

**Pace University**

**The Influence of Innovative Product Design and  
Brand Personality on Purchase Intent -  
Valuing Persons with Special Needs**

**Dawn DiStefano**

A Dissertation Submitted to  
The Faculty of the Lubin School of Business  
In partial fulfillment of the requirements for the degree of  
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The dissertation of Dawn DiStefano has been approved:

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Pradeep Gopalakrishna

Dissertation Chairperson

---

Canan Corus

---

Patricia Eckardt

---

Anne Emmerson

---

Berry Wilson

Pace University  
September 18, 2019

## **Abstract**

There are many individuals with developmental disabilities who have the capacity to make everyday purchases and frequent particular brands. Out of the 54 million of Americans that have either a physical or intellectual disability in the United States (ADA National Network, 2019), there are as many as 200 million people worldwide who have an intellectual disability; and there is minimal data that exists on their purchasing preferences and buying habits (“Quantifying The Market,” 2015).

This study empirically investigates the innovative product design and brand personality preferences of professional staff and persons supported on purchase intent within the ACLD community. Adults and Children with Learning and Developmental Disabilities (ACLD) is a Long Island not-for-profit agency that serves the needs of over 3,000 individuals with developmental disabilities (a.k.a. persons supported).

Improving the marketing value of this underserved population (Burnett & Paul, 1996, “Quantifying The Market,” 2015) can positively impact future purchasing decisions of persons supported, which would allow this equitable population to lead more enviable lives while advancing theoretical research.

## **Acknowledgements**

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I would especially like to thank my husband, family, friends, colleagues, and students for supporting me through this entire experience. Their continued support has allowed me to address a need and to, hopefully, make a difference in the lives of people supported by ACLD and similar agencies. This journey has allowed me to become a better person as I strive to make a better tomorrow for my daughter, Mia, and others!

# Contents

## Chapter

<b>1.</b>	<b>Introduction.....</b>	<b>8</b>
	Innovative Product Design.....	9
	Brand Personality.....	10
	Purchase Intent.....	11
	The Problem.....	13
	Objectives of the Study.....	14
	Importance of the Study.....	15
	Contributions and Limitations .....	16
	Empirical Results and Conclusions .....	16
<b>2.</b>	<b>Literature Review .....</b>	<b>17</b>
	Innovative Product Design	
	Emergence of Innovative Product Design: Its History .....	17
	Innovative Product Design: A Construct .....	19
	Innovative Product Design Attributes.....	22
	Brand Personality	
	The Prequel to Brand Personality: Thank you to our Colleagues in Psychology and the Social Sciences .....	23
	The Evolution: Brand Personality.....	27
	The Emergence of a Construct: Brand Personality.....	29
	Brand Personality Dimensions.....	29
	People with Developmental Disabilities: An Emerging Market	
	Americans with Disabilities: Facts.....	35
	Purchasing Power of Americans with Disabilities .....	36
	The Global Perspective of Persons Supported .....	37
	What Is a Developmental Disability?.....	38
	Developmental Disabilities and Personality.....	38
	The Overlap of Innovative Product Design and Brand Personality on Purchase Intent by People with Developmental Disabilities...39	
	The Theoretical Model: The Gap.....	40
<b>3.</b>	<b>Research Methodology .....</b>	<b>41</b>
	Theoretical Model.....	41
	Organization In Focus.....	42
	Persons Supported.....	42
	Professional Staff .....	43

	Measures .....	44
	Descriptive Statistics.....	47
	Normality .....	48
	Reliability.....	49
	Procedure .....	50
<b>4.</b>	<b>Analysis and Results .....</b>	<b>52</b>
	Discussion of Analysis.....	52
<b>5.</b>	<b>Conclusion of Study .....</b>	<b>57</b>
	Discussion .....	57
	Innovative Product Design.....	57
	Brand Personality .....	60
	Persons Supported Coping Skills.....	61
	Limitations of the Study.....	62
	Government Funding .....	63
	Future Research .....	64
	Contributions to Marketing Literature .....	65
 <b>Appendix</b>		
A.	Purchase Intent Scale .....	66
B.	Innovative Product Design Scale .....	67
C.	Brand Personality Scale .....	68
D.	The Model .....	69
E.	Persons Supported Coping Scale .....	70
F.	Sample Consent Form.....	71
G.	Statistical Framework .....	75
H.	Table Regressions .....	76
	<b>References .....</b>	<b>77</b>

# Figures and Tables

## Figures

1. Figure 2.1: Brand Personality Framework.....	30
2. Figure 2.2: The Big Five Model .....	31
3. Figure 3.1: Theoretical Framework .....	41
4. Figure 3.2: Moderating Framework.....	43

## Tables

1. Table 1.1: Antecedents and Consequences: Brand Personality Dimensions .....	32
2. Table 3.1: Innovative Product Design Means and Standard Deviations .....	44
3. Table 3.2: Brand Personality Product Design Means and Standard Deviations ....	45
4. Table 3.3: Persons Supported Coping Skills Means and Standard Deviations.....	46
5. Table 3.4: Purchase Intent Means and Standard Deviations.....	46
6. Table 3.5: Descriptive Statistics – Persons Supported.....	47
7. Table 3.6: Descriptive Statistics – Professional Staff.....	48
8. Table 3.7: Reliability Analysis .....	49
3. Table 4.1a: Regression Analysis – All Data Responses .....	52
4. Table 4.1b: Regression Analysis – All Data Responses .....	52
5. Table 4.1c: Regression Analysis – All Data Responses .....	53
6. Table 4.2a: Regression Analysis – Professional Staff .....	53
7. Table 4.3a: Regression Analysis – Persons Supported.....	53
8. Table 4.3b: Regression Analysis – Persons Supported.....	54
9. Table 4.3c: Regression Analysis – Persons Supported.....	54
10. Table 4.4: Hypotheses.....	56



## **Chapter 1**

# **Introduction**

Society is changing and with 21<sup>st</sup> century technological advances, it is important to examine consumer interaction and preferences that could lead to the success of new product innovations (Gruner & Homburg, 2000) and positive consumer purchase intent.

New product innovation can be rooted in product qualities such as aesthetics, unique product features, or carefully thought through ergonomic factors in a product (Moon, Park, & Kim, 2015).

Brand personality preferences such as sincerity, excitement, competence, sophistication, and ruggedness contribute to the human characteristics that consumers attribute to a particular brand and what aspects may best describe them when frequenting brands (Aaker, 1997).

Having a better understanding of consumer preferences can more accurately predict consumer purchase behavior. Further investigation of brand characteristics as well as innovative features/benefits are important to the product development process. Examining product qualities, taking notes on the characteristics of consumers who are connecting with certain brands, and empirically reporting on their impact during the decision-making process can yield valuable results.

## ***Innovative Product Design***

A review of studies regarding innovative product design (IPD) have been beneficial in exploratory research (Liu, 2003; Moon, Miller, & Kim, 2013; Ravasi & Lojacono, 2005; Roy & Riedel, 1997; Ulrich, 2011). Prior literature states that many innovative products introduced in the U.S. fail each year (McMath & Forbes, 1998; Bobrow & Shafer, 1987). Additionally, research pinpoints monetary loss of innovative products to early stages of market introduction (Robertson, 1971). Research regarding success potential of a product idea and factors that affect innovation (Goldenberg, Lehmann, & Mazursky, 2001) can be beneficial for new product development.

One particular article of interest for this study by Moon, Park, and Kim (2015), in which their IPD scale was refined and validated, provides supportive measurements of three prevailing attributes: (1) aesthetics, (2) features, and (3) ergonomics that affect the unique consumer perceptions of product innovativeness. Its focus contributes to the marketing discipline on consumer behavior and the importance of innovative product design (Appendix B).

Such radical innovations translate into a firm's financial performance. It is posited that radical innovation is a critical element toward growth, wealth, and success of firms across nations (Tellis, Prabhu, & Chandy, 2009). With 21<sup>st</sup> Century globalization and the increased access to products around the world, it is imperative that marketers adapt to an evolving marketing environment that embraces innovation in design. This will allow organizations to better meet their consumers' changing needs.

The interaction between product qualities and customer perception of their qualities could generate brand personality; formally defined as “the set of human characteristics associated with a brand” (Aaker, 1997). Brand personality is a multidimensional construct, one that includes sincerity, excitement, competence, sophistication, and ruggedness where some dimensions may be more relevant and expressive of particular brands than others (Aaker, 1997). Humanizing a brand can serve as a self-expressive meaning beyond the practical function of product-related attributes.

### ***Brand Personality***

Intellectualizing human personality as it relates to consumer behavior allows marketers to better understand the underpinnings of what motivates their consumers to make certain purchases. Examining symbolism among brands could help practitioners understand how consumers connect with brands.

Research by Keller (1993) supports said brand symbolism as a self-expressive function. Symbolic use of brands is also supported as it permeates brands via human personality traits (Gilmore, 1919). Brands can be as influential as celebrities or famous historical figures (Rook, 1985) because brands tend to relate to an image or individual (Fournier, 1994).

Prior research suggests that the relationship between human characteristics and an individual’s actual or ideal self shows a preference toward particular brands among communicated brands (Malhotra, 1981; Sirgy, 1982).

The five symbolic dimensions that are investigated when utilizing Aaker's (1997) Brand Personality (BP) scale (Appendix C) are sincerity, excitement, competence, sophistication, and ruggedness among brands. This valid and generalizable scale can aid with present day scholarly research to better understand consumer brand choice among varying consumer segments.

Markets today are becoming more consumer centric. It is no surprise that there is a resurgence of research on new product development and organizational interaction with consumers (Gruner & Homburg, 2000). It is essential that marketing practitioners understand the impact of consumer interaction on innovative product design and observe their brand preferences toward purchase intent.

### ***Purchase Intent***

Consumer buying intentions and attitudes toward purchase intent have led scholars to pursue alternative routes to better predict purchase behavior (Juster 1960; Heald 1970; Gabor & Granger 1972). Prior literature regarding buying intentions claimed to be more accurate predictors of purchase behavior than attitudes (Klein & Lansing 1955; Tobin 1959; Adams 1964). Still there was room for growth with predicting purchase intention (Juster 1966; Theil & Kosobud 1968; Pickering & Isherwood 1974). There appeared to be a shift in the literature that involved the development of an eleven-point purchase probability scale known as the Juster Scale (1964). The Juster Scale was primarily used to predict varying types of consumer purchases.

Former intention scales requested their participants to rate their likelihood of purchase using verbal intention descriptors. These scales ranged from three-point options

(e.g. yes, no or don't know) (Klein & Lansing 1955; Tobin 1959; Heald 1970), while others used nine-point semantic differentials (Pickering & Greator 1980).

Ferber and Piskie (1965) and Worcester & Burns (1975) point out the limitations with a yes-no scale and with a number of gradational adjectives due to individual interpretation. Juster primarily contends that the problem with predictive performance of intentions is the failure for the scale to predict the sizable number of actual purchases utilizing a large sample population when reporting buying intentions (Juster, 1966; Theil and Kosobud, 1968). Hence, the development of the eleven-point probability scale (Juster, 1964) which uses the odds (e.g. out of ten) which consumers are accustomed to and would aid with questionnaire design. The number of points on the scale would also allow participants to describe their buying plans precisely.

Gruber (1970), Clawson (1971), and Day (1987) all further investigate the use of the Juster Scale and confirmed the benefits for marketing professionals with the scale's ability to accurately forecast consumer purchases. This exploratory study utilizes the Juster Scale (Appendix A) to predict consumer purchase intent among a chosen sample population because predicting consumer behavior is as important today as it was over twenty-five years ago when this scale was first developed.

## **The Problem**

Business owners and/or senior management should take into account a number of considerations when marketing to individuals with developmental disabilities (hereafter persons supported). Prior literature focuses on individuals living in the U.S. who have a disability ‘of some sort’ and speaks to the constraints of this consumer population (Burnett & Paul, 1996; Baker & Bellordre, 2004; Baker, 2009; Mason & Pavia, 2006). Ways to effectively and sustainably implement viable marketing strategies toward persons supported can present diverse complications. This exploratory study can provide a foundation toward viable options when marketing to persons supported.

Literature supports that persons supported are often looked upon as an expense rather than a promising market segment (Burnett & Paul, 1996, “Quantifying The Market,” 2015). Research in this area could prove a win-win scenario if marketing practitioners can better understand how persons supported associate and connect with different brands. Additionally, many organizations are foregoing significant opportunities to market to this target population due to their limitations in design agendas (Wilcox, 2005) and underestimating their purchasing power (Yin et al., 2018). Inclusive design allows those living with disabilities the same opportunities as other populations who do not notice that a particular product is an inclusively designed one. Hence the pairing of the brand personality and innovative product design constructs on consumer purchase intent advocating for persons supported as a viable market segment.

In recent years, companies have been making strides toward inclusion with their marketing efforts: (1) Gerber who features Lucas, the first Gerber baby with Down

syndrome in its Spring 2018 campaign (Klein, 2018), (2) Benefit Cosmetics featuring Kate Grant, its first model with Down syndrome in its Spring 2019 campaign (Sharkey, 2019), and (3) River Island with its marketing campaign, *Do Expect Greatness* which features the hashtag #labelsareforclothes (Young, 2018). Other companies such as Tommy Hilfiger and its Spring 2018 adaptive clothing line is designed for individuals with disabilities (Komar, 2018) as well as Target's brand, *Cat and Jack* which also promotes adaptive apparel that includes a special selection of sensory-friendly clothing that has become one of Target's largest brands ("Design For All," 2017; "Cat & Jack Includes Adaptive Apparel," 2018).

The persons supported market is comprised of two groups: (1) professional staff and (2) persons supported, whose purchasing habits will provide a better understanding of how their preferences impact the purchase intent of persons supported directly and indirectly through their support system.

Further evaluation of this theorized relationship may support enhanced government funding. A potential moderating factor may be persons supported coping abilities, which may strengthen or weaken the brand personality and purchase intent relationship. These factors will also be examined in connection with the proposed research.

### ***Objectives of the Study***

This study will investigate the innovative design and brand personality preferences of two segments that make up the market for people with developmental disabilities: (1) professional staff and (2) persons supported. Having a better understanding of how these segments connect with the brands they frequent and what features and benefits are important to them could better explain how innovative product design and brand

personality preferences impact purchase intent for persons supported. Further development of enhanced government funding among this population as well as a potential moderator (e.g. persons supported coping abilities), may provide deeper insight into the needs pertaining to this equitable population. The theoretical framework for the proposed study is depicted herein (Appendix D).

Recognizing people with developmental disabilities as a significant market rather than a cause for concern would help bridge the gap between this underserved consumer base and today's marketing efforts. Industry could expand their reach to a large and generally marginalized market and advance theory by investigating the innovative product design and brand personality paradigm to better model the underpinnings of consumer purchase intent.

There is a need to expand marketing strategies to bridge the gap between this underserved and traditional population.

### ***Importance of Study***

By doing so, today's practitioners can be both profitable and sustainable while becoming more sensitive to consumer needs which should lead to increased customer satisfaction and an enviable life.

This study also contributes to academic theory in that prior research pertaining to both innovative product design and brand personality can be further developed to better understand purchase intent in an underserved market.



### ***Contributions and Limitations***

There is room for exponential growth with this theoretical contribution as well as limitations of this interdisciplinary study. In laying the foundation for future study regarding persons supported, this study is limited to individuals with developmental disabilities. Future studies may focus on streamlining marketing efforts for individuals with physical disabilities or perhaps adults with acquired disabilities (e.g. accident or illness developed over a person's lifetime) versus developmental disabilities at birth that may surface as early as three to six years of age or as a result of early childhood trauma.

### ***Empirical Results and Conclusion***

The results of this embryonic study provides empirical support toward future inclusive studies for the persons supported market. Implications of study findings, the limitations of the study, and the direction for future research have been integrated into this body of work.

## **Chapter 2**

### **Literature Review**

#### **Innovative Product Design**

##### ***Emergence of Innovative Product Design: Its History***

Product innovation dates back to the production era when products were considered commodities and could practically sell themselves. Manufacturers were more concerned with product innovation than satisfying consumer needs. Marketing was attributed to the integration of the social sciences which was thought to provide a better perspective on economic and consumer behavior issues (Alderson, 2006). The marketing of products was viewed as an exchange (Bagozzi, 1975).

Prior to World War II, during the Great Depression, people were conditioned to consume less. At the same time, production and distribution techniques were starting to become more sophisticated. Manufacturers began producing more, but customers could not afford to buy at the rate products were being developed. This is when the adaptation of marketing efforts began to evolve and the introduction to the four P's (Kotler & Levy, 1969), the advent of benefit segmentation (Haley, 1968), positioning (Trout & Ries, 1975; Gilmore, 2002) product differentiation and product planning (Day, 1975), and pricing (Tellis, 1986) became instrumental to businesses when marketing their products.

It was not until the end of World War II when soldiers came home, started families, and attained employment that consumer demands grew. New product adoption and the

diffusion of innovation theory (Rogers, 1976) along with the evolutionary process within competitive markets (Lambkin & Day 1989) led society through the sales era into the product-oriented era. Goods were being classified (Bucklin, 1963) and theories of motivation were being expanded (Maslow, 1943). It was thought that if businesses did not meet consumer needs, they would no longer be viable (Levitt, 1960).

It was a time where businesses started believing in competitive strategy (Porter, 1979; Woodruff, 1997) and sustaining a competitive advantage among its competitors was critical.

The transition of products being purchased for utilitarian purposes was now being expanded to more hedonic purchases and the emphasis was on consumer attitudes (Lavidge & Steiner, 1961; Petty & Caccioppo, 1983; Oliver, 1999; Ahluwalia, 2000) and consumer choice (Holbrook & Hirschman, 1982; Tversky & Khaneman, 1974; Khaneman & Tversy, 1984; Thaler, 1985; Bettman et al., 1998, Thaler 1999).

Most successful businesses today realize that they need to be more market-oriented to better satisfy consumer needs and wants (Kohli & Jaworski, 1990; Narver & Slater, 1990). The changing role of marketing from being transaction-based to relationship-based supports marketing being part of the entire organization, not just the marketing department and/or working in silos (Webster, 1992).

Marketing has evolved to co-creating products and placing emphasis on value co-creation (Pine et al, 1995; Peppers & Rogers, 1999; Franke et al., 2009; Argo & White, 2012). Adopting more consumer centric marketing strategies can aid with achieving one's marketing objectives (Kotler & Keller, 2003).

As we enter the holistic marketing era, marketing practitioners must implement strategies according to what consumers' value. This dates back to when services marketing was on the rise (Parasuraman et al., 1985; Brown & Swartz, 1989; Cronin & Taylor, 1992). Consumers today are looking for the entire service delivery package also known as experiential marketing practices (Pine II & Gilmore, 1998; Vargo & Lusch, 2004; Hult et al, 2011).

Kumar (2015) speaks to the evolution of marketing and it is fascinating to see that over six decades, not only has it become its own discipline, but has now experienced complete integration of various business functions including senior marketing positions (e.g. CMO). The idea that marketing analytics need to be properly measured, the advent of social media marketing, and with the impact of social networking sites, there is a greater knowledge of what consumers are purchasing and also why they purchase.

Investigating the innovative product design preferences and its importance on the market for those with developmental disabilities, including professional staff and persons supported, would yield beneficial results toward purchase intent.

### ***Innovative Product Design: A Construct***

Research related to innovative product design (IPD) was directed toward conceptualizing and testing aesthetics regarding product design (Bloch, Brunel, & Arnold, 2003). Others focused on aesthetic attributes and purchase intentions (Seva & Helander, 2009), while others such as Moon, Miller, & Kim (2013) developed a scale of interest regarding aesthetics that was later redefined through their seminal work (Moon, Park, &

Kim, 2015) as a reliable measure of aesthetics, features, and ergonomics regarding IPD research.

A powerful yet sometimes neglected strategic tool worth exploring is product design (Kotler & Rath, 1984). The scientific discipline of human-machine-environment, human factors, and ergonomics are important areas of product safety, comfort, productivity, and ease-of-use products and systems (Wickens, Gordon, Liu, & Lee, 1998). Adding aesthetics and ergonomics considerations to product design could provide additional insight on human design decisions that supplement industrial and product designers 'educated guesses,' 'talents,' or 'gut feelings' (Noblet, 1993). Including aesthetic considerations to human factor research would help make better design decisions and evaluations (Liu, 2003) and foster innovation (Day, 1996). Design-driven renewal stimulated and supported by design through continuous product innovation with periodic revisions could be of great value (Ravasi & Lojacono, 2005) toward continued product success; especially, where products can be refined to better cater to persons supported.

Cooper and Kleinschmidt (1987) spoke to how success of a product is contingent upon creating exceptional product characteristics and having consumer perceptions mirror these sentiments. There are a number of elements that contribute to why product design is essential to organizational success (Verganti, 2008) as it drives consumer demand. Zirger and Maidique (1990) highlight the need for product design when entering new markets and Black and Baker (1987) stress the need for product design leading toward commercial success. As consumer demand evolves, so must the strategy to revitalize products to sustain a competitive edge (Moon et al, 2013).

IPD research conceptualizes how consumers perceive an organization's product attributes. In order to satisfy consumer needs, they need to identify the innovativeness of an organization and how it performs in the market. It also allows marketing practitioners to better position their products and innovation strategies toward favorable consumer behavior (Moon et al, 2015).

Schumpeter (1950) viewed innovation as 'creative destruction' toward the marketability of products. Although there have been reported a number of innovative product failures just the same (Chan & Ip, 2010). Subsequent research attributes this failure to lack of innovativeness (Moon et al, 2013). Researchers must realize that lack of innovation alone does not solely contribute to these product failures, but a differentiation strategy of product design needs to accompany an organization's innovation efforts (Hertenstein, Platt, & Veryzer, 2005).

Design is referred to very differently in existing literature. Walsh (1996) views it as a new idea that instructs how to make something new or in a form that didn't exist prior. Ulrich (2011) imagines forms of goods and services that can address consumer needs and Crawford and Di Benedetto (2007) view it as a way to address human and technological need when manufacturing a product.

IPD research measures whether innovative product attributes (e.g. aesthetics, features, and ergonomics) are being developed through product design improvements (Appendix B). It is important to better understand the relationship between innovative product design and brand personality on purchase intent. Product design itself is futile (Candi, 2010).

## **Innovative Product Design Attributes**

The *aesthetic* attribute pertains to the appreciation of beauty via consumer perception. Prior research posits that appearance and outward appeal of a product is of importance (Bloch, 1995; Seva & Helander, 2009). Visual qualities are thought to influence product sales (Liu, 2003; Roy & Riedel, 1997). When choosing among product alternatives, with price and functionality being equal, consumers tend to purchase products with the most aesthetic value (Kotler and Rath, 1984). Aesthetics in product design is ultimately used to promote positive consumer behavior. It is inclusive of design characteristics that contribute to the overall attractiveness of the product and is important to product success.

The *feature* attribute can be viewed as many things: dimensions, services, performance, among others (Crawford & Di Benedetto, 2007) and is based on a product's functional value. Innovative products may appeal to consumers due to their new or improved functionality (Roy & Riedel, 1997). These features are translated into consumer benefits once operationalized (Black & Baker, 1987; Souder & Song, 1997).

The *ergonomic* attribute is directed toward consumer safety, comfort, and user friendliness in product design (Takala & Kukkonen, 1987; Fagerberg, Stahl, & Hook, 2004). Realizing its importance when designing products is vital to sustaining a competitive edge (Nussbaum, 1993). Prior research has focused on human safety, comfort, and user friendliness (Walsh, 1996; Corsini, 2002; Chang, 2008), but more emphasis is being placed on ergonomics as another dimension being investigated (Liu, 2003). Aesthetics and features alone are impractical without the integration of ergonomics

(Norman, 1998). When working with persons supported, ergonomic attributes should prove contributory to this body of work.

Investigating innovative product design preferences for persons supported can help marketing practitioners and academic scholars better understand how they drive purchase intent.

## **Brand Personality**

### ***The Prequel to Brand Personality: Thank You To Our Colleagues in Psychology and the Social Sciences***

Brand personality is a deep-rooted construct in consumer behavior literature. Despite the interest among academic scholars, there has been variation regarding the brand personality construct over the years (Sirgy, 1982). This has limited the conceptual understanding of brand personality, the role it plays with humanizing brand personality traits, and its symbolic use with brands.

Theories of the mind date back to the 19<sup>th</sup> Century with Sigmund Freud (1900b) and his work of psychoanalysis. He believed that one's personality consisted of three elements: (1) id (driven by needs), (2) ego (driven by reality), and (3) superego (driven by morality). The study of psychoanalytic theory focuses on the theory of personality organization and its development which guides psychoanalysis (McLeod, 2007). Since Freud's publication of *The Interpretations of Dreams* (1900a), his psychoanalytic theory has experienced many refinements.



Although an early supporter of Freud, as they shared the same fascination with the unconscious mind, Carl Jung challenged Freud's theory (Jung, 1959; McLeod, 2018). Jung believed that an individual's personality was made up of three interacting elements: (1) the ego (representing the conscious mind), (2) personal unconsciousness (representing both temporarily forgotten information and repressed memories), and (3) the collective unconscious (representing prepared conditioning or universal predispositions from our inherited past). He believed that psychic energy of an individual was motivated by a range of behaviors and that the nature of the unconscious consists of repressed memories specific to the individual and one's inherited past. The cause of one's behavior is rooted in past experiences but is also influenced by one's future aspirations.

The work of Rogers (1951) focused on the theory of individual self-enhancement. Levy (1959) then argued that consumer mental capacity is limited and is knowingly affected by symbolism when encountering and identifying goods in the marketplace. His efforts stimulated consumer behavior researchers to better understand the influence of self-concepts on consumer purchase behavior. As a result, a number of self-concept models came about to better describe consumers' self-concepts.

Grubb and Grathwohl (1967) posited that self-concept is of value to the individual and one's behavior can be attributed to the protection and enhancement of self-concept. They further state that the purchase, display, and the use of goods promotes symbolism to the individual as well as others. The positive purchase behavior of an individual is ultimately directed toward enhancing self-concept through the consumption of goods as symbols of their own psyche.

Schenk and Holman's (1980) concept of situational self-image speaks to product symbolism with the use of certain goods and the self-expression being exuded in a given situation. Therefore, products that are noticeable may have high repatronage. Additionally, brands may influence consumers to express their self-images, whether it be one's actual self or ideal self. There is a behavioral component that recognizes that consumers have many self-concepts that can influence consumption of a particular brand in one situation versus another.

Generally the self-concept has been interpreted from a number of viewpoints. Burns (1979), Rogers (1951), and Morris, (1979) investigated the actual self which refers to how an individual perceives him/herself. The social self refers to how a person depicts him/herself to others, and the global self-attitude (e.g. self-esteem or self-satisfaction) has been known to contribute to the conscious judgment of the actual self to the ideal or social self. Epstein (1980) investigated the motives of self-esteem and self-consistency with one factor positively influencing the self-concept and the other referring to the tendency of an individual to behave consistently with the view of him/herself.

Sirgy (1982) used the self-image value (the level of value one places on their actual self-concept) and self-image belief (the level or perception level associated with one's self-image). He also developed the self-image/product-image congruity theory (Sirgy 1981, 1982, 2015). This theory focused on product imagery that contributes to the self-schema involving similar images. For example, a product that is perceived to have prominent status may activate the self-schema involving self-concept. The individual then links him/herself with the product and formulates the self-image belief that he/she is of prominent status. This self-image belief can also be negative and the self-image/product-image congruity can

adversely impact an individual's purchase motivation. From a self-esteem viewpoint, a consumer would be motivated to purchase a positively valued product to maintain a positive self-image and avoid negatively valued products perceived to have a negative self-image. Alternatively, self-consistency speaks to the consumer being motivated with what image (positive or negative) is congruent with his/her self-image belief. Depending on what needs are trying to be satisfied when purchasing a particular product, the result of consumption will be attributed to the motivational state stemming from a consumer's self-esteem and self-consistency needs.

Consumer behavior as it relates to the function of self-concept/product-image congruity began with Gardner and Levy (1963) and Levy (1959). Their belief was that consumers would naturally prefer products with images that were fitting with their self-concepts.

Later studies by Jacobson and Kossoff (1963), Gutman (1973), Morris and Cundiff (1971), Gentry and Doering (1977), Golden et al. (1979) and Allison et al. (1980) contributed to consumer behavior literature as a function of direct self-concept influences.

Malhotra (1981) and Sirgy (1982) ultimately realized that the more consistent this symbolism describes an individual's actual or ideal self to the description of a particular brand, consumer preference for that specific brand will increase.

## ***The Evolution: Brand Personality***

Symbolic use of brands is widespread in that consumers link human personality traits with brand symbols. Advanced research has given considerable attention to how brand personality evokes self-expression (Belk, 1988) as well as how to categorize brands (Halliday 1996). The brand personality construct has also been applied to consumer preference and usage research (Blackwell, Miniard, & Engel, 2001; Biel, 1993) in addition to marketing brands culturally (Plummer, 1985).

The brand personality construct is instrumental to consumer behavior research due to its symbolic function pertaining to the set of human characteristics associated with brands (Keller, 1993).

Some children believe that Tony the Tiger is truly human and that he is the reason why the cereal tastes great. Others have an association to peppermint patties where they believe consuming this candy will create a cool, refreshing sensation. There are times where adults believe that Disney characters are real individuals (e.g. celebrity status) and that they represent true happiness (Newman, Diesendruck, & Bloom, 2011). Aligning consumer preferences to a firm's brand is central to a firm's marketing strategy as it focuses on the motivations of consumer choice amid varying alternatives.

Maslow (1943) spoke of consumer motivations that were predicated on satisfying a hierarchy of needs: (1) physiological needs (breath, food, water), (2) safety and security needs (health, family, social stability), (3) love and belonging needs (friendship, intimacy,

sense of connection), (4) self-esteem needs (confidence, status, respect of others), and (5) self-actualization needs (meaning and inner potential, experience, purpose).

Howard & Sheth (1969) set the foundation for consumer behavior being referred to as a ‘learned behavior’ through imagery, stimuli, and reinforcement.

Calder and Tybout (1987, p136) provided further insight on the three types of knowledge gained by consumer research: (1) everyday knowledge, (2) scientific knowledge, and (3) interpretive knowledge. Consumer research “*seeks to produce knowledge about consumer behavior.*” Seemingly simple, consumer behavior is complex. As a result, the focus to sound consumer research is the knowledge that it produces.

Building lasting relationships with customers that focus on connecting the organization with its product/service delivery and financial accountability to its consumers (Moorman & Rust, 1999) as well as appreciating the contribution of human personality as it relates to branding (Aaker, 1997) is certainly not a thing of the past. Personality traits among brands occur due to how consumers associate with the brands directly. It is thought that these same traits are transferred directly to the brand (McCracken, 1989). There are also indirect connections through product-related attributes such as product category associations and brand names (Batra, Lehmann, & Singh, 1993).

Marketing has evolved from satisfying more utilitarian needs (Alderson 2006; Bagozzi 1975) to satisfying more hedonic needs (Holbrook & Hirschman, 1982; Zajonc & Markus, 1982; Shiv & Fedorikhin, 1999; Lerner, Li, Valdesolo, & Kassam, 2015) which has transformed marketing from being transaction-based to relationship-based (Webster,

1992). This evolution has provided a better understanding to the ‘psychology’ of consumer choice (Khaneman & Tversky, 2013; Thaler, 1985; Thaler, 1999).

Bettman et al. (1998) delved into constructive consumer choice processes. Their premise was that consumers have limited processing capacity and not well-defined existing preferences. They provided an integrative framework for constructive choice that focused on several issues such as framing and preferences over time. The study was to better understand what influenced consumers to make decisions: (1) consumer goals, (2) complexity of decisions, (3) choices among the options, (4) how you are being asked, and (5) how choices are presented/framed.

Williams and Poehlman (2017) investigated the benefits of penetrating the unconscious mind and its process involving: (1) assimilation, (2) priming, (3) association, and (4) contagion in consumer research.

Continued research to further comprehend what goes on in the minds of consumers would be of great value to marketing practitioners and academic scholars alike.

### ***The Emergence of a Construct: Brand Personality***

#### **Brand Personality Dimensions**

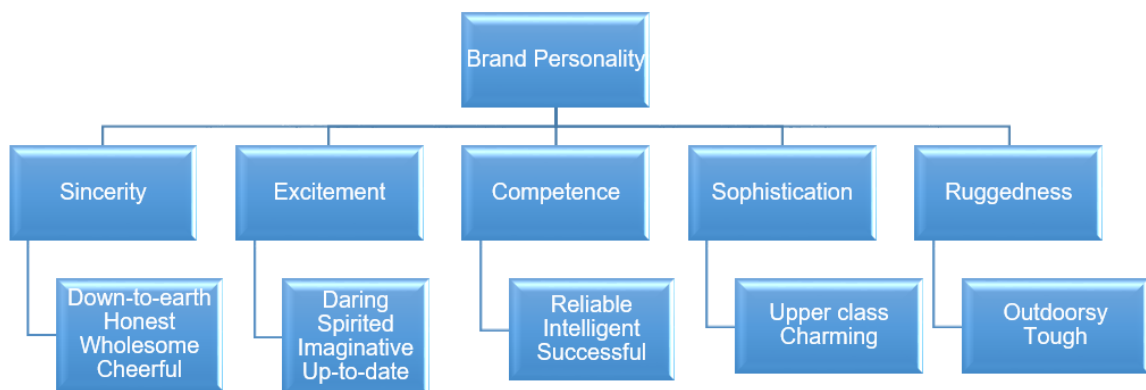
The brand personality framework and its scale development provides insight to the importance of brands developing brand personalities (Aaker, 1997).

Personality traits developed in stages until refined to reflect Aaker’s (1997) brand personality model (Figure 2.1) in her seminal work. Substantial psychological research

has contributed to the creation of human personality and its series of scales (Tupes & Christal, 1958; Norman, 1963), the NEO Personality Inventory as well as Structure of Interpersonal Traits (McCrae & Costa, 1989a), the ‘Big Five’ Trait Taxonomy (John & Srivastava, 1999), and ACL (Piedmont, McCrae, & Costa, 1991).

Additional scales that accompanied this type of research among academics and practitioners included the work of Alt and Griggs (1988), Batra, Lehmann, and Singh (1993), Levy (1959); Malhotra (1981); Plummer (1985); and Wells, Andriuli, and Seader (1957). These efforts contributed to the development of a reliable measurement scale that could compare personalities of brands across product categories allowing scholarly research to pinpoint prevailing human characteristics of brands.

**Figure 2.1**  
**Brand Personality**

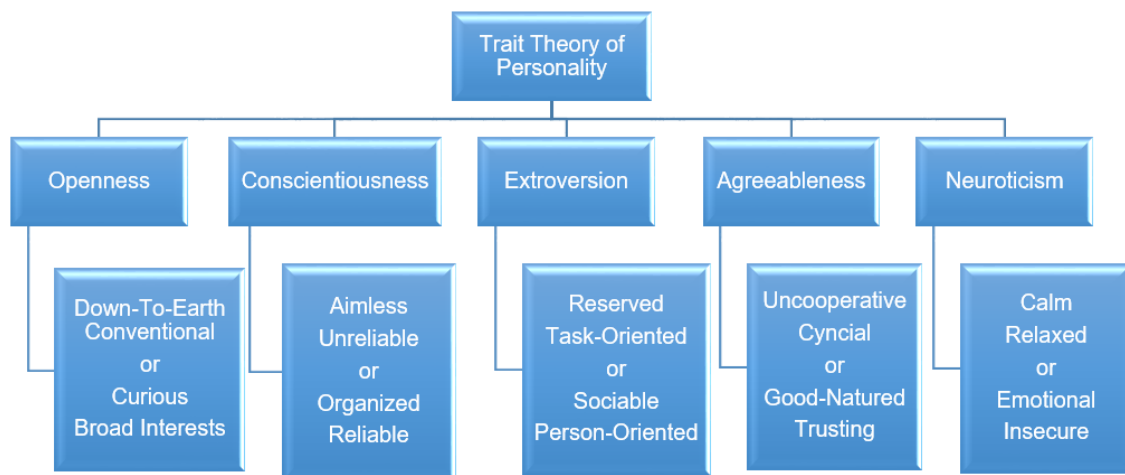


The five dimensions that are encompassed in the brand personality framework are: sincerity, excitement, competence, sophistication, and ruggedness. Within these five dimensions are fifteen (15) facets that include forty-two (42) items that are scored on a

five-point Likert-type scale ranging from *not at all descriptive* (1) to *extremely descriptive* (5) for each brand rated (Appendix C).

These facets are representative of select traits from personality psychologists Church and Burke (1994) and McCrae and Costa (1989b) that provide the scope to serve as the framework pertaining to the similarities and differences among alternative impressions of the ‘Big Five’ human personality dimensions (Figure 2.2): (1) openness, (2) conscientiousness, (3) extroversion, (4) agreeableness, and (5) neuroticism (McCrae & Costa, 1989b).

**Figure 2.2**  
**The Big Five Model**



In order to ensure that the brand personality framework was reliable, valid, and generalizable, exploratory study took place which resulted in brands having these five marked personality dimensions. The series of factor analyses ran established the strength of the brand personality dimensions and high levels of reliability through test-retest correlations and Cronbach’s alphas were confirmed. The confirmatory factor analyses



provided support to the strength of the five dimensions and the framework of the brand personality dimensions, as represented by Aaker's (1997) scale that proves reliable, valid, and generalizable.

Existing research has suggested that brand personality increases consumer preference and that brand equity is driven by consumer choice (Khaneman & Tversky, 1984; Thaler 1985; Biel 1993). Qualifying antecedents and consequences of brand personality dimensions are listed in Table 1.1 (Eisend & Stokburger-Sauer, 2013).

**Table 1.1**  
Antecedents and Consequences of BP Dimensions

Variable	Definition
<b>Antecedents</b>	
<u><b>Advertisements</b></u>	
<b>Complexity</b>	The degree to which an ad is complex and relatively difficult to understand.
<b>Consistency</b>	The degree to which an ad (campaign) is coherent and in agreement with itself.
<b>Hedonic Benefit Claim</b>	A message with a hedonic benefit claim describes hedonic needs for sensory pleasure, while a utilitarian claim concerns a pragmatic benefit (Lim & Ang, 2008).
<u><b>Product Characteristics</b></u>	
<b>Branding</b>	Activities that support the creation of a unique and inimitable brand.
<b>Country of Origin (COO)</b>	The country of manufacture, production, or growth where a product comes from, coded as home country or other country (Peterson & Jolibert, 1995)
<b>Product Design</b>	The measures and tools to create a product, its form and packaging.

<b><u>Consumer Demographics</u></b>	
<b>Age</b>	The age of the consumers.
<b>Education</b>	The level of education of the consumers.
<b>Gender</b>	The gender of the respondents, coded as female or male
<b>Nationality</b>	The nationality/home country of the respondent (US or other).
<b><u>Consumer Psychographics</u></b>	Set of brand-congruent human characteristics possessed by a person.
<b>Prior Attitude</b>	Prior positive evaluation of and interest in the product category.
<b>Self-Confidence</b>	The extent to which a consumer feels capable and assured with respect to his or her (marketplace) decisions and behaviors (Bearden et al. 2001).
<b><u>Consumer Brand Experience</u></b>	Consumer's prior experience with the brand (including prior brand use, brand familiarity, and brand expertise)
<b>Consequences</b>	
<b>Brand Attitude</b>	Overall evaluation of and attitude toward the brand (Ajzen and Fishbein, 1977).
<b>Brand Image</b>	Attributes of the brand as perceived by the consumer, such as similarity, prestige, and distinctiveness, that primarily result from the consumer's drive to fulfill goals of self-continuity or self-verification, self-distinctiveness, and self-enhancement through brand consumption (Chernev et al., 2011)
<b>Brand Relationship Strength</b>	The strength of the binding of the consumer with the brand (e.g. attachment, connection, and relationship strength).
<b>Brand commitment</b>	Attitudinal willingness to repurchase and patronize a brand combined with favorable attitudes (Fournier, 1998).
<b>Purchase/Behavioral Intentions</b>	Behavioral intention and willingness to purchase and use a brand; behavioral long-term dedication to the brand (Chaudhuri and Holbrook, 2001).
<b>Purchase Behavior/Use</b>	Actual purchase behavior or use of a brand.

In order to experience an increase of consumers' frequenting specific brands, marketing practitioners must continue to adapt to the changing marketing environment (Levitt, 1975; Porter, 1979; Woodruff, 1997; Kumar, 2015) and better understand how consumers associate with brands (Aaker, 1997; Aaker, Fournier, & Brasel, 2004).

Fournier (1994) stated that brand loyalty begins with forming the proper brand relationships. Oliver (1999) said that while customer satisfaction and customer loyalty are linked, customer loyalty involves constant care. He confirmed that building consumer relationships takes place with the four-stage loyalty model at varying levels: (1) cognitive (rational), (2) affective (emotional, liking), (3) conative (desire or intent), and (4) action (behavior) in consumer behavior literature.

Holbrook and Hirschman (1982) focused on the use of hedonics in making purchase decisions and its benefits toward increasing positive consumer behavior.

Khaneman & Tversky (1984) found that basic consumer attitudes toward risk and value were able to bridge the gap between consumer decision-making and mental accounting literature which better explains the psychology of choice (Thaler, 1999).

Investigating brand personality preferences for persons supported can help marketing practitioners and academic scholars better understand how they drive purchase intent.

# **People with Developmental Disabilities:**

## **An Emerging Market**

### ***Americans With Disabilities: Facts***

The U.S. Census Bureau's 2002 Survey of Income and Program Participation (SIPP) states that there are 51.2 million people that have a disability in the United States. This report depicts this population to equal 18.1 percent (U.S. Census Bureau, 2002).

Millions of persons supported travel, shop, and dine out on a regular basis with family and friends. An Open Doors Organization (2003) study discovered that more than 75 percent of persons supported dined out at least once a week and spent an estimated \$35 billion that same year (NCI, n.d.; PNN Online, 2003).

Approximately 20.9 million families have at least one family member with a disability (U.S. Census Bureau, 2005).

The Census Bureau (2002) also reported that almost 42 percent of older adults (65+) have one or more disabilities. To put it in perspective, it is projected that by 2030 more than 69 million people age 65 and older will make up an estimated 20 percent of the total U.S. population (Administration on Aging, 2003) which further supports that the persons supported population should not be ignored.

A new report from the American Institute for Research (Yin et al., 2018), *A Hidden Market: Purchasing Power of People With Disabilities*, found that businesses who hire and involve individuals who have a disability in their product development and advertisements can help organizations leverage markets that are valued in the billions. Although technology and fashion industries have done a better job of marketing to, development products for, and advertising with persons supported, Yin states that working-age adults with disabilities are still an underserved market in the United States. This working-age population (16-65 years of age) accounts for 35 percent of the approximated 64 million people with at least one disability who live in the United States and earn income through employment with additional support and benefits. Persons supported might earn lower annual income in comparison to those without a disability, but this report found that they still have sizable purchasing power. Some of this team's key findings were: (1) total after-tax disposable income for working-age persons supported was estimated at \$490 billion, (2) disposable income varies by disability type and by state, although this information can yield tremendous benefits if businesses try to better understand how to tap into this underserved market, and (3) persons supported is not an isolated market, they are surrounded by professionals, family and friends who also understand the need for businesses to better recognize this market's potential and create products and services that are inclusive for all people in society.

### ***Purchasing Power of Americans With Disabilities***

Persons supported is a growing market that should not be ignored. Individuals with disabilities account for \$175 billion in discretionary purchasing power according to the

U.S. Department of Labor (1998). This is four times the purchasing power of tweens (8-14 years of age), a generational cohort sought out by businesses today (Farhi & Frey, 2006).

The New York Times (2004) reported that tourists with disabilities exceeded \$13.6 billion annually.

The Nielsen Consumer and Shopper Analytics team (2015) recently found that 5.5 percent of U.S. households include a person with intellectual disabilities which represents \$31 billion in buying power annually. If we were to include those additional households where an immediate family member doesn't reside with family, but is being cared for, this would include another 7.1 percent which equates to an additional \$35 billion of buying power. Combined, marketing practitioners are looking at a population that has \$66 billion in annual buying power collectively depicting a viable and essential U.S. consumer market.

### ***The Global Perspective of Persons Supported***

The World Health Organization (WHO) (2003) has estimated that there are 600 million individuals with disabilities all over the world. Global purchase power for this market includes:

- (1) UK (2005) there were 10 million adults with disabilities and annual purchasing power of £80 billion;
- (2) Canada (2001) had a combined annual discretionary income of working-aged Canadians with disabilities of \$25 billion CAN.

### ***What is a Developmental Disability?***

Individuals who have an intellectual or developmental disability usually have the following diagnoses: (1) attention-deficit/hyperactivity disorder (ADHD) (2) autism spectrum disorder, (2) Down syndrome, (3) tourette syndrome, (4) cerebral palsy, (5) spina bifida, (6) fragile x syndrome, including but not limited to other fetal alcohol and drug-related syndromes (Logsdon, 2018).

Generally, developmental disabilities are complex disorders that contribute to physical impairments, medical conditions, intellectual disabilities, and speech disorders. They are usually identified when children are between three and six years of age (Logsdon, 2018).

Children with developmental disabilities become adults with developmental disabilities. Their interactions with their loved ones, the community, and their employment will depend on the type and/or severity of the disability. Some adults may function well socially while needing physical support (e.g. spina bifida) while other adults may also function well socially, but are in need of support in the workplace (e.g. Down syndrome). Children who receive early intervention and quality therapy are said to build qualifying skills and self-confidence, which benefits them when they become adults (Logsdon, 2018).

### ***Developmental Disabilities and Personality***

Everyone, whether one has a developmental disability or not has a personality. There are some with developmental disabilities who may feel disabled while others are determined to live independently and have an enviable life. These differences have distinct outcomes, and if this should be the case, then it is conceivable that marketing practitioners

and academic scholars would want to better understand the underpinning of this deserving market's innovative product design and brand personality preferences to better leverage a promising and untapped market (Logsdon, 2018).

### ***The Overlap of Innovative Product Design and Brand Personality on Purchase Intent by People with Developmental Disabilities***

Exploring whether certain innovative product design preferences outweigh brand personality preferences (or vice versa) when it comes to consumer purchase intent for persons supported could yield valuable results.

It is also plausible that both types of preferences strike a balance in support of consumer purchase intent for this equitable population.

This exploratory study is laying the foundation, which will provide greater insight into what is important and meaningful to persons supported when making their own purchasing decisions and for those who may be involved with making purchasing decisions on their behalf (e.g. professional staff).

Individuals with developmental disabilities should be regarded as a valued market. Their efforts should be supported and their contributions should be recognized from a marketing perspective as well as from a societal perspective.



### ***The Theoretical Model: The Gap***

This research is an attempt to bridge the gap between persons supported and today's marketing efforts. By examining the innovative product design and brand personality preferences of those that make up the people with developmental disabilities market: (1) professional staff and (2) persons supported, we may find there to be a better representation of what is meaningful to this target population through inclusive product design and how they connect with brands.

Further investigation of enhanced government funding and persons supported coping abilities (moderator) on the innovative product design and brand personality relationship on purchase intent could also yield appealing results.

This study will further theoretical and practical research by investigating innovative product design and brand personality preferences of persons supported as well as lead to best practices of industry practitioners who can better streamline their marketing efforts intended for this market.

Adults and Children with Learning and Developmental Disabilities (ACLD) is a Long Island not-for-profit agency that serves the needs of over 3,000 individuals with developmental disabilities (a.k.a. persons supported). Developing a relationship with ACLD and working prudently with senior management and its Board has enabled this research to come to fruition and should positively impact the lives of those they serve.

## Chapter 3

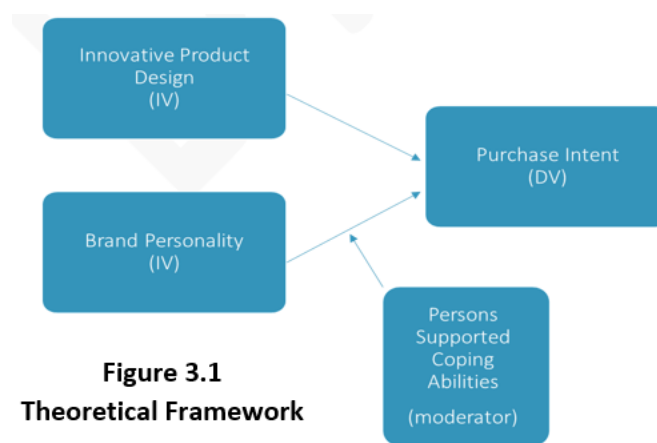
### Research Methodology

The goal of this study is to explore the influence of innovative product design and brand personality preferences on consumer purchase intent within the ACLD community: (a) persons supported and (2) professional staff. There is need for this exploratory study to bridge the gap between this underserved consumer base and today's marketing efforts.

#### Theoretical Model

The objective of this study is to report on the innovative product design and brand personality preferences of professional staff and persons supported within the ACLD community to better understand the purchase intent of persons with developmental disabilities. Additionally, persons supported coping abilities can moderate the brand personality and purchase intent relationship.

The model is depicted herein, statistical framework (Appendix G):



**Figure 3.1**  
**Theoretical Framework**

## **Organization In Focus**

ACLD's mission includes providing opportunities for both children and adults with autism, learning and developmental disabilities to lead person-centered, fulfilled, and productive lives while promoting relationships within the community. To carry out its mission, ACLD employs more than 1,100 people and operates 77 different program sites including group homes and apartment programs across Nassau and Suffolk counties. Service programs include Children's Early Intervention and Preschool Programs; Respite; Family Support Services; Medicaid Service Coordination; Occupational, Speech, and Physical Therapy; and Social Work Services (Anonymous, 2016).

Collaboration with senior administration and approval of the ACLD Board was pursued in order to further academic research amid this untapped population. The research will include electronic surveys including professional staff and persons supported (ages 21 and above) to operationalize said study.

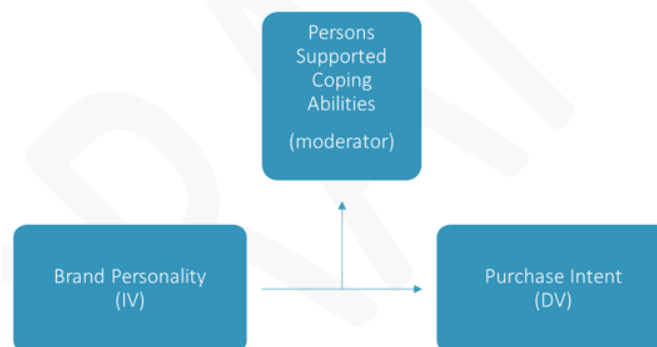
## **Persons Supported**

Persons supported have their own views as to what brands are self-expressive, and they may be partial to superior brands. Having a better understanding of their perceptions of brand personality and what product attributes are meaningful to them could be noteworthy. ACLD Board Members of the Quality Services Committee commented that the adults who participate in the ACLD day programs and/or receive residential services would benefit from participating in this study. The committee chairperson stated that the research study presented appears to be consumer centric and an excellent inclusive

opportunity for persons supported. Total surveys completed equals n=144 for this study with a total of n=71 for persons supported who avail themselves in ACLD's Day or Residential program.

Additionally, understanding resilience of persons supported may moderate the relationship between brand personality and purchase intent. This embryotic study will utilize a resilience scale (Liebenberg, L., Ungar, M., & LeBlanc, J.C., 2013) to measure and report results of persons supported coping abilities and how it may be linked to purchase intent (Appendix E).

**Figure 3.2**  
**Moderating Framework**



## **Professional Staff**

Those that dedicate their careers to serve persons supported realize the strife as well as progress that this particular population encounters on a daily basis. Professional staff interact on a regular basis with persons supported at ACLD; various day programs and residential homes. Staff typically act as confidants to those they serve and have a keen understanding of what brands they frequent as well as the types of products they wish to purchase. Since professional staff work day-to-day with persons supported, their responses

could yield promising results. A total of n=73 for professional staff who aid persons supported in either the Day Habilitation or Residential program are included in this study.

## Measures

Innovative Product Design scale (Moon et al, 2015) is a scale that measures consumers' unique perceptions of product innovativeness. The three dimensions utilized in this scale are product aesthetics, features, and ergonomics. With a sample of n=144 for both persons supported and professional staff combined, the mean and standard deviations for these three attributes were as follows:

**Table 3.1**

<b>Dimension</b>	<b>Mean</b>	<b>Standard Deviation</b>
Aesthetics	3.7274	.73553
Features	3.6424	.71305
Ergonomics	3.9340	.58461
Overall IPD Benefits	3.7679	.58687

Brand Personality scale (Aaker, 1997) is a scale that intellectualizes human personality as it relates to consumer preferences. The five dimensions utilized in this scale are sincerity, excitement, competence, sophistication, and ruggedness. With a sample of

n=144 for both persons supported and professional staff combined, the mean and standard deviations across all brands were as follows:

**Table 3.2**

<b>Dimension</b>	<b>Mean</b>	<b>Standard Deviation</b>
Sincere	3.4737	.65391
Excitement	3.3102	.65116
Competent	3.7083	.60409
Sophisticated	2.9549	.80598
Ruggedness	2.9236	.71404
BP Benefits Overall	3.2741	.53364

Resilience scale (Liebenberg et al, 2013) is a scale that assisted with understanding the feelings that persons supported experience on a daily basis and how these feelings may strengthen or weaken the brand personality and purchase intent relationship for persons supported. With a sample of n=66 with a minimum of 64 and maximum of 72 for persons supported, the mean and standard deviation for persons supported coping skills were as follows:

**Table 3.3**

<b>Dimension</b>	<b>Mean</b>	<b>Standard Deviation</b>
Coping Skills	70.7121	1.96715

The coping skills dimension was centered and regressions were ran on all five of the brand personality dimensions to accurately predict coping skills interaction.

The Juster scale (Juster, 1964) measures the prediction of purchase intent with its eleven-point purchase probability scale and was used to depict the professional staff and persons supported future purchasing plans. With a sample of n=144 for both persons supported and professional staff combined, the mean and standard deviations for purchase intent on three levels were:

**Table 3.4**

<b>Dimensions</b>	<b>Mean</b>	<b>Standard Deviation</b>
PI – Luxury/Hedonic	4.6649	2.81404
PI – Basics/Function	4.8935	2.25967
PI - Overall	4.8168	2.32663

## Descriptive Statistics

There were two groups included in this study, professional staff and persons supported (n=144); professional staff (n=73) equaling 50.7% and persons supported (n=71) equaling 49.3% of the surveyed population.

**Table 3.5**

Descriptive Statistics for Quantitative Sample (n=144)

<b>Persons Supported</b>	<b>Age</b>	<b>n</b>	<b>%</b>
	21 – 39	11	15.5%
	40 – 59	47	66.2%
	60 – 69	13	18.3%

The gender for persons supported comprised of 28 males (40%) and 42 females (60%) and the types of services they predominately receive are both Day Habilitation at 37.5% and Residential Housing at 36.2% equaling 73.7% of the total persons supported sample population. There was marginal services that ranged between Supported Employment and Community Habilitation. Participants surveyed didn't receive Respite services. Persons supported shop between 1 – 5 times per month (36.6%) and 6 – 10 times per month (46.5%). Those that shopped between 11 – 20 times per month were minimal.



**Table 3.6**

<b>Professional Staff</b>	<b>Age</b>	<b>n</b>	<b>%</b>
	21 – 29	9	12.3%
	30 – 59	57	78.1%
	60 – 69	7	9.6%

The gender for professional staff comprised of 17 males (23.3%) and 56 females (76.7%) and those that assist persons supported with their purchase decisions are 80.8% as opposed to those that do not assist persons supported with their purchasing decisions equaling 19.2%. The frequency in which professional staff assists persons supported when purchasing is predominately between 1- 5 times per month (79.7%). Some assist with purchases between 6 – 10 times per month (15.3%). Professional staff that assists with purchasing between 11 – 20 times per month were minimal.

### **Normality Analysis**

Several indicators of multivariate normality were checked including examining the Skewness and Kurtosis, Histograms, related Normal P-P Plots and Scatterplots.

The majority of the tests of normality suggested that the data are normally distributed. However, the parameters used violated the normal distribution marginally with no outliers for the innovative product design aesthetics dimension equaling 1.333.

## Reliability Analysis

Reliability for this study was tested using Cronbach's Alpha in order to measure internal consistency of the scales. Table 3.1 depicts the Cronbach's Alpha values of all variables to be greater than 0.70, concluding that all variables are reliable and have high internal consistency. No variables were deleted as the reliability for each factor was high.

**Table 3.7**

### Reliability Analysis

<i>Variables</i>	<i>Items</i>	<i>Cronbach's <math>\alpha</math></i>
<b><i>Innovative Product Design – Aesthetics</i></b> <i>The product design is very stylish</i> <i>The aesthetic design of the product is advanced</i> <i>The aesthetics of the product are exceptional</i> <i>The appearance of the product is exceptional</i>	4	0.868
<b><i>Innovative Product Design – Features</i></b> <i>The product is designed to perform exceptional functions</i> <i>The design of the product provides cutting-edge functionality</i> <i>The product is uniquely designed to provide exceptional performance</i> <i>The product is designed to go beyond consumers' expectations in terms of functionality</i>	4	0.897
<b><i>Innovative Product Design – Ergonomics</i></b> <i>The product design is comfortable for anyone to use</i> <i>The product design is intuitive for consumers to use</i> <i>The product is designed to be user-friendly</i> <i>The product is designed to accommodate user abilities</i>	4	0.852
<b><i>Innovative Product Design – Benefits</i></b> <i>IPD aesthetics, features, ergonomics combined</i>	12	0.923
<b><i>Brand Personality – Sincerity</i></b> <i>Human characteristics associated with particular brands: down-to-earth, honest, wholesome, cheerful for all four brands*</i>	16	0.896
<b><i>Brand Personality – Excitement</i></b> <i>Human characteristics associate with particular brands:daring, spirited, imaginative, up-to-date for all four brands*</i>	16	0.886
<b><i>Brand Personality – Competent</i></b> <i>Human characteristics associate with particular brands:reliable, intelligent, successful for all four brands*</i>	12	0.848
<b><i>Brand Personality – Sophisticated</i></b> <i>Human characteristics associate with particular brands:upper class and charming for all four brands*</i>	8	0.846

<b>Brand Personality – Ruggedness</b> <i>Human characteristics associate with particular brands: outdoorsy and tough for all four brands*</i>	8	0.789
<b>Brand Personality – Benefits</b> <i>BP dimensions combined: sincerity, excitement, competent, sophisticated, and ruggedness for all four brands*</i>	60	0.909
<b>Purchase Intent – Overall</b> <i>How likely are you to purchase: clothing, personal care items, food, furniture, electronics, entertainment, hobbies, gifts for others, Colgate, Levi's, Nike, and Fridays</i>	12	0.831
<b>Purchase Intent – Luxury/Hedonic</b> <i>How likely are you to purchase: electronics, entertainment, hobbies, and gifts for others</i>	4	0.862
<b>Purchase Intent – Basics/Function</b> <i>How likely are you to purchase: clothing, personal care items, food, furniture, Colgate, Levi's, Nike, and Fridays</i>	8	0.845

\* Four Brands: Colgate, Levi's, Nike, and Fridays

## Procedure

This study was reviewed and approved by the Molloy College IRB Committee. Electronic surveys were distributed among ACLD professional staff and persons supported through Qualtrics. Participants were consented and informed that participation was voluntary and they would have access to results as requested (Appendix F).

The data was compiled and regressions were run in SPSS to report results for H<sub>1</sub> and H<sub>2</sub> respectively, the relationships of innovative product design on purchase intent and brand personality on purchase intent for professional staff and persons supported. An independent sample t-test was run for H<sub>3</sub> which showed significant results for Levene's F Test for all three purchase intent categories (e.g. overall, basics/function, and luxury/hedonic) signaling that equal variance was not assumed for professional staff and persons supported. This led to separate subsequent regressions for professional staff and

persons supported where significance was found for a number of brand personality dimensions for both segments, while innovative product design significance for solely persons supported (Appendix H). The potential moderator variable (e.g. persons supported coping abilities) was transformed and computed into a coping skills composite that was then centered and then regressed in order to find moderation of brand personality on purchase intent for persons supported.

## Chapter 4

# Analysis and Results

### Discussion of Analysis

In total, there are nine groups of regressions (Appendix H). Each regression group has ten individual regressions. The nine groups are: purchase intent overall, purchase intent basics/function, and purchase intent luxury/hedonic, all data responses (e.g. professional staff and persons supported), professional staff, and persons supported; essentially 90 regressions were completed, the purchase intent data was measured in three categories (e.g. purchase intent overall, basics/function, and luxury/hedonic), and the significant findings are highlighted below:

**Table 4.1a**

Regression Analysis – All Data Responses (n=144)

<i>Purchase Intent Overall</i>	<i>R<sup>2</sup></i>	<i>F score</i>	<i>P Value</i>	<i>Beta</i>	<i>Result</i>
<i>BP – Sincerity</i>	.037	5.431	.021	.683	<i>Supported</i>
<i>BP – Ruggedness</i>	.048	7.141	.008	-.713	<i>Supported</i>

\*  $p < 0.05$

**Table 4.1b**

<i>Purchase Intent – Basics/Function</i>	<i>R<sup>2</sup></i>	<i>F score</i>	<i>P Value</i>	<i>Beta</i>	<i>Result</i>
<i>BP – Ruggedness</i>	.035	5.091	.026	-.589	<i>Supported</i>

\*  $p < 0.05$

**Table 4.1c**

<i>Purchase Intent – Luxury/Hedonic</i>	<i>R<sup>2</sup></i>	<i>F score</i>	<i>P Value</i>	<i>Beta</i>	<i>Result</i>
<i>BP – Sincerity</i>	.054	8.083	.005	.999	<i>Supported</i>
<i>BP – Ruggedness</i>	.060	9.044	.003	-.964	<i>Supported</i>

\*  $p < 0.05$

**Table 4.2a**

Regression Analysis – Professional Staff (n=73)

<i>Purchase Intent – Basics/Function</i>	<i>R<sup>2</sup></i>	<i>F score</i>	<i>P Value</i>	<i>Beta</i>	<i>Result</i>
<i>BP – Competence</i>	.062	4.700	.034	-.606	<i>Supported</i>
<i>BP – Sophistication</i>	.055	4.130	.046	-.435	<i>Supported</i>
<i>BP – Benefits</i>	.061	4.607	.035	-.650	<i>Supported</i>

\*  $p < 0.05$

**Table 4.3a**

Regression Analysis – Persons Supported (n=71)

<i>Purchase Intent - Overall</i>	<i>R<sup>2</sup></i>	<i>F score</i>	<i>P Value</i>	<i>Beta</i>	<i>Result</i>
<i>BP – Ruggedness</i>	.068	5.070	.028	-.926	<i>Supported</i>
<i>IPD – Aesthetics</i>	.106	8.221	.005	1.212	<i>Supported</i>
<i>IPD - Features</i>	.121	9.486	.003	1.333	<i>Supported</i>
<i>IPD - Benefits</i>	.117	9.147	.003	1.613	<i>Supported</i>

\*  $p < 0.05$

**Table 4.3b**

<i>Purchase Intent – Basics/Function</i>	<i>R<sup>2</sup></i>	<i>F score</i>	<i>P Value</i>	<i>Beta</i>	<i>Result</i>
<i>BP – Excitement</i>	.064	4.755	.033	1.074	<i>Supported</i>
<i>IPD – Aesthetics</i>	.124	9.733	.003	1.261	<i>Supported</i>
<i>IPD – Features</i>	.129	10.261	.002	1.333	<i>Supported</i>
<i>IPD - Ergonomics</i>	.055	4.045	.048	1.128	<i>Supported</i>
<i>IPD – Benefits</i>	.137	10.992	.001	1.688	<i>Supported</i>

\*  $p < 0.05$

**Table 4.3c**

<i>Purchase Intent – Luxury/Hedonic</i>	<i>R<sup>2</sup></i>	<i>F score</i>	<i>P Value</i>	<i>Beta</i>	<i>Result</i>
<i>BP – Ruggedness</i>	.145	11.718	.001	-1.621	<i>Supported</i>
<i>IPD – Aesthetics</i>	.062	4.568	.036	1.112	<i>Supported</i>
<i>IPD – Features</i>	.084	6.304	.014	1.333	<i>Supported</i>
<i>IPD - Benefits</i>	.067	4.921	.030	1.461	<i>Supported</i>

\*  $p < 0.05$

H<sub>1</sub> posited that there is a relationship between Innovative Product Design preferences and Purchase Intent among professional staff and persons supported. Tables 4.1a, 4.1b, and 4.1c demonstrate that results were insignificant when running all data responses together (n=144). The same holds true in Table 4.2a for professional staff (n=73). When running

the regressions for persons supported (n=71) in Tables 4.3a, 4.3b, and 4.3c, the results were significant for innovative product design aesthetics, features, and benefits for purchase intent overall as well as innovative product design aesthetics, features, ergonomics, and benefits for the purchase intent basics/function category and innovative product design aesthetics, features, and benefits for the purchase intent luxury/hedonic category. Thus H<sub>1</sub> is partially supported where there is a relationship between Innovative Product Design preferences and Purchase Intent among persons supported, but not professional staff.

H<sub>2</sub> posited that there is a relationship between Brand Personality preferences and Purchase Intent among professional staff and persons supported. Results were significant for all data responses together (n=144) in Table 4.1a for brand personality sincerity and ruggedness for purchase intent overall. Results were also significant for brand personality ruggedness for the purchase intent basics/function category in Table 4.1b as well as the brand personality sincerity and ruggedness for the purchase intent luxury/hedonic category in Table 4.1c. When regressing professional staff separately in Table 4.2a, brand personality was also significant for brand personality competence, sophistication, and benefits for professional staff. Additionally, when regressing persons supported separately in Table 4.3a, brand personality was significant for brand personality ruggedness for purchase intent overall and significant for brand personality excitement for the purchase intent basics/function category in Table 4.3b as well as brand personality ruggedness for the purchase intent luxury/hedonic category in Table 4.3c. This demonstrates that H<sub>2</sub> is supported.

Next, H<sub>3</sub> proposed that professional staff and persons supported differ with regard to Purchase Intent. When performing independent sample t-tests on all purchase intent



categories respectively (e.g. overall, basics/function, and luxury/hedonics), professional staff ( $M=3.9559$ ,  $SD=1.64930$ ) and persons supported ( $M=5.7019$ ,  $SD=2.58708$ ),  $[-4.814 (118.306) = , p = .000]$ , professional staff ( $M=4.0810$ ,  $SD=1.64607$ ) and persons supported ( $M=5.7289$ ,  $SD=2.49955$ ),  $[-4.659 (120.639) = , p = .000]$ , and professional staff ( $M=3.7089$ ,  $SD=2.10984$ ) and persons supported ( $M=5.6479$ ,  $SD=3.10891$ ),  $[-4.367 (122801) = , p = .000]$  significant results for all three Levene F Tests implied that  $H_3$  was supported. Subsequent regressions listed in Tables 4.2a and 4.3a, b, and c indicate that  $H_3$  is supported due to the significance of varying purchase intent categories for both professional staff and persons supported.

$H_4$  posited that persons supported coping abilities moderates the relationship between Brand Personality and Purchase Intent. Results were insignificant with the exception of the interaction of the centered brand personality excitement dimension for persons supported,  $Y = B_0 + B_1X_1 + B_2X_2 + B_3X_1 * X_2$ . When persons coping skills are low, the relationship between the brand personality excitement dimension and purchase intent increases,  $[\Delta R^2 = .06, \Delta F (1,62) = 4.46, p = .04]$ , hence  $H_4$  is supported.

**Table 4.4**

<b>Hypothesis 1</b>	There is a relationship between Innovative Product Design and Purchase Intent among professional staff and persons supported.	Partially Supported
<b>Hypothesis 2</b>	There is a relationship between Brand Personality and Purchase Intent among professional staff and persons supported.	Supported
<b>Hypothesis 3</b>	Professional Staff and Persons Supported differ with regard to Purchase Intent.	Supported
<b>Hypothesis 4</b>	Persons Supported coping abilities moderates the relationship between Brand Personality and Purchase Intent.	Supported

## **Chapter 5**

# **Conclusion of Study**

### **Discussion**

This study examined the relationship of innovative product design and brand personality preferences on purchase intent within the ACLD community totaling n=144 including professional staff and persons supported.

It was interesting to find that there are varying innovative product design and brand personality preferences for both professional staff and persons supported. When it comes to purchasing differing product categories and/or specific brands overall (e.g. clothing, personal care items, food, electronics, furniture, entertainment, hobbies, gifts for others, Colgate, Levi's, Nike, or Fridays), brand personality preferences were of more importance to both population segments surveyed. When the purchase intent categories were further defined as purchase intent basics/function (e.g. clothing, personal care items, food, furniture, Colgate, Levi's, Nike, and Fridays), brand personality preferences were still of importance to both professional staff and persons supported. The same holds true regarding brand personality preferences for the purchase intent luxury/hedonic category (e.g. electronics, entertainment, gifts for others, and hobbies). For innovative product design preferences, not so much.

### **Innovative Product Design**

Innovative product design was a significant predictor of purchasing intent only for persons supported. The attributes that were significant predictors for persons supported

were aesthetics, features, and overall innovative product design benefits for purchase intent overall. For the purchase intent basics/function category, all innovative product design attributes were statistically significant including aesthetics, features, ergonomics, and overall innovative product design benefits. The purchase intent luxury/hedonic category predicted aesthetics, features, and overall innovative product design benefits as well.

In exploring the relationship of innovative product design on purchase intent across all three purchase intent categories for persons supported, important similarities, but some interesting differences emerged. While it seems consistent that persons supported value product aesthetics, features, and overall innovative product design benefits as whole, it is interesting to see that all of the innovative product design attributes including ergonomics is important to persons supported when reporting on the purchase intent basics/function category. Since this is an embryotic study which is intended to lay the foundation toward future studies for persons supported, no empirical studies may be referenced directly for this population, but industry researchers suggest the need for future inclusive empirical research to better understand the changing needs of the persons supported market as it is an equitable market not prudently being tapped into (“Quantifying The Market,” 2015; Yin et al., 2018).

In an interview with the compliance officer at ACLD, the majority of persons supported that participate in the Day Habilitation or Residential Housing Programs are majority subsidized by the government (e.g. federal and state funding). This representative also stated that basic equipment such your typical wheelchair is normally covered under insurance, but items such as electronic wheelchairs are not. Supporting research suggests that government funding is increasing over recent decades while improving the lives of

individuals with disabilities, but the government acknowledges that there is room for growth when it comes to today's electronics and other hedonic products (Baker & Bellordre, 2004; Kaye, 2000; Miller & Washington, 2015) for this market segment. When running the purchase intent basics/function category, it is interesting that when person supported are purchasing the basics (e.g. clothing, personal care items, food, etc.), all innovative product design attributes are important to them. When analyzing the purchase intent luxury/hedonic (e.g. electronics, hobbies, entertainment, etc.) category as well as the overall purchase intent category (e.g. all-inclusive basic and luxury categories combined), ergonomics is not as of the same value as is features and aesthetics. So, it seems that if persons supported had their choice of what to purchase ranging from necessities to luxury items, they would look to purchase products that have defining features and aesthetics rather than what is ergonomically designed to fit their needs. Although when purchasing what is needed, ergonomics is just as important for daily functionality and products being user-friendly. A possible reason is that government funding normally does not cover luxury/hedonic items such as electronic wheelchairs and in relation to this study, electronics is part of the luxury/hedonic purchase intent category. Seemingly, this may imply that persons supported are more focused on what they need (e.g. basics/function category), rather than what they desire, hence the inclusion of ergonomics as an item of importance.

Another point of reference would be that innovative product design as a whole is important to this target market. It makes sense that persons supported would like products that are aesthetically pleasing and value products that have bells and whistles which provide varying consumer benefits. Contrary to prior research, this population is

considered to be an undervalued market (Burnett & Paul, 1996; U.S. Census Bureau, 2005), rather than being looked at as a viable market segment among marketing practitioners. Because of these findings pertaining to innovative product design for persons supported, marketing practitioners can better understand the needs of this target market and this market segment can benefit from future scholarly research.

### **Brand Personality**

Brand personality was a significant predictor of purchasing intent for both professional staff and person supported. The dimensions that were significant for professional staff and persons supported combined (n=144) were sincerity and ruggedness for purchase intent overall. When running the regression with the purchase intent basics/function category for all data responses, the same held true for the ruggedness dimension. When running the regression for all data responses for the purchase intent luxury/hedonic category, both the sincerity and ruggedness dimensions were significant.

When the data was run separately for professional staff (n=73), the dimensions that were significant predictors were competence, sophistication, and overall brand personality benefits combined for the purchase intent basics/function category. For persons supported (n=71), the significant predictor was ruggedness for the overall purchase intent category.

Investigating the relationship of brand personality on purchase intent across all three purchase intent categories for both professional staff and persons supported yielded important similarities between the two segments, as brand personality is of value for both segments overall for sincerity and ruggedness, but there were some interesting differences that emerged. Professional staff values competence, sophistication, and for the most part

brand personality benefits overall when connecting with brands. Although, persons supported values ruggedness when connecting with brands. Whether or not an individual has a developmental disability or not, he/she has a personality. With these findings, it is interesting to note that professional staff and persons supported differ with regard to how they associate with brands.

Additionally, when it comes to purchasing the basics (e.g. purchase intent basics/function category) for persons supported, they unlike professional staff, value exciting brands. These preferences coupled with other innovative product design features and benefits provide distinctive results from the traditional population.

Again, knowing the difference between these two segments' brand preferences can assist marketing practitioners and their employees with how to better position their brands for both the traditional and persons supported market segments while catering to changing consumer needs. The American Institute for Research found that hiring individuals who have a disability and having them work with product development and/or advertising has leveraged markets that are valued in billions (Yin et al., 2018), with technology and fashion industries leading the way due to having a better insight on inclusive design and brand preferences (Klein, 2018; Sharkey, 2019; Young, 2018).

### **Persons Supported Coping Skills**

Finding that persons supported coping skills does in fact moderate the brand personality and purchase intent relationship is also noteworthy due to the interaction present with the brand personality excitement dimension. Having a better understanding of how persons supported cope on a daily basis has yielded interesting results. Stated earlier,

findings show that persons supported depict brand preferences for perceived exciting brands. Findings show that when person supported have low coping abilities, the brand personality and purchase relationship is significant. Generally, a developmental disability can contribute to physical impairments and other medical conditions that can adversely impact daily living (Logsdon, 2018). Results depict that when this happens, and coping skills are low, persons supported tend to defer to these brand personality preferences when contemplating their future purchases.

## **Limitations of the Study**

Consideration should also be given to families and caregivers of those who have a family member(s) with a developmental disability living within or outside of the same household. Sometimes this population is overlooked and can impact consumer behavior of persons supported (Mason & Pavia, 2006).

Themes of family consumption emerge when speaking with family members that are living with persons supported. Families that adapt to their living situation tend to place ‘normalcy’ beyond the person assisted to influence the consumption of the entire family (Mason & Pavia, 2006).

In general, alterations in family consumption are present when making adjustments to marketplace challenges, family roles and norms, and in rituals and family identity. Their adaptive ways impact the way they engage in the marketplace and contribute to the ongoing struggles to navigate the medical, environmental, and relative needs of all members living within or outside of the same household.

Family and/or caregivers were asked to participate in this study, but their volunteerism was limited. Reasons could be because some didn't live locally to ACLD and surveys were emailed to family and/or caregivers of those being serviced by ACLD. Conversely, both professional staff and persons supported were recruited in person. Some family/caregivers vocalized the complexity of the survey and survey refinement may be pursued with future efforts to include this segment in related studies. Having a better understanding of family/caregivers' coping abilities as they care for individuals that either live in their household or that participate in the Day Habilitation or Residential Housing program at ACLD might also yield pertinent results.

## **Government Funding**

Some purchase situations may be subject to governmental funding. Legislation points to POP (point-of-purchase) sales that need to be disabilities friendly because the market is a lucrative one. Regulations should not dictate that marketing separately to persons supported is the preferred route toward sustainable growth. There are a number of considerations businesses should take into account when marketing to persons supported (Miller & Washington, 2015).

Key policy issues and access to governmental funding can create opportunities and barriers when it comes to purchase consumption of today's innovative products (Silverstein, 1999; Lane, 2002; Bush, 2002). Research from Baker and Bellordre (2004) report that further guidance is needed to better regulate and monitor federal/state regulations and aid policies as well as develop policies/governmental aid toward increased access to various technologies for persons supported.



While there are many persons supported that state their lives have been improved within the past decade due to governmental aid and development of federal and state policies, this equitable population still is in need of support and assistance (Kaye, 2000).

In the absence of a valid government funding scale in this area of research, it may be feasible for future research to develop a scale that could be integrated toward this type of inclusive research.

## **Future Research**

Future studies that investigate the innovative product design and brand personality preferences of individuals who have acquired a developmental or physical disability during their lifetime (e.g. accident or acquired illness) may yield interesting results. Another area of research might be tourism and individuals with developmental and/or physical disabilities. Accessibility may be of importance to individuals who are vacating and having destination vacation locations might positively impact the hospitality industry upon knowing the value of accessible hotels and/or other amenities when vacationing with family or should a person supported choose to travel independently.

I have reached out to another agency on Long Island that services children and adults with developmental disabilities, AHRC Suffolk. They have verbally expressed interest in participating in future inclusive studies within the AHRC Suffolk community. Future empirical studies with a different dataset may compliment the findings of this study.

At a shared non-profit event, I met briefly with the CEO of the Viscardi Center. This agency also services its local community to educate, employ, and empower children

and adults with disabilities. He too expressed interest in an inclusive study along with other non-profits located in Nassau County where their missions are focused on inclusivity for individuals with developmental disabilities, Mary Quinn's Mark Foundation and Spectrum Designs, who provides employment and professional growth opportunities for individuals with developmental disabilities.

## **Contributions to Marketing Literature**

This embryotic study is laying the foundation toward future interdisciplinary studies including persons supported. This research advocates for persons supported as a viable market segment among today's marketing practitioners and is advancing theoretical research by reporting empirical results pertaining to innovative product design and brand personality preferences to better understand consumer purchase intent within the ACLD community. The results may be generalized due to the chosen measurement tools utilized among a sufficient randomized sample population (Cohen, 1992).

This study is also an early attempt to bridge the gap between today's marketing efforts and persons supported. Marketing practitioners may begin to better understand the values of this target market while being able to customize new and existing product offerings to improve their brand connections and product categories among this equitable community. It can also lead to future interdisciplinary research toward individuals with physical disabilities and/or acquired disabilities rather than those present at birth that may surface between three to six years of age or are a result of early childhood trauma.

## Appendix A

### Purchase Intent Scale (Juster, 1964)

- ☐ 10 Certain, practically certain (99 in 100)
- ☐ 9 Almost sure (9 in 10)
- ☐ 8 Very probable (8 in 10)
- ☐ 7 Probable (7 in 10)
- ☐ 6 Good possibility (6 in 10)
- ☐ 5 Fairly good possibility (5 in 10)
- ☐ 4 Fair possibility (4 in 10)
- ☐ 3 Some possibility (3 in 10)
- ☐ 2 Slight possibility (2 in 10)
- ☐ 1 Very slight possibility (1 in 10)
- ☐ 0 No chance, almost no chance (1 in 100)

**Juster Scale Description.** The eleven-point scale is scored on a Likert-type scale ranging from *no chance, almost no chance* (0) to *certain, practically certain* (10) for each item rated. Item scores are summed and then divided by the number of items to form scores that can theoretically range from 0 to 10.

## Appendix B

### Innovative Product Design (IPD) Scale (Moon, Park, & Kim, 2015)

Aesthetic Attribute
1. The product design is very stylish.
2. The aesthetic design of the product is advanced.
3. The aesthetics of the product are exceptional.
4. The appearance of the product is exceptional.

Feature Attribute
1. The product is designed to perform exceptional functions.
2. The design of the product provides cutting-edge functionality.
3. The product is uniquely designed to provide exceptional performance.
4. The product is designed to go beyond consumers' expectations in terms of functionality.

Ergonomic Attribute
1. The product design is comfortable for anyone to use.
2. The product design is intuitive for consumers to use.
3. The product is designed to be user-friendly.
4. The product is designed to accommodate user abilities.

### Sample Five-Point Likert Scale for IPD Scale

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

**IPD Scale Description.** The three factors are scored on five-point Likert-type scales ranging from *strongly disagree* (1) to *strongly agree* (5) for each attribute rated. Item scores are summed within each attribute, and then divided by the number of items within the attribute to form scores for each factor that can theoretically range from 1 to 5.

## Appendix C

### Brand Personality Scale (Aaker, 1997)

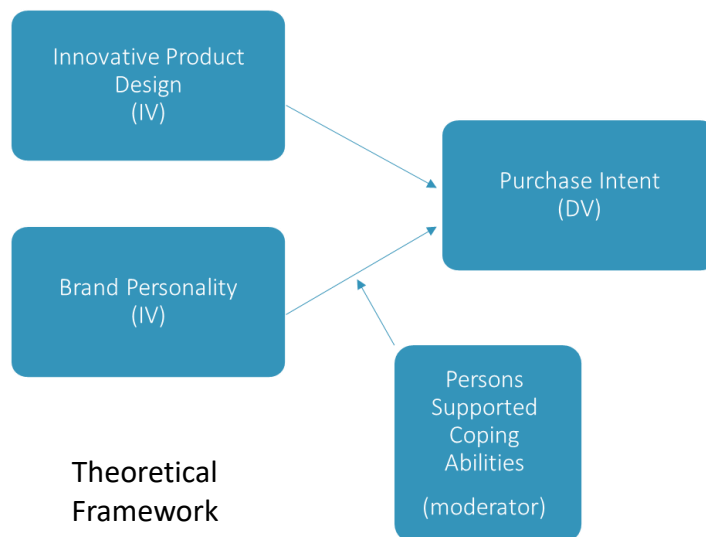
Trait (item)	Facet	Dimension
down-to-earth	Down-to-earth	Sincerity
family-oriented		
small-town		
honest	Honest	
sincere		
real		
Wholesome	Wholesome	
Original		
Cheerful	Cheerful	
Sentimental		
Friendly		
Daring	Daring	Excitement
Trendy		
Exciting		
Spirited	Spirited	
Cool		
Young		
Imaginative	Imaginative	
Unique		
Up-to-date	Up-to-date	
Independent		
Contemporary		
Reliable	Reliable	Competence
Hard-working		
Secure		
Intelligent	Intelligent	
Technical		
Corporate		
Successful	Successful	
Leader		
Confident		
Upper-class	Upper-class	Sophistication
Glamorous		
Good looking		
Charming	Charming	
Feminine		
Smooth		
Outdoorsy	Outdoorsy	Ruggedness
Masculine		
Western		
Tough	Tough	
Rugged		

### Five-Point Likert Scale for Brand Personality Scale

Not At All Descriptive	Somewhat Descriptive	Descriptive	Very Descriptive	Extremely Descriptive
1	2	3	4	5








**Brand Personality Scale Description.** The five dimensions and 15 facets that encompass 42 items are scored on five-point Likert-type scales ranging from *not at all descriptive* (1) to *extremely descriptive* (5) for each brand rated. Item scores are summed within each dimension, and then divided by the number of items within a dimension to form scores for each dimension that can theoretically range from 1 to 5.

### Appendix D



## Appendix E

### Resilience Scale (Liebenberg et al, 2013)

	No	Sometimes	Yes
1. Do you have people you want to be like?			
2. Is doing well in school important to you?			
3. Do you feel that your parent(s)/ caregiver(s) know a lot about you (for example, what makes you happy, what makes you scared)?			
4. Do you try to finish activities that you start?			
5. When things don't go your way, can you fix it without hurting yourself or other people (for example, without hitting others or saying nasty things)?			
6. Do you know where to go to get help?			
7. Do you feel you fit in with other children?			
8. Do you think your family cares about you when times are hard (for example, if you are sick or have done something wrong)?			
9. Do you think your friends care about you when times are hard (for example if you are sick or have done something wrong)?			
10. Are you treated fairly?			
11. Do you have chances to show others that you are growing up and can do things by yourself?			
12. Do you like the way your family celebrates things (like holidays or learning about your culture)?			

**Resilience Scale Description.** Sub-Scales and Question Clusters on the CYRM. There are three sub-scales: individual capacities/resources, relationships with primary caregivers and contextual factors that facilitate a sense of belonging (e.g. fit statistics). Certain questions in the survey point to certain sub-scales and the responses are summed up to the relevant questions identified in the clusters. The higher the score, the more these resilience components are present in the lives of the participants.

## Appendix F

### SAMPLE CONSENT FORM



**Business Division  
1000 Hempstead Avenue  
Rockville Centre, NY 11570  
(516) 323-3096**

### **The Influence of Brand Personality and Innovative Product Design on Purchase Intent - Valuing Persons with Special Needs**

**This study is being conducted by:** Dawn DiStefano, Associate Dean & Director of UG Business, Molloy College, (516) 323-3096 or ddistefano@molloy.edu.

#### **Key Information about this study:**

**This consent form is designed to inform you about the study you are being asked to participate in. Here you will find a brief summary about the study; however you can find more detailed information later on in the form.**

You are invited to participate in a survey that would help to better understand what motivates you to purchase products and favor particular brands. In this study, we refer to the characteristics that may affect the way customers make purchases as: brand personality and innovative design.

It is a short 15 minute survey to fill out and you can stop at any time.

You are being asked to participate in this study because you are either an affiliated family member, resident, or employee of ACLD.

#### **Purpose of Study:**

The study explores how people connect with brands and the importance of features and benefits of innovative product design and their influence on you as a consumer and your intent to purchase an item.

#### **Participant Request:**

You will be asked a series of online survey questions to better understand your brand personality and innovative product design preferences and their influence on types of products you intend to purchase.



**Time Involvement:**

Your participation in this research will take approximately 15-20 minutes.

**Risks and Benefits:**

There are no anticipated risks to you if you participate in this study. Participation will assist with academic/industry research. Your efforts will advance knowledge of an exploratory study focusing on the proposed research question: *Do brand personality preferences and/or innovative product design preferences influence consumer purchase intent?*

**Participation is Voluntary:**

Taking part in this research is voluntary. Those that request not to participate may opt-out of said study. Those that wish to participate in said study may opt-out at any time.

**Why am I being asked to take part in this study?**

Your participation will help to contribute toward academic/industry research that encourages inclusive marketing efforts toward individuals with developmental disabilities.

**What will I be asked to do?**

You will be asked to fill out a short survey that will take approximately 15 – 20 minutes.

The survey is divided in sections so that you have a chance to fully participate in the academic/industry research. *Please review the instructions carefully before answering the survey questions.*

**Where is the study going to take place, and how long will it take?**

The study will take place at ACLD for both professional staff and persons supported.

For family and/or caregivers, they will receive link to the survey via email from ACLD and can submit their responses directly online.

The survey will take approximately 15 – 20 minutes to complete.

**What are the risks and discomforts?**

There are no anticipated risks to you if you participate in this study.

**What are the expected benefits of this research?**

**Individual Benefits:** You will be assisting with advocating for a viable and yet underserved target market, individuals with developmental disabilities.

**Do I have to take part in this study?**

Your participation in this research is your choice. If you decide to participate in the study, you may change your mind and stop participating at any time without penalty or loss of benefits to which you are already entitled.

**What are the alternatives to being in this study?**

Instead of being in this research, you may choose not to participate.

**Who will have access to my information?**

The records of this study will be kept private. No names are being requested when filling out the surveys. Once the survey is closed, no data will be maintained with ACLD. Your answers to the survey questions will only be available to the researchers on the team. We are not asking you for your name on the survey and your signed consents will be kept separate from the surveys in a secure locked drawer in my office.

However, to ensure that this research activity is being conducted properly, Molloy College's Institutional Review Board (IRB), whose members are responsible for the protection of human subjects' rights for all Molloy-approved research protocols, have the right to review study records, but confidentiality will be maintained as allowed by law.

The results of this research will be made available to all participants as requested.

**How will my information be used?**

Your responses to the survey questions (your data) will not be used or distributed for future research, even though it is de-identified.

**Can my participation in the study end early?**

Participants may decide to stop participating at any point during this study.

**Will I receive any compensation for participating in the study?**

No, participation is voluntary.

**What if I have questions?**

Before you decide whether you'd like to participate in this study, please ask any questions that come to mind now. Later, if you have questions about the study, you can contact Dawn DiStefano at (516) 323-3096 or [ddistefano@molloy.edu](mailto:ddistefano@molloy.edu).

**What are my rights as a research participant?**

You have rights as a research participant. All research with human participants is reviewed by a committee called the *Institutional Review Board (IRB)* which works to protect your rights and welfare.

**If you have questions about your rights, an unresolved question, a concern or complaint about this research you may contact the IRB contact the Molloy IRB office at [irb@molloy.edu](mailto:irb@molloy.edu) or call 516 323 3000.**

**Documentation of Informed Consent:**

You are freely making a decision whether to be in this research study. Signing this form means that

- 1. you have read and understood this consent form**
- 2. you have had your questions answered, and**
- 3. after sufficient time to make your choice, you have decided to be in the study.**

**You will be given a copy of this consent form to keep.**

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Your signature

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Date

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Your printed name

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Date

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Signature of researcher explaining study

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Date

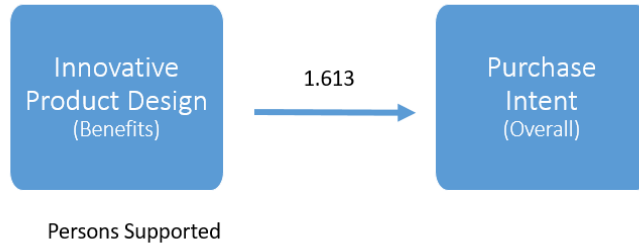
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Printed name of researcher explaining study

## Appendix G

### Statistical Framework

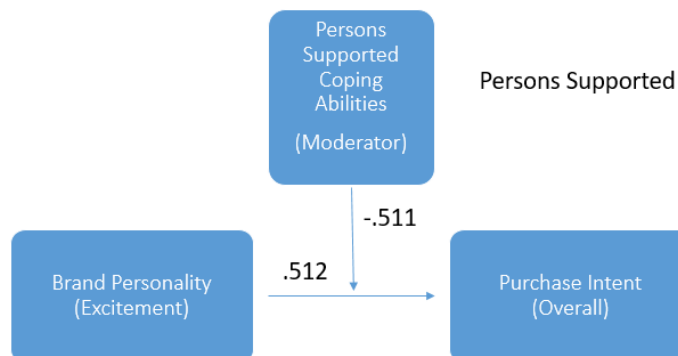
#### Innovative Product Design Model



#### Brand Personality Model



#### Brand Personality and Purchase Intent Moderator Model



## Appendix H

Table Regressions

	All Data (n=144)				Person Supported (n=71)				Professional Staff (n=73)			
	Beta	B2	E	Signif-E	Beta	B2	E	Signif-E	Beta	B2	E	Signif-E
<b>Purchase Intent</b>												
BP-Sincerity	0.683	0.037	5.431	0.021	1.230	0.054	3.945	0.051	-0.308	0.017	1.230	0.271
BP-Excitement	0.447	0.016	2.261	0.135	0.834	0.036	2.596	0.112	-0.228	0.009	0.649	0.423
BP-Competence	0.504	0.017	2.471	0.118	0.743	0.012	0.824	0.367	-0.390	0.026	1.869	0.176
BP-Sophistication	-0.295	0.100	1.499	0.223	-0.197	0.003	0.203	0.654	-0.190	0.010	0.748	0.390
BP-Ruggedness	-0.713	0.048	7.141	0.008	-0.926	0.068	5.070	0.028	-0.286	0.015	1.054	0.308
BP-Benefits	0.077	0.000	0.045	0.833	0.122	0.000	0.025	0.876	-0.371	0.020	1.436	0.235
IPD-Aesthetics	0.366	0.013	1.926	0.167	1.212	0.106	8.221	0.005	0.022	0.000	0.008	0.931
IPD-Features	0.344	0.011	1.594	0.209	1.333	0.121	9.486	0.003	-0.019	0.000	0.005	0.945
IPD-Ergonomics	0.423	0.011	1.623	0.205	0.966	0.038	2.717	0.104	-0.095	0.001	0.097	0.756
IPD-Benefits	0.501	0.016	2.302	0.131	1.163	0.117	9.147	0.003	-0.032	0.000	0.010	0.921
<b>Purchase Intent - Basic</b>												
BP-Sincerity	0.522	0.023	3.314	0.071	1.138	0.500	3.603	0.062	-0.494	0.044	3.261	0.075
BP-Excitement	0.410	0.014	2.011	0.158	1.074	0.064	4.755	0.033	-0.441	0.034	2.511	0.117
BP-Competence	0.393	0.011	1.588	0.210	1.057	0.026	1.810	0.183	-0.606	0.062	4.700	0.034
BP-Sophistication	-0.379	0.018	2.637	0.107	-0.038	0.000	0.008	0.928	-0.435	0.055	4.130	0.046
BP-Ruggedness	-0.589	0.035	5.091	0.026	-0.579	0.029	2.034	0.158	-0.410	0.030	2.210	0.142
BP-Benefits	-0.004	0.000	0.000	0.991	0.587	0.009	0.615	0.435	-0.650	0.061	4.607	0.035
IPD-Aesthetics	0.363	0.014	2.012	0.158	1.261	0.124	9.733	0.003	-0.042	0.000	0.027	0.870
IPD-Features	0.300	0.009	1.287	0.258	1.333	0.129	10.261	0.002	-0.126	0.003	0.220	0.640
IPD-Ergonomics	0.483	0.016	2.252	0.136	1.128	0.055	4.045	0.048	-0.091	0.001	0.089	0.766
IPD-Benefits	0.498	0.017	2.413	0.123	1.688	0.137	10.932	0.001	-0.112	0.002	0.126	0.724
<b>Purchase Intent - Luxury</b>												
BP-Sincerity	0.999	0.054	8.083	0.005	1.413	0.049	3.589	0.062	0.054	0.000	0.023	0.881
BP-Excitement	0.514	0.014	2.037	0.156	0.353	0.004	0.312	0.578	0.186	0.004	0.265	0.609
BP-Competence	0.717	0.024	3.448	0.065	0.116	0.000	0.014	0.907	0.032	0.000	0.007	0.932
BP-Sophistication	-0.131	0.001	0.202	0.654	-0.515	0.014	0.968	0.329	0.295	0.015	1.108	0.296
BP-Ruggedness	-0.964	0.060	9.044	0.003	-1.621	0.145	11.718	0.001	-0.044	0.000	0.015	0.902
BP-Benefits	0.232	0.002	0.274	0.601	-0.809	0.011	0.756	0.388	0.174	0.003	0.189	0.665
IPD-Aesthetics	0.364	0.009	1.297	0.257	1.112	0.062	4.568	0.036	0.137	0.002	0.173	0.679
IPD-Features	0.425	0.012	1.663	0.199	1.333	0.084	6.304	0.014	0.183	0.004	0.286	0.595
IPD-Ergonomics	0.294	0.004	0.533	0.467	0.641	0.012	0.807	0.372	-0.118	0.001	0.092	0.762
IPD-Benefits	0.497	0.011	1.541	0.217	1.461	0.067	4.921	0.030	0.111	0.001	0.076	0.784

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