



**new balance**

**COLLEGE STUDENT SELECTION OF  
SPORTS SHOES:**

A Measurement Model for New Balance

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## **I. Introduction**

New Balance would like to increase its brand awareness and market penetration among college students on its athletic shoes. In order to achieve this goal, I will examine the following research question: What are the factors that influence a college student's decision to purchase a specific brand of athletic shoes? I am interested in determining the possible reasons why college students purchase and use New Balance athletic shoes, as well as understanding the various elements behind their cognitive decisions. I will reflect on prior research on athletic shoes and perform a current analysis on the college students' purchasing habits and usage pattern and satisfaction of the athletic shoes. Through a pre-test survey on the factors that shape a student's decision to purchase athletic shoes, I will be able to quantify the validity and reliability of the measures that were employed in this research design.

## **II. Background**

### **The Client**

Among all the brands in the athletic footwear industry, New Balance might be the most distinct one compared to its competitors. According to Hoover's Company Record's (2012), New Balance never uses celebrity as spokesperson; it always puts substance ahead of style and it still keeps domestic manufacturing. All these strategies are rarely applied by its competitors in this industry. However, for over 100 years, New Balance Athletic Shoe, Inc., best known as simply New Balance, has become a leading manufacturer of high-performance athletic footwear and apparel in the U.S. and throughout the globe.

Headquartered in Boston, MA, New Balance now is well-known for its technically innovative performance footwear for women, men, and children. Founded in 1906 as New Balance Arch Company and owned by William Riley, the company first manufactured arch supports and other accessories designed to improve shoe fit. In 1956, Paul Kidd bought the business and expanded the shoe making sector (“Corporate History,” 2008). The demand for New Balance athletic shoes grew and soon the production of custom-made running shoes was the company’s primary source of business.

In 1972, New Balance was purchased by its current owner, James S. Davis, who later started to make the “Trackster,” the first athletic shoe made in a wide range of sizes and widths (“About New Balance,” 2012). Since then, New Balance has established a unique reputation for technological innovation and width sizing, and today, reigns as the industry’s “fit expert” and the premiere manufacturer of performance-oriented athletic footwear.

Now New Balance’s range of product categories covers running, training, walking, basketball, tennis, adventure, football, lifestyle and kids. Work and hiking boots, sandals, boat shoes and rugged casual styles are available through the company’s Dunham outdoor performance brand, which joined the New Balance family in the Fall of 1998. In Spring 2003, active casual footwear for men and women debuted under the recently acquired PF Flyers brand. In Spring 2004, the company introduced Aravon, an entirely new comfort performance brand, and also acquired Warrior Lacrosse, the premier lacrosse equipment manufacturer, to penetrate the team

sports market (“About New Balance,” 2012). In 2009, New Balance first launched its lifestyle sports shoe line.

New Balance sells its products in more than 120 countries. Outside North America, the company operates in Australia, Brazil, Canada, France, Germany, Hong Kong, Mexico, New Zealand, Singapore, South Africa, Sweden, and the UK (Hoover’s, 2012). It owns a handful of manufacturing facilities in the US (in Maine and Massachusetts) and the UK. Among all the athletic shoe manufacturers in the U.S., New Balance is the only one that still maintains manufacturing presence in the U.S., which is a commitment to its consumers since it was established. Twenty-five percent of New Balance shoes sold domestically is produced by US workforce, using US and imported materials (“Made or Assembled in America”). Due to this fact, the manufacturing cost of New Balance athletic shoes are higher than that of its competitors who outsource the majority of their footwear to manufacturers in China, Vietnam, and other developing nations. To offset this pricing discrepancy, New Balance differentiates their products with technical innovations, such as a blend of gel inserts, heel counters, and a greater selection of sizes, particularly for very narrow and/or very wide widths (Datamonitor, 2007).

As for distribution, New Balance mainly sells its footwear in its own stores and those of specialty retailers. Since the boost of online shopping, New Balance has joined a growing list of companies that understand the urgency of modernizing the way of conducting business with retailers through more efficient processes, real time information, and better customer service. In August 2010, New Balance selected

Centerstone, an online technology company in Europe, for online B2B e-commerce in Europe (“New Balance Selects,” 2008).

While the company does not enlist the help of high-profile celebrities and athletes to peddle its products, New Balance regularly sponsors races, teams, youth sports, and track and field events. Such events include The Elite Racing Rock 'n' Roll Marathon Series and the Girls on the Run training program, among others (Hoover’s, 2012).

Over the past few years, New Balance’s growth has significantly out-paced that of the industry. According to the news from Sporting Goods Business (SGB), New Balance’s worldwide sales have grown from \$210 million in 1991 to \$1.78 billion in 2010 (“New Balance sees,” 2011).

As a privately held company, New Balance has remained committed to a focused set of philosophies and strengths -- including technical superiority, width-sizing, U.S. manufacturing, grassroots promotions and strong partnerships with its retailers and suppliers. Teamwork, total customer satisfaction and integrity are the core values upon which New Balance operates, and the company’s tremendous success can be credited to its unyielding commitment to these values (“The Company,” 2008).

## **The Competition**

### **NIKE, Inc.**

There is no doubt that NIKE, Inc. is the world's NO.1 maker of athletic footwear and apparel (SGB, 2008; Hoover’s, 2012). So far, its leading position in the athletic footwear industry cannot be challenged by any other brand. Headquartered near Beaverton, Oregon, the athletic shoe behemoth sells its items in some 690

NIKE-owned retail stores worldwide and through about 23,000 retail accounts in the US and via independent distributors and licensees in other countries (Hoover's, 2012). According to Hoover's Company Record(2012), Nike's footwear sales was \$10.33 billion in 2010, logged only a modest decline in revenues among the more bleak results of some of its rivals and manufacturers in general.

Nike was founded in 1962 as Blue Ribbon Sports by Bill Bowerman and Phil Knight and officially became NIKE, Inc. in 1972, named for the Greek goddess of victory. Nike markets its products under its own brand, as well as Nike Golf, Nike Pro, Nike+, Air Jordan, Nike Skateboarding, and subsidiaries including Cole Haan, Hurley International, Umbro and Converse. In addition to manufacturing sportswear and equipment, the company operates retail stores under the NIKETOWN name ("About Nike, Inc.," 2011).

Nike promotes its products by sponsorship agreements with celebrity athletes, college athletic teams and professional teams around the world, with its highly recognized trademarks of "Just Do It" and the Swoosh logo. According to the Sports Business Journal (2009), Nike spent close to \$3 billion in endorsements and sponsorship deals in 2007 with players like Michael Jordan and Tiger Woods receiving over \$20 million each. Besides Michael Jordan and Tiger Woods, Nike's famous athlete endorsers also included tennis players James Blake and Jim Courier, football player Bo Jackson and baseball player Kevin Coddington. These celebrity endorsers helped Nike dramatically boost its brand awareness and sales. Sporting Goods Business Update (SGB UPDATE) conducted a survey to evaluate the brand

strength of various athletic shoe brands in 2008. SGB UPDATE found that “Nike has the strongest brand in the industry [according to both the overall respondents and the teen respondents]. Nike particularly benefited from a very high level of awareness from the survey population, but also from strong brand loyalty” (Anonymous, 2008, p. 22). Notably, Nike’s target audience is the young generation between 18 and 35 years old and it enjoys a high reputation and brand loyalty within that group.

### **Adidas AG**

Adidas AG is a German sports apparel manufacturer and parent company of the Adidas Group, which consists of the Reebok sportswear company, TaylorMade-Adidas golf company (including Ashworth), and Rockport. The company is the largest sportswear manufacturer in Europe and the second-biggest sportswear manufacturer in the world, with American rival Nike being the biggest (“Adidas, Deutsche Telekom,” 2008). It sells sports shoes, apparel, and equipment with its iconic three-stripe logo in 170 countries.

Adidas grew out of an infamous rift between German brothers Adi and Rudi Dassler, who created athletic shoe giants Adidas and Puma. Business boomed until the Nazis commandeered the Dassler factory to make boots for soldiers. It continued to expand globally in the 1960s and 1970s to maintain its dominant position. Adidas became Adidas-Salomon in 1997 with its \$1.4 billion purchase of Salomon, a French maker of skis and other sporting goods. In 2006, the company changed its name to Adidas AG (Hoover’s, 2012).

Adidas, like other sports brands, is believed to engender high consumer brand

loyalty. "Impossible is Nothing" is the current mainstream marketing slogan for Adidas. During the mid to late 1990s, Adidas divided the brand into three main groups with each a separate focus: Adidas Performance was designed to maintain their devotion to the athlete; Adidas Originals was designed to focus on fashion and life-style; and Style Essentials, which focusing on young style-adopting consumers.

With the global recession that took place in 2009, Adidas saw one of its most challenging years of the decade as consumers spent less. The company logged a 53% drop in operating profit (Hoover's, 2012). In 2010, the company streamlined operations and reorganized reporting segments but still took a hit to net income due to the high costs of launching new products. The plans to continue offering products with both mass and niche appeal, allowed each of its brands to maintain a unique identity. It also planned to emphasize emerging markets, including Russia and China, and increase its penetration in the US.

To fulfill its goal of growth in China, Adidas says it will add 2,500 stores there by 2015, putting upscale outlets in the large cities and teen-targeted, casual NEO shops in smaller markets (Hoover's, 2012). Other moves include expanding e-commerce, through a venture with China's biggest online retailer, Taobao.com; sponsoring running competitions; and partnering with workout center chains.

### **Other Competitors**

Besides Nike and Adidas, the two main competitors in the athletic shoe industry, New Balance also has other competitors whose influence is not as significant as Nike and Adidas. Those competitors include both traditional athletic shoe brands, such as

Puma SE and Skechers U.S.A., and emerging brands that focusing on “tactical” footwear—sneakers that incorporate elements of footwear worn by law enforcement officials, such as Magnum and S.W.A.T. (“Unconventional competitors,” 2008).

Puma SE, officially branded as PUMA, is a major German multinational company that produces athletic shoes, footwear, and other sportswear. The company, which designs and makes footwear, apparel, and accessories sold under the PUMA, Tretorn, and Cobra Golf labels, was formed when German brothers Rudi and Adi Dassler feuded and split their family firm into Adidas and PUMA. While shoes are Puma's heritage, apparel accounts for a growing portion of sales. Puma operates its own retail stores and controls product distribution in many countries. French luxury-goods giant PPR owns a majority stake in Puma (Hoover's, 2012).

Puma is more than a year into a five-year strategy, embarked upon in fall 2010, dubbed "Back on the Attack." The plan aims to position Puma as the most desirable "sportlifestyle" (defined as sports performance business that caters to its customers' lifestyle) brand in the world, with sales of €4 billion by 2015. The strategy includes additional growth from acquisitions, following its purchase of Cobra Golf from Acushnet in 2010 to expand its golf business for its upside potential and high-end customers. With more than €2.8 billion in sales in 2010, PUMA appears to be on its way to achieving its €4 billion target. Among the overall sales, outperformed footwear contributed nearly 8% (Hoover's, 2012).

Skechers U.S.A is an American shoe company headquartered in Manhattan Beach, California, founded by CEO Robert Greenberg (“Sole Survivor,” 2008). The company

sells more than 3,000 styles of lifestyle and athletic footwear for men, women, and children. In addition to its Skechers-branded products, the company also offers fashion and street-focused footwear under the Marc Ecko, Zoo York, and Mark Nason names. Its shoes are sold through department and specialty stores in more than 100 countries, as well as some 285 company-owned concept and outlet stores and its website (Hoover's, 2012). Sketchers footwear is manufactured primarily by Chinese contractors.

One of Skechers' longtime strategies is to build brand awareness by opening up new retail stores. Currently it has about 245 stores in the US and another 45 overseas (Hoover's, 2011). Catering to its core customers, Skechers consistently peddles its products to style-conscious 12 to 24-year-olds with footwear that boasts colors and materials that are playful. Since its inception, the firm has extended its reach to younger and older audiences from 5 to 40 years old. To its benefit, Skechers steers clear of competing alongside high-dollar, technical performance footwear makers, such as NIKE and Adidas. To promote its fitness footwear, the company has endorsement deals with the likes of Kim Kardashian, TV personality Brooke Burke, and hockey great Wayne Gretzky (Hoover's, 2011).

Skechers U.S.A. saw its sales jump by nearly 40% in 2010 vs. 2009 to about \$2 billion. The robust increase was spread across all of the company's business segments. The company's net income nearly tripled in 2010 vs. the year earlier. The company credited success in 2010 to the popularity of toning fitness footwear, more kids styles, and a larger assortment of boots (the hot footwear item of 2010), among other things.

Skechers is looking to grow its international business from about 25% of its revenue to 30% in 2011 (Hoover's, 2012). To this end, the footwear firm is leveraging its joint ventures in Asia, developing its businesses in Brazil and Chile, and boosting its presence in India and Mexico, as well as existing markets (Hoover's 2012).

Besides these traditional athletic shoe brands, "tactical" footwear—sneakers that incorporate elements of footwear worn by law enforcement officials—is considered the next frontier of the industry. According to Mintel's Athletic Shoes-US 2008 Report, companies like Magnum and S.W.A.T. have focused on this new growing point. Their products are meant to appeal to younger consumers who have grown up with the comfort and style of athletic footwear and are seeking the same in their work shoes (Hoover's 2012).

Magnum offers the Spider collection of lightweight supportive styles, based on sister brand Hi-Tec's V-Lite metal-free technology. S.W.A.T.'s collection combines two key design elements: the versatility and durability of an athletic shoe, and lighter-weight materials than those used in traditional work shoes, such as compression-molded EVA soles and air technology in the heel ("Unconventional competitors," 2008).

Originally created for individuals in the law enforcement field, the shoes already have wider appeal with younger customers, according to a S.W.A.T. company spokesperson. Other products in this niche include shoes that wear as sneakers and require no break-in time, such as Rocky Brands' Eliminator X, which debuts in fall 2008 ("Unconventional competitors," 2008).

## The Industry

With regard to the sport industry, athletic footwear is a thriving and lucrative business. According to the National Sporting Goods Association (2009), athletic shoe sales reached \$17.1 billion for 2009. Furthermore, of the 2.3 billion pairs of footwear purchased in the United States in 2007, Americans purchased 334 million pairs of athletic shoes (American Apparel and Footwear Association, 2008).

From 2002-2007, the athletic shoes market has grown consistently at approximately 2.8% per year, growing by \$2.4 billion (“Overall Sales Growth,” 2008). Running shoes remain the number one category, and Lifestyle Fashion Athletic (LFA) shoes have become more prominent while basketball shoe sales have slowed slightly. Running, classic/originals, kids, and basketball shoes represent over half of the wholesale market for athletic shoes. Companies that can successfully compete in these categories can realize significant benefit. The most notable increases were seen in casual/fashion and outdoor/adventure shoes. According to Mintel’s Athletic Shoes Report- US (2008), the outdoor/adventure category accounted for over 4% of the wholesale athletic shoe market, revealing consumer interest in green living and reducing one’s carbon footprint, offer growth possibilities within the segment. (“Athletic Shoe Categories,” 2008)

As for the segment performance, Mintel’s Athletic Shoes Report- US (2008) posited that men’s athletic shoes experienced a minimal 6% sales growth from 2002-2007, losing share to women’s and children’s shoes. In contrast, both women’s and children’s athletic shoes experienced strong growth—23% and 26%

respectively—over the review period (“Segment Performance,” 2008).

There is a significant trend in the athletic shoe industry, which is the boost of Lifestyle Fashion Athletic (LFA) shoes. According to SportsOneSource, LFA sales were predicted to grow by 55% from \$2 billion in 2007 to \$3.1 billion in 2008, making the category larger than basketball shoes, which were forecasted to shrink by 5% to \$2.7 billion. This represents a significant shift in the market, and will be the first time that non sport-specific shoes account for such a large percentage of the market (“Market Size and Forecast,” 2008).

Given the above noted changes in the market place, some brands are better positioned than others to succeed in this new market. Nike, Skechers and Puma will all likely benefit from the shift to lifestyle fashion athletic shoes. However, New Balance, on the other hand, has virtually no presence in the LFA category of shoes, and is seen as strictly performance footwear. This trend may pose a challenge as non performance-oriented footwear gains in popularity. (“Winners and Losers,” 2008)

### **College Market Sector**

White (2001) stated that the college market is a critical segment for marketers to reach and listen to because college students are faced with a whole range of life decisions, including many first-time purchase decisions without input from parents. Due to the size and characteristics of the market, college students are one of the most important markets for many companies (Wong & Smith, 2002; White, 2001; Miller, 1998), especially athletic footwear companies. According to Mintel’s Athletic Shoes Report- US (2008) and SGB’s Brand Strength Report (2008), people between 18-24

years old purchased athletic shoes more frequently than the older generation.

According to Mintel's study (2008), younger respondents are more likely to believe that sneakers should be both fashionable and functional. Respondents between 18-24 years old are far more likely to "prefer to wear the same sneaker brands as my friends," and believe that it is "important to me to have the newest look/style of sneaker" ("Attitudes toward Athletic Shoes," 2008). In addition, younger respondents are more likely to purchase such shoes for a specific sport. They are far more likely than older ones to purchase athletic shoes for team sports.

Among college athletic shoe consumers, Nike, Adidas, and Converse are the three most popular brands. Mintel's exclusive research (2008) showed that 41% of 18-24s purchased Nike sneakers in the past 12 months, compared to just 12% of over-65s (Mintel, 2008).

In contrast, New Balance was considered "uncool" among teenagers ("Retail Survey Report," 2008). The brand clearly skews toward the older consumers, as purchase incidence increases with age, from just 12% among teens to 22% of all adults. Therefore, the market segment of college students can be a potential expansion market for New Balance (Mintel, 2008).

### **III. Literature Review**

#### **Scholarly Journals**

In order to search for possible predictors that influence college students' athletic shoe purchasing behavior, I reviewed the past scholarly articles relevant to this topic. This examination of past studies helped me compile an extensive list of variables, from which I can develop a comprehensive research design.

Generally, college students' purchasing frequency and channel of athletic shoes can be found in the literature. In a 2008 study by Hsu and Chang, a total of 600 students from six universities in northern, central, and southern Taiwan were surveyed for their family communication patterns and the purchasing decision patterns of sports shoes. There are 576 valid responses (298 male and 278 female), with the age ranges of 18 to 26-years-old and the average age of 20.47. In this study, Hsu and Chang found that the respondents bought new sports shoes every 8.68 months. Specialty shops were preferred channel of sports shoes purchasing, followed by department stores (Hus & Chang, 2008).

Socialization agents were found to be important factors that influence college students' purchase of athletic shoes by many studies. In a 2001 study by Yoh, a survey of 418 students was conducted to examine how socialization agents influence college students' brand preference for athletic shoes. The survey was administered at a major university in the southeastern U.S., with 220 females and 198 males. Yoh (2001) found that peers, sales people, mass media and family were the primary socialization agents for the college students' athletic shoe brand preference. Among the four

socialization agents, peers had the most influence on college students' athletic shoes purchasing (Yoh, 2001).

The same conclusion was confirmed by Lachance, Beaudoin and Robitaille (2003) among adolescents in Canada. In this study, a total of 1034 adolescents from 11 to 18 years old were surveyed and the results also revealed that peers are the most important agents that influence the respondents sports shoe purchasing (Lachance Beaudoin & Robitaille, 2003).

Yoh and Pitt (2005) also obtained similar findings in their study of college students' information sources of athletic shoes. In a survey of 418 students at a large NCAA Division I-A university in the southeastern United States, 156(37.3%) respondents stated that peers were the greatest information sources, followed by salespeople (125; 29.9%), mass media (102; 24.4%), and family (35; 8.4%). Again, peers were found to be the most frequently mentioned information source by college students' in terms of their athletic shoe purchasing. This finding is consistent with previous studies (Yoh & Pitt, 2005). Feltham (1998) claimed, different from adolescents, college students are more independent from their family. Therefore, family influences (especially parental influence) significantly decreased while friend influences significantly increased as a source of information.

Hsu and Chang (2008) also found the suggestions from friends and salespersons were influential for young adults in making purchasing decisions of sports shoes in their survey of 576 college students from six universities in Taiwan. They also found that newspapers/magazines were considered as important information sources of

sports shoes by college students. Although family was not found to be a major information source for college students' athletic shoe purchasing in the aforementioned study by Yoh and Pitt (2005), Hsu and Chang (2008) asserted that family communication pattern could influence college students' sports shoes purchasing. By analyzing the data from the survey, they recognized that the respondents from the families with socio-oriented communication pattern, within which parents encourage young generations to develop own consumption preferences, purchased sports shoes less frequently, and pay less attention to marketing-related information like advertising or prices; while the respondents from the families with conceptual-oriented communication pattern, within which parents request young generations to comply with parental standards of consumption, paid special attention to the marketing-related information, and brands can be considered more important in making purchasing decisions. Respondents in this cluster also bought sports shoes more frequently with higher budgets (Hsu & Chang, 2008).

There are also studies that examined the influence of another socialization agent –sports celebrities – on college students' athletic shoes purchasing. Dix, Phau and Pougnet (2010) conducted a study among 207 college students (107 males and 100 females) in Western Australia. The study proposes that sports celebrities have significant impact on young adults' purchase intentions and behaviors; female are more susceptible to athlete endorsements. Consistent with this hypothesis, the study found young adults' perception of celebrity athlete endorsers has a positive influence on their product switching intentions, complaint intentions, positive word-of-mouth

and brand loyalty. However, the study didn't find a significant difference between male and female college students' with respect to sports celebrities' influence on purchasing intentions and behaviors (Dix, Phau & Pougnet, 2010).

Besides socialization agents, the beliefs and attitudes toward brand were also found significantly influencing college students' purchase of athletic shoes. In 2000, Yoo, Donthu and Lee conducted a study to explore the relationships between selected marketing elements and the creation of brand equity, which indicates consumers' beliefs and attitudes toward a brand, using athletic shoes as one of the product stimuli. A total of 569 college students with the average age of 23.7 from a major state university in U.S. participated in this study. The researcher found that Respondents' brand loyalty and brand awareness were also found exerted a positive influence on their purchase of specific brand of sports shoes. In addition, respondents' selection of a specific brand of sports shoes was also positively related to several belief elements that contributed to their attitudes toward the brand, including perceived product quality, attitude toward the product price, perceived advertising spending. (Yoo, Donthu & Lee, 2000).

The aforementioned conclusions were supported by the findings from other studies. At two major universities in Taipei, Liou (2004) randomly surveyed 400 students to explore the relation among brand awareness, brand loyalty and purchase decision, taking sports shoes as the demonstrative product. Based on the researcher's investigation, with respect to college students' purchase of athletic shoes, brand awareness has a positive influence on brand loyalty, which directly influenced the

selection of athletic shoes (Liou, 2004). Therefore, enhancing brand awareness and brand loyalty is especially important in increasing the purchase of a specific brand of athletic shoes.

Esch, Langner, Schmitt and Geus (2006) also emphasized the significant influence of brand awareness on college students' athletic shoe purchasing behavior. In the article, they suggested that "brand awareness affects brand image and that both aspect of brand knowledge are direct determinants of current consumer purchase behavior. Brand image, in particular, exercises a strong direct influence on current brand-loyal purchase behavior" (p. 103).

Tsiotsou (2006) investigated the effects of perceived product quality and overall satisfaction on purchase intentions by an analysis of the survey involving 197 college students whose mean age was 21.64. The researcher found that "involvement with the product was positively related to perceived quality, overall satisfaction, which had direct positive effects on purchase intentions ... Thus, consumer involvement, overall satisfaction and perceived product quality can be used as predictors of purchase intentions" (p. 213).

Several value-related variables were also found to be predictors of college students' athletic shoes purchasing behavior. Before focusing on purchase of sports shoes, reviewing some studies that generally explored college students' shopping value can be helpful. A study aiming at determining Mid-generation Y member's (individuals ages 18–22 in 2008) purchasing motivation was conducted by Noble, Haytko and Phillips in 2009. A total of 32 United States college students from public

Universities in Mississippi, Missouri, Texas and Florida were participated in in-depth interviews administered by the researchers. By analyzing respondents responses in the interview, seven categories of variables, including freedom, finding yourself, blend in/stand out, brand personality, fashion knowledge, value-seeking and the comfort of brands influence retail patronage and product purchases, were found to be the common purchasing motivation of college students (p. 619). Therefore, it is reasonable to infer when making purchasing decisions for athletic shoes, college students may also take these factors into consideration.

Studies that specially focused on sports shoes purchasing supported the above inference. According to Chiu, Chiu, Lee, et al. (2004), college students' personal values had influences on their decision-making process of athletic shoe purchasing. The research used a self-reported e-mail questionnaire. A total of 1,000 college students in Taipei metropolitan were randomly selected from e-mail directories and a total of 217 returned. Of the 217 responses received, 204 were identified as useable. 93 respondents (45.6%) were female and 111 respondents (54.4%) were male. More than eighty percent of the respondents were 21-25 year-old. The study found that in decision making of athletic shoes purchasing, respondents considered price and style as the most important factors, followed by function, quality, brand loyalty, promotion, advertisement, peer pressure, and distribution channel. In addition, the findings specifically suggested that males were more function-oriented than females for buying sport shoes. Moreover, males rated sense of belonging and security less important than females. Results indicated that personal values were far more likely than

demographic characteristics to comprehend the significance existed among different decision-making criteria for sport shoes buying behavior (Chiu et al., 2004).

Chen-Yu, Hong and Seock (2010) conducted a survey among 307 United States (US) students and 297 South Korean (SK) students to compare their apparel motives and store selection criteria. The findings revealed that “more US participants were in the recreation group. Participants in this group enjoyed shopping for clothing because it put them in a good mood. They considered themselves fashion-conscious and were willing to spend time to find the garment that looked best on them” (p. 139).

The factor of product variety/price was the most important store-attribute criteria for the U.S. participants when purchasing apparel. This result is consistent with the studies conducted by Rabolt et al. (1988), which showed that product variety and price were the two most important store attributes for US college students. The study also found that “US participants considered the availability of well-known brands as a significantly more important store attribute than the SK participants” (Chen-Yu, Hong, & Seock, 2010, p. 140).

Other retail-related variables were also found to have impact on college students’ purchase of athletic shoes. In the aforementioned study conducted by Yoo, Donthu and Lee (2000), the findings revealed that store image and distribution intensity were positively related to college students’ purchase of athletic shoes. Both of the two factors exerted direct influence on consumers’ beliefs toward a specific athletic shoe brand, which further influenced their purchase intention of that brand’s athletic shoes (Yoo, Donthu & Lee, 2000).

Besides entity athletic shoe store, online retail was also found to be a popular shopping channel among college students (Intel, 2008). Xu and Paulins (2005) found that “there was strong relationship between [college] students attitudes and intentions toward shopping online for apparel products ... Fit of products, good price, convenience, secure credit card information, good quality and easy return policy are the areas on which online retailers can focus in order to improve student’s (customer’s) attitudes toward shopping online for apparel products and hence to increase their intention to shop online for apparel products” (p. 430).

Previous studies also indicated that product-based variables were served as predictors of college student’ athletic shoe purchasing. According to Fowler (1999), both male and female college students look for comfort, quality, durability and style when making purchasing decision for sport apparel, however female respondents ranked fit significantly higher than male respondents (Fowler, 1999).

### **Newspapers and Magazines**

On March 18, 2006, the Wall Street Journal reported that numerous athletic shoe brands had launched high-priced sneakers which were applying advanced technologies and materials and those high-priced sports shoes are finding favor with consumers: “Firm analyst Matt Powell says that sales of running shoes over \$100 represented 10% of the total running-shoe market so far this year, compared with 2% in the same period last year” (“Pursuits, Sports and Fitness,” 2006). This piece of news revealed that innovation features were probably related to purchase of athletic

shoes. Since the pursuit of innovation is even more significant among college students (Merrett, 2009), it is reasonable to assume that innovation feature is positively related to college students' athletic shoe purchase.

Recently, Investor's Business Daily, a national newspaper in the United States, discovered a new trend regarding to sports apparel purchasing in the context of the economic recession since 2008. It asserted that "the value proposition apparel retailers are seeking to lure newly frugal consumers up and down the income chain" (Much, 2011, Oct 10). According to the news, off-price apparel retailers Ross Stores and TJX have experienced at least nine quarters of solid sales growth. "Other chains in the group, including footwear retailer Genesco and men's clothing chain Jos. A Bank Clothiers, have managed similar results" ("Stretching The Value," 2011). Therefore, in the consumers' viewpoint, value consciousness can be considered as a possible predictor of college students' athletic shoe purchasing given the current economic situation.

### **Industry and Trade Publications**

From September 25 to September 30, 2008, Sporting Goods Business (SGB) conducted a survey on the brand strength of athletic shoes among 8001 respondents over 300 brands. According to the Brand Strength Report (2008), teen respondents purchased sports shoes much more frequently than the rest of the population. A total of 29% of the teen respondents said they would buy a pair of sports shoes every three months. Mall specialty stores (51%) and full-line sporting goods (50%) were the

purchasing channels most often used by the teen respondents. They were followed by department stores (32%), discount/mass merchants (29%) and local independent stores (27%) (SGB, 2008). The teen's purchasing attributes of athletic shoes mentioned above can be referred to when it comes to that of college students.

Mintel's Athletic Shoes - US Report (2008) indicated that Lifestyle Fashion Athletic (LFA) shoes have become more prominent in the industry. Fashion and price are two major factors that drive the sales of LFA products. According to a July 2007 article in Sporting Goods Business, the average price of a LFA shoe is about \$45, compared to \$60 for Performance Footwear (SGB, 2007).

According to this report, participation in sports can be another predictor for college student's athletic shoe purchasing. The survey found that younger respondents are more likely to purchase athletic shoes for a specific sport. Also, they are far more likely than older ones to purchase athletic shoes for team sports ("Attitudes toward Athletic Shoes," 2008).

Demographics served as possible predictors as well. Simmons NCS/NHCS data shows that the younger the male, the more likely he has purchased athletic shoes within the past year. Mintel's exclusive consumer research also finds that Hispanic respondents are the most likely to have purchased athletic shoes in the past 12 months, and are the most likely to have purchased them for their children ("Hispanics will be," 2008).

According to Fine (2002), media and online advertising are good tools to communicate to young customers and assist them in finding the garment that looks

best on them. According to the National Sporting Goods Association (NSGA), purchases of sports footwear on the Internet have gone from accounting for 0.6% of all purchases in 1999 to 6.3% in 2006. This represents an increase in dollars from \$73 million to slightly more than \$1 billion. Overall sales on the Internet have increased some 325% from 2000-06, while online sales of sports footwear have grown even faster with a 441% increase from 2000-2006. Online sales of athletic footwear continue to be strong, and within the industry may represent a shift away from more traditional retailers (“Online Stores gain,” 2008).

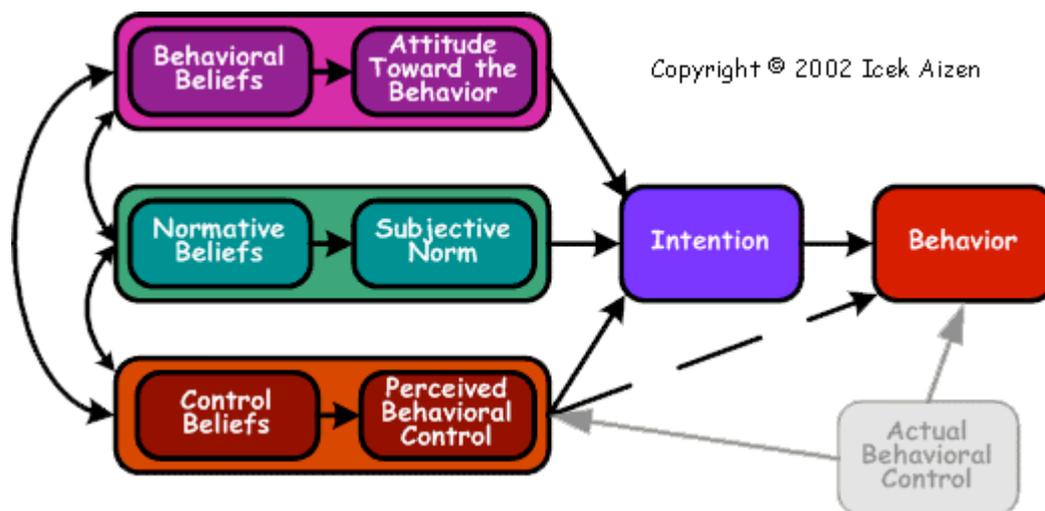
### **Theoretical Framework**

The previous sections reviewed the available scholarly articles, trade publications and newspaper/magazine literature regarding the selection and purchase of athletic shoes. While the predictors from these previous case studies and experiments are of great value to explain college students’ athletic shoe purchasing behavior, it is necessary that we rely on an appropriate theoretical framework to organize these predictors and suggest alternate factors that are unmentioned in the literature review. Based on existing predictors discovered from the literature, Icek Ajzen’s Theory of Planned Behavior (TPB) is the best-matched theoretical frame for this project.

Ajzen and Fishbein (1980) formulated the TPB model to estimate the differences between attitudes and behaviors as well as predict deliberate, planned behaviors (Ajzen, 1991). As shown in Figure 1, the researchers indicated that three types of beliefs drive human attitudes, which further guide human action: behavioral beliefs

(belief about consequences), normative beliefs (perceptions of the behavior from the people you care about), and control beliefs (factors that may impede performance of behaviors). These beliefs, in turn, influence whether or not an individual has a favorable or unfavorable attitude toward the behavior, subjective norms and perceived control over the behavior (Ajzen, 1991). Perceived behavioral control refers to people's perceptions about their ability to perform a specific behavior, and this deliberate performance influences human intention (Ajzen, 1991). Human behavior is then determined by the intention to behave in a particular way, and that intention is a function of the six aforementioned factors.

As shown in Figure 1, there are also external influences to behavior that lie outside of the TPB model, one such factor being actual behavioral control (Ajzen, 1991). In addition, possible predictors out of beliefs and attitudes are not covered in this model.



**Figure 1: The Theory of Planned Behavior Model**

Specifically to the project of athletic shoes, the TPB model has strong power to anticipate and predict consumer behavior, such as the decision to purchase a specific

brand of athletic shoes. This decision is made consciously through the reinforcement of the aforementioned set of beliefs. Therefore, these beliefs are the starting points from which intention to purchase a specific brand of athletic shoes arises. Therefore, the TPB model is applicable to this specific project of athletic shoe purchasing.

## **IV. Proposed Predictor**

### **From the Literature Review**

The scholarly articles, trade publications, newspapers, and magazines reviewed above identified a number of potential predictors of athletic shoes selection. These predictors can be allocated into the following categories: social variables, brand-related variables, value-related variables, retail-related variables, product-related variables, sports-related variables and demographics. These factors offer insight into the various potential answers to the research question: What are the factors that influence a college student's decision to purchase a specific brand of athletic shoes?

#### **Social variables:**

##### **Peer influence**

Scholarly Sources: Yoh, 2001; Lachance, Beaudoin & Robitaille, 2003; Yoh & Pitt, 2005; Hsu & Chang, 2008

##### **Influence of athlete/celebrity endorsement**

Scholarly Source: Dix, Phau & Pougnet, 2010  
Trade Sources: SGB, 2008; Hoover's, 2012

##### **Influence of salesperson**

Scholarly Sources: Yoh, 2001; Yoh & Pitt, 2005; Hsu & Chang, 2008

##### **Family communication pattern**

Scholarly Source: Hsu & Chang, 2008

##### **Involvement with the Product**

Scholarly Sources: Tsotsou, 2006; Noble, Haytko & Phillips, 2009

##### **Information Sources**

Scholarly Source: Yoh & Pitt, 2005

**Brand-related variables:****Attitude toward the ad (affective)**

Scholarly Source: Yoo, Donthu & Lee, 2000

**Attitude toward the ad (informativeness)**

Scholarly Source: Yoo, Donthu & Lee, 2000

**Perceived Advertising Cost**

Scholarly Source: Yoo, Donthu & Lee, 2000

**Perceived product quality**

Scholarly Sources: Yoo, Donthu & Lee, 2000; Tsiotsou, 2006

**Attitude toward the product price**

Scholarly Source: Yoo, Donthu & Lee, 2000

**Attitude toward the brand**

Scholarly Sources: Yoo, Donthu & Lee, 2000; Liou, 2004

**Brand loyalty**

Scholarly Sources: Yoo, Donthu & Lee, 2000; Liou, 2004

**Brand association/awareness**

Scholarly Sources: Yoo, Donthu & Lee, 2000; Liou, 2004; Esch, Langner, Schmitt & Geus (2006)

**Advertisement media (Single item measure)**

Trade Source: SGB, 2008

**Value-related variables:****Value of the offer**

Newspaper/Magazine Source: Investor's Business Daily, 2011, Oct 10.

**Value consciousness**

Newspaper/Magazine Source: Investor's Business Daily, 2011, Oct 10.

**Involvement of sales promotion deals**

Scholarly Source: Yoo, Donthu & Lee, 2000

**Satisfaction with the product**

Scholarly Source: Tsiotsou, 2006

**Attitude toward Online shopping**

Scholarly Source: Xu & Paulins, 2005

**Retail-related variables:****Perception of Store image**

Scholarly Sources: Yoo, Donthu & Lee, 2000; Chen-Yu, Hong, & Seock, 2010

**Influence of Distribution intensity**

Scholarly Source: Yoo, Donthu & Lee, 2000

**Influence of Online Shopping**

Scholarly Source: Xu & Paulins, 2005

Trade Source: Mintel, 2008

**Product-related variables:****Style/fashion**

Scholarly Sources: Chen-Yu, Hong, & Seock, 2010; Noble, Haytko & Phillips, 2009

Trade Source: Mintel, 2008

**Comfort**

Scholarly Source: Fowler, 1999

Trade Source: SGB, 2008

**Innovation features**

Newspaper/Magazine Source: the Wall Street Journal, 2006, March 18.

**Sports-related variables:****Perceived performance enhancement**

Trade Source: Mintel, 2008

**Type of person: Athletes, non-athletes**

Trade Source: Mintel, 2008

**Participation in sports (frequency, type, place)**

Trade Source: Mintel, 2008

**Demographics:****Gender**

Scholarly Sources: Fowler, 1999

Trade Source: Mintel, 2008

**Race**

Trade Source: Mintel, 2008

**From the Theory of Planned Behavior**

As previously mentioned in the theoretical frame section of this report, the Theory of Planned Behavior (TPB) is applicable to the athletic shoe industry. While the preceding section offers a comprehensive list of predictors of consumer behavior that were derived from the literature relevant to this specific topic, this section shows where each of those respective predictors falls within the framework and model of the TPB. Since the TPB model does not cover factors out of beliefs and attitudes, not all the proposed variables can be allocated in the TPB model.

**1) Behavioral Beliefs**

- Value of the offer
- Involvement with the Product
- Perceived Advertising Cost
- Perceived product quality
- Brand association/awareness
- Perception of Store image
- Style/fashion
- Comfort
- Innovation features
- Perceived performance enhancement

**2) Attitude Toward the Behavior**

- Satisfaction with the product
- Attitude toward the ad (affective)
- Attitude toward the ad (informativeness)
- Attitude toward the product price
- Attitude toward the brand
- Attitude toward online shopping

**3) Normative Beliefs**

- Peer influence
- Influence of athlete/celebrity endorsement
- Influence of salesperson

**4) Subjective Norms****5) Control Beliefs**

- Information Sources
- Advertisement media (Single item measure)
- Influence of Distribution intensity
- Influence of Online Shopping

**6) Perceived Behavioral Control****\*\*\*Variables Outside of the TPB**

- Value consciousness
- Involvement of sales promotion deals
- Family communication pattern
- Brand loyalty
- Type of person: Athletes, non-athletes
- Participation in sports (frequency, type, place)

**Selected Proposed Predictors**

Most, if not all, of the proposed predictors of functional sports drink selection, detailed in the previous sections, have a specific amount of influence on the purchasing decisions of consumers. With respect to time constraints, only a handful of these predictors will be applied to the survey. These proposed predictors have been chosen because they appear most frequently in previous literature on the topic and fit well within the theoretical framework of the Theory of Planned Behavior.

**1) Behavioral Beliefs**

- Value of the offer
- Involvement with the Product
- Perceived product quality
- Brand association/awareness
- Perception of Store image
- Style/fashion
- Comfort

**2) Attitude Toward the Behavior**

- Satisfaction with the product
- Attitude toward the product price
- Attitude toward the brand
- Attitude toward online shopping

**3) Normative Beliefs**

- Peer influence
- Influence of athlete/celebrity endorsement
- Influence of salesperson

**4) Subjective Norms****5) Control Beliefs**

- Influence of Distribution intensity
- Influence of Online Shopping

**6) Perceived Behavioral Control****\*\*\*Variables Outside of the TPB**

- Value consciousness
- Family communication pattern
- Brand loyalty
- Participation in sports (frequency, type, place)

## **V. Development of Measures**

One of the goals of this project is to develop and pre-test a survey that can be used to help identify the factors that influence a college student's decision to purchase athletic shoes. To accomplish this goal, the researcher developed specific multiple-item measures for 19 of the proposed predictors identified in the previous section, as well as single-item measures for other predictors, dependent variables, and demographics. For the 19 proposed predictors selected for this study, multiple-item measures were necessary to assess the content validity of each measurement item within a construct as well as assess overall reliability of the measures. Most of the multiple-item measures were adapted from studies found in the Marketing Scales Handbook (Bruner, 2009), although they were modified to some degree to both reflect the athletic shoe industry and the specific client New Balance and to ensure that the principles of measurement were applied to each item. The researcher evaluated the measurement items by applying the principles of measurement, as discussed in Table 1.

<b>Table 1: Principles of Measurement</b>	
<b>Language</b>	Measures were presented in simple, straightforward statements or questions in a spoken language style.
<b>Length</b>	Measures were kept short except where lengthy statements were necessary to emphasize meaning.
<b>Focus</b>	Measures were phrased to encompass only one dimension of the theme at a time. The researcher sought to avoid including any explicit or implicit double-barreled statements.
<b>Meaning</b>	The researcher's aim was to introduce concepts with the narrowest meaning possible to clearly express it to all respondents.
<b>Assumed Knowledge</b>	To avoid confusion, the researcher didn't assume that respondents knew what "athletic shoes" were. All statements were carefully composed to avoid making assumptions about respondent knowledge of the product category or brand.
<b>Word Choice</b>	Similar to language, as discussed above, the researcher took into account the subtleties of language when phrasing statements.
<b>Structure</b>	The researcher did not use double negatives.
<b>Order</b>	Upon creating the survey, the researcher thoroughly reviewed the order of the measurement items to avoid bias. In particular, the researcher formatted the survey to ask respondents of their general purchasing behaviors, then their athletic shoe purchasing behaviors and attitudes, and finally their specific brand of athletic shoe

	purchasing behaviors and attitudes.
<b>Neutral Stance</b>	Each multiple-item measure included a neutral stance as the midpoint of the five-point Likert scale. It was included to ensure that the data would be indicative of how respondents truly felt about a certain aspect of the product.
<b>Hypothetical</b>	The research employed hypothetical statements as dependent variables at the conclusion of the survey. The priming statement, “If you were to purchase a pair of athletic shoes tomorrow...” elicits this point.
<b>Open-Ended</b>	The researcher included open-ended statements only when it is necessary.
<b>Recall</b>	Respondent recall was enhanced through the use of priming Statements.

Source: Blumberg, D. (2010), Student selection of sports drinks: A measurement model for Gatorade, pp. 42-43

### **Multiple-Item Measures**

In the pre-test, multiple-item measures were used for 16 of the proposed predictors selected for this particular study. These measures comprise different categories as depicted in the framework of the Theory of Planned Behavior (TPB) and outside of the theory. These categories include (1) behavioral beliefs, (2) attitude toward the behavior, (3) perceived behavioral control, and (4) other variables, some of which may be found outside of the theory. The following tables describe the selected

constructs that measure each of the proposed predictors, as well as the items that comprise each construct. This phase of the project occurred between selection of the proposed predictors and the development of the survey instrument.

(1) Behavioral Beliefs (Ajzen, 1991)

**Construct:** Value of the

**Definition:** A consumer's perceived worth of a product versus the price required to purchase it.

**Source:** Items have been partially adapted from the Marketing Scales Handbook (Bruner, 2009), Scale #680 Value of the offer, as developed by Hardesty, Carlson, and Bearden (2002).

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
New Balance sports shoes are a good value of money.					
New Balance sports shoes are worth the price.					
New Balance sports shoes are not a very good buy for the money. (R)					

**Construct:** Involvement with the Brand

**Definition:** The extent to which a consumer views a particular brand as affecting his/her sense of identity and how one is viewed by others.

**Source:** Items have been partially adapted from the Marketing Scales Handbook (Bruner, 2009), Scale #376 Involvement with the Product, as developed by Traylor and Joseph (1984), changing "product" into "brand."

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
Wearing this brand of sports shoes helps me express who I am.					
When I'm wearing this brand of sports shoes, others see me the way I want them to see me.					
My selection of this brand of sports shoes has nothing to do with my personality. (R)					
Seeing somebody else wear this brand of sports shoes can tell me something about that person.					

**Construct:** Perceived product (Yoo, Donthu & Lee, 2000)

**Definition:** The consumer's [subjective] judgment about a product's excellence and superiority.

**Source:** Items have been partially adapted from the Marketing Scales Handbook (Bruner, 2009), Scale #497 Quality of the Product, as developed by Grewal, Monroe, Krishnan (1998).

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
This brand of sports shoes appear to be of high quality.					
This brand of sports shoes is durable.					
This brand of sports shoes is reliable.					
This brand of sports shoes is dependable.					

**Construct:** Brand Awareness

**Definition:** Brand awareness refers to the strength of the brand node in memory, whether the customers are familiar with the key values promoted in the advertisements of the product of a specific brand.

**Source:** Items have been partially adapted from the article An examination of selected marketing mix element and brand equity ((Yoo, Donthu & Lee, 2000)

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
In contrast to other brands of sports shoes, New Balance provides arch support.					
In contrast to other brands of sports shoes, New Balance provides selection of shoe width.					
In contrast to other brands of sports shoes, New Balance doesn't have celebrity endorsers.					
In contrast to other brands of sports shoes, some of the New Balance sports shoes are made in the U.S.A.					
In contrast to other brands of sports shoes, New Balance cares more about the fitness of feet.					

**Construct:** Perception of Store image

**Definition:** The attitudes toward the retailers at which the focal brand was available.

**Source:** Item one and two have been partially adapted from the Marketing Scales Handbook (Bruner, 2009), Scale #632 Store Atmosphere, as developed by Baker, Grewal and Parasuraman (1994). All other items were developed by the researcher.

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
The stores where I can buy this brand of sports shoes have a pleasant atmosphere.					
The merchandise appeared organized in the stores where I can buy this brand of sports shoes.					
The stores where I can buy this brand of sports shoes are decent.					
The stores where I can buy this brand of sports shoes are trustworthy.					

(2) Attitude Toward the Behavior

**Construct:** Satisfaction with the product

**Definition:** A consumer's degree of satisfaction with a product he/she has recently purchased.

**Source:** Items have been partially adapted from the Marketing Scales Handbook (Bruner, 2009), Scale #526 Satisfaction, as developed by Olive and Swan (1989).

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
I'm satisfied with my decision to buy the New Balance sports shoes.					
My choice to buy the New Balance sports shoes was a wise one.					
If I could do it over again, I'd buy a different brand of sports shoes. (R)					
Owning the New Balance sports shoes has been a good experience.					

**Construct:** Attitude toward the product price

**Definition:** A consumer's attitude regarding price of a product with an emphasis on how expensive it is believed to be.

**Source:** Items have been partially adapted from the Marketing Scales Handbook (Bruner, 2009), Scale #106 Satisfaction, as developed by Adaval and Monroe (2002).

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
The price of this brand of sports shoes is high.					
In general, this brand of sports shoes is expensive.					
This brand of sports shoes usually hurts a lot to pay.					
This brand of sports shoes costs a lot.					

**Construct:** Attitude toward the brand

**Definition:** A consumer's opinion of a certain brand of product.

**Source:** Items have been partially adapted from the Marketing Scales Handbook (Bruner, 2009), Scale #170 Attitude toward the brand, as developed by Sengupta and Johar (2002).

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
Generally, New Balance Sports Shoe is a very good one.					
I have a positive opinion of the New Balance sports shoes brand.					
I like the brand of New Balance sports shoes.					
If a friend ask for my opinion about New Balance sports shoes, I'm likely to recommend it.					

## (3) Normative Beliefs

**Construct:** Peer influence

**Definition:** The extent to which a consumer's peers affect his/her purchasing decision choices.

**Source:** Items have been partially adapted from the Marketing Scales Handbook (Bruner, 2009), Scale #638 Susceptibility of Peer Influence, as developed by Bearden, Netermeyer, and Teel (1989).

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
When I go shopping, I'm more likely to buy the products my friends ever recommended.					
To make sure I buy the right product, I often observe what my friends are buying.					
I often ask for my friends' opinion before buying a product.					
It's important that my friends like the products I buy.					

**Construct:** Influence of athlete/celebrity endorsement

**Definition:** The degree to which a person expresses their concern of famous athletes' endorsement.

**Source:** Items have been partially adapted from Bend it like beckham: The influence of sports celebrities on young adult consumers. (Dix, Phau, & Pougnet, 2010)

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
The sports shoes that are endorsed by celebrities are always of high quality.					
I don't care about whether a sports shoes brand has a celebrity as its spokesperson. (R)					
When two pairs of shoes are of equal quality, I tend to buy the one that is endorsed by celebrities.					

**Construct:** Influence of salesperson

**Definition:** The degree to which a person expresses the tendency to seek information about products through salesperson and asking for their opinions.

**Source:** Items have been partially adapted from Bend it like Beckham: The influence of sports celebrities on young adult consumers (Dix, Phau, & Pougnet, 2010).

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
When I buy sports shoes, salesperson's opinion matters to me.					
To make sure I buy the right sports shoes, I often consult to the salesperson at store.					
I often ask for the salesperson's opinion before deciding to buy a pair of sports shoes..					
I don't care about salesperson's recommendation when purchasing sports shoes. (R)					

#### (4) Control Beliefs

**Construct:** Influence of Distribution Intensity

**Definition:** A consumer's perception of how many retail stores carry the focal brand in consumer's perception (Yoo, Donthu & Lee, 2000).

**Source:** Items have been partially adapted from An examination of selected marketing mix elements and brand equity (Yoo, Donthu & Lee, 2000).

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
More stores sell this brand of sports shoes, as compared to its competing brands.					
It's very easy to find to a store that sells this brand of sports shoes.					
Only a limited number of stores sell this brand of sports shoes. (R)					

**Construct:** Attitude toward Online Shopping

**Definition:** A consumer's tendency to feel certain levels of convenience when shopping online.

**Source:** All the items were developed by the researcher.

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
Online shopping is less troublesome than shopping in a real store.					
I can get what I want with less effort by shopping online than shopping in real stores.					
Shopping online enables me to do shopping anywhere, anytime.					
Shopping in real stores is more convenient than shopping online. (R)					

\*\*\*Variables Outside of the TPB

**Construct:** Value consciousness

**Definition:** The concern a consumer has for paying low prices contingent on some product quality expectations.

**Source:** Items have been partially adapted from the Marketing Scales Handbook (Bruner, 2009), Scale #674 Value consciousness, as developed by Lichtenstein, Netermeyer, and Burton (1990).

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
When purchasing a product, I always try to maximize the quality I get for the money I spent.					
When I buy products, I like to be sure that I am getting my money's worth.					
I always check the prices at the stores to be sure I get the best value for the money I spend.					
I am equally concerned with product prices and product qualities.					

**Construct:** Family communication pattern (concept-oriented)

**Definition:** The extent that parents encourage young generations to develop own consumption preferences.

**Source:** Items have been partially adapted from the Marketing Scales Handbook (Bruner, 2009), Scale #298 Value consciousness, as developed by Mangoburg, and Bristol (1998).

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
My parents let me decide what I should buy for myself					
My parents ask me about the styles I preferred before they bought things for me					
I discuss what I buy with my parents.					
I discuss where we could buy different products with my parents.					

**Construct:** Brand loyalty

**Definition:** A deeply held commitment to rebuy or repatronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior.

**Source:** Items have been partially adapted from An examination of selected marketing mix elements and brand equity (Yoo, Donthu & Lee, 2000).

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
This brand of sports shoes would be my first choice when I'm purchasing sports shoes.					
I will not buy other brands, if this brand of sports shoes is available at the store.					
I will still purchase this brand of sports shoes even if another brand is on sale.					
When purchasing sports shoes, I rarely switch from this brand.					

### **Single-Item Measures**

In addition to the multiple-item measures that were displayed above, the researcher also included single-item measures of several other predictors for college students' sports shoes purchasing, the relevant dependent variables, as well as demographic variables in the survey instrument. These variables include information sources of sports shoes, most concerned factors when purchasing sports shoes, participation in sports (frequency, types, places), sports shoes purchasing vendors, age, gender, ethnicity, year in school, major and monthly spending money. Although these items cannot be tested for reliability, they are equally important as the multiple-item measures to explore college students' likelihood to purchase a specific brand of athletic shoes. The single-item measures are shown on the following page.

**Variable:** Participation in Sports

**Definition:** The length of time an individual plays sports, or participates in physical fitness. The types of exercise an individual most often participates in.

How often do you participate in sports? (Please check one)

Never     Rarely     Sometimes     Frequently     Very Frequently

During a *normal week*, how many **hours** would you say you play sports?

(If **ZERO**, please write "0") \_\_\_\_ hours

What type of sports do you most often participate in? (Please check one)

Running     Ball Games     Swimming     Aerobic Exercise

Strength Training     Other \_\_\_\_\_

**Variable:** Product-related factors that influence sports shoes purchasing decision

**Definition:** The general product-related factors that influence an individual's purchasing decision of sports shoes.

When buying sports shoes, how often do you consider the following factors?

	Never	Rarely	Sometimes	Often	Very Often
Style/Fashion					
Comfort					
Price					
Brand					
Function					
Other factors that you often consider _____					

**Variable(s):** Sports Shoes Vendors

**Definition:** How often a person purchases sports shoes from a specific kind of vendor.

How often do you buy sports shoes from the following types of vendors?

	Never	Rarely	Sometimes	Frequently	Very Frequently
Specialty Sports Retailers					
Department Stores					
Mall Specialty Stores					
Internet Retailers					
Membership Club Stores					
Discount/Mass Merchants					
Other vendors that you usually buy sports shoes from _____					

**Variable(s):** Sports Shoes Information Sources

**Definition:** How often an individual gets information of sports shoes from a particular information source.

How often do you get information of sports shoes from the following sources?

	Never	Rarely	Sometimes	Frequently	Very Frequently
TVs					
Newspapers					
Magazines					
Internet					
Friends					
Stores					
Other sources that you usually get information of sports shoes _____					

**Variable:** Purchasing Sports Shoes

**Definition:** How often an individual purchases sports shoes.

How often do you purchase sports shoes in average? (Please check one)

Less than once a year     Once a year     Every 6 months

Every 3 months     Once a month     More than once a month

**Variable:** Purchasing a Specific Brand of Sports Shoes

**Definition:** How often an individual purchases a specific brand of sports shoes.

In the past year, how many times do you buy the following brands of sports shoes?

Adidas \_\_\_\_    New Balance \_\_\_\_    Nike \_\_\_\_    Puma \_\_\_\_    Skechers \_\_\_\_

(If **ZERO**, please write "0")

**Variable:** Likelihood to purchase a particular brand of sports shoes

**Definition:** A consumer's likelihood of purchasing sports shoes from the brand of (1) Adidas, (2) New Balance, (3) Nike, (4) Puma, (5) Skechers.

If you are going to buy a pair of sports shoes tomorrow, how likely are you buy the following brand of sports shoes?

	Very Unlikely	Somewhat Unlikely	Neither Likely Nor Unlikely	Somewhat Likely	Very Likely
Adidas					
New Balance					
Nike					
Puma					
Skechers					
Other brand of sports shoes you'd like to buy _____					

**Variable: Demographics****Age**

How old are you? \_\_\_\_\_

**Gender**

Are you male or female?   Male      Female

**Ethnicity**

Which of the following ethnic groups do you belong to?

Caucasian   African-American   Hispanic   Asian   Others

**Year in School**

Which of the following describes your current academic status? (Please check one)

Freshman   Sophomore   Junior   Senior   Graduate

Other \_\_\_\_\_

**Major**

What major are you in ? \_\_\_\_\_

**Monthly Spending money**

What's your average monthly spending money (the amount of money you can dispose after you pay for rent and food)?   \$\_\_\_\_\_

**Living Status**

Do you on-campus or off-campus?   On-campus      Off-campus

## **VI. Development of Survey**

After developing the single- and multiple-item measures according to the principles described in Table 1, the researcher used these measures to create a pre-test survey questionnaire. This section is an overview of the survey, showing the researcher's logic and strategies when developing the survey. Based on the Theory of Planned Behavior, this survey began with questions about general shopping beliefs and attitudes and then segues into specific questions about sports shoes purchasing and New Balance sports shoes. The purchase intention of different brands of sports shoes was asked before inquiring the respondents' basic demographic information. The pre-test questionnaire used for this project can be found in *Appendix A* at the end of this report.

### ***Introduction Section***

This survey, titled "Consumer Survey on Product Purchasing," began with a general introduction of the survey's main purpose: "to investigate college students' product purchasing behavior." This statement would prime the respondents for answering the following shopping related questions without disclosing the specific product and brand. Therefore, the respondents' answer to the general shopping questions would not be biased by the particular product or brand. Considering the multiple item measures for the same construct are somewhat repetitive in meaning, the statement "You may find some of the questions repetitive. Don't let that bother you since it is intentionally developed for the use of analysis." was included in the

introduction to relieve participants' concern proactively. In addition, all participants are thanked for taking the time to complete the survey and were assured that their responses would remain anonymous.

### ***Sections One***

In Section 1, as mentioned at beginning of this part, the respondents were asked to disclose their opinion on general beliefs and attitudes relevant to shopping, following the Theory of Planned Behavior. To prepare respondents for the first set of questions, the researcher uses the priming statement "This section will ask you about your product purchasing habits." Respondents are also instructed to "check only one" response choice. This section included 16 multiple item measures that measures four proposed constructs: Peer Influence on Shopping, Value Consciousness, Family Communication Pattern and Attitude toward Online Shopping. A five-point scale, "Strong Disagree," "Disagree," "Feel Neutral," "Agree," and "Strongly Agree" was given to measure the respondents' personal opinion on each statement. The scale was organized from negative option to positive option in order to reduce the order bias.

### ***Section Two***

Section two asks respondents about their sports shoes purchasing habits. The multiple item measures in this section belong to two proposed constructs: Influence of Salesperson and Influence of Celebrity Endorsement, measuring the influence of social agents on college students' sports shoes purchasing. The same five-point scale was given. In this section, the researcher also included single-item measures get respondents thinking about their purchasing habits of sports shoes. The respondents

were asked about how important a certain feature (Style/Fashion, Comfort, Price, Brand etc.) is when they purchase sports shoes and how often they get information about sports shoes from a certain source (TV, Newspapers, Magazines, Internet etc.).

### ***Section Three***

Section three asks respondents about their perception on a specific sports shoes brand. At the beginning, a priming question was asked: “What is your favorite brand of sports shoes that you can afford?” And then the respondents were asked to keep in mind the brand they just mentioned to answer the following questions in this section. Instead of giving the target brand, New Balance, the researcher required the respondents to come up with the brand by themselves. This question was designed for two reasons: first, although the constructs in this section measuring the influence of brands, it should be kept in a general way according to the literature; second, by thinking about the brand first, the respondents were primed to answer the following questions.

This section include 23 multiple item measures that can be categorized into six proposed constructs, which are Involvement with a Brand, Perceived Product Quality, Perception of Store Image, Attitude toward Product Price, Influence of Distribution Intensity and Brand Loyalty.

A single-item measure that asked the respondents’ frequency of purchasing sports shoes on average was also included in this section. Six ordinal options were given: “Less than once a year,” “Once a year,” “Every 6 months,” “Every 3 months,” “Once a month,” and “More than once a months.”

#### *Section Four*

Section four focused on the respondents' opinion on the target brand, New Balance. Given not all respondents had the experience of buying New Balance sports shoes or even heard about this brand. Two filter questions were designed in this section to ensure only those who know this brand or who bought sports shoes from this brand before would answer the corresponding questions. This is for the sake of avoiding the bias of assumed knowledge, which is the fact that respondents would give "answer" to the questions or issues they don't know.

At the beginning of this section, the respondents were asked the question "Have you ever heard of New Balance, the brand of sports shoes?" If the answer is "Yes", the respondents were then asked to answer the following questions in this section before the second filter question. Based on their perception of New Balance brand, the respondents would express their opinion on nine multiple item measures, which belong to two proposed constructs: Attitude toward the brand of New Balance and the Brand Awareness of New Balance.

If the answer to the first filter question is "No," the respondents were asked to go directly to the next section, Section 5. A clear instruction "Go directly to Section 5 (On the same page)" in a larger word size was given to help the respondents to better locate the questions they need to answer. This arrangement is necessary based on the researcher's past experience that respondents were confused by the filter questions.

Then the respondents were asked to express their opinion on their experience of buying and wearing New Balance sports shoes. Before those measures, the second

filter question was asked: “Have you ever purchased New Balance sports shoes?” If the answer to this question is “Yes,” the respondents were instructed to continue answering the following questions in this section, which are 7 multiple item measures that belong to two proposed constructs: Satisfaction of the New Balance sports shoes and Value of the New Balance sports shoes offer. If the answer to the second filter question is “No,” same as that for the first filter question, the respondents were asked to directly to the following section, Section 5.

### ***Section Five***

Section five only contains single item measures asking some additional questions relevant to the respondents’ sports shoes purchases, including the frequency of participating in sports, the time spent on playing sports per week, types of sports participated in a regular basis, the frequency of buying sports shoes from a specific brand and the likelihood to purchase a pair of sports shoes from a specific brand.

As for the questions asked the respondents’ come up with the frequencies, the researcher required the respondents to answer ZERO (“0”) instead of leaving a statement blank if they didn’t have the experience. This would help to eliminate any errors in coding, as leaving a statement blank could mean either zero or that the respondent overlooked or skipped the question.

### ***Section Six***

The final section of this survey instrument asked the respondents to provide basic demographic information. Since all respondents are college students, the researcher decided to only capture the variables age, gender, and academic status. In addition,

the living status (on-campus or off-campus) was also asked since it is a proposed factor that impacts the influence of social agents according to the literature (Yoh, 2001; Lachance Beaudoin & Robitaille, 2003; Yoh & Pitt, 2005; Hsu and Chang, 2008). This marked the completion of the survey. Having reviewed the layout of the survey instrument used for this project, which is shown in Appendix A, I will now discuss the qualitative and quantitative analyses of the multiple-item measures.

## VII. Analysis of Measures

Upon developing the survey, the researcher conducted two waves of measurement analysis: a qualitative evaluation by a research professional and a pre-test consisting of data collection from 102 student respondents.

### *Wave One: Qualitative Review*

A research professional with more than two decades of experience in the field of applied research methods and statistics evaluated the survey before it was administered to the Boston University student population. The reviewer noted problematic constructs, measures within the same construct that might have unique meaning instead of common meaning, and scale issues. After discussing these issues with the researcher, the researcher adjusted these measurement items accordingly before administering the survey.

The major revision to the measures according to the research professional's suggestion is the measures developed for the construct "Brand Awareness of New Balance." Originally, the researcher developed four measures which are the traditional measures found in the Marketing Scale Handbook (Bruner, 2009). Those measures are general statements asking the respondents evaluate their brand awareness to a specific brand by themselves. This process requires an extremely high self-awareness on this issue, which is not possessed by most of the respondents. Therefore, following the research professional's advice, the researcher found five specific characteristics of New Balance emphasized in its advertisements and developed five statements according to the five characteristics to measure the respondents' awareness of them.

Therefore, the abstract construct was broke down into five fact-based measures. By assembling the answer of the five measures, the research could get a more precise measurement of this constructs.

### ***Wave Two: Quantitative Pre-Test***

The pre-tests of the measurement instrument were conducted between the time period 6 p.m.-8 p.m. on March 22<sup>nd</sup>, 23<sup>rd</sup>, 24<sup>th</sup>, 25<sup>th</sup> and 26<sup>th</sup> in the Boston University George Sherman Union. A total of 118 questionnaires were sent out and received. After getting rid of those questionnaires that were not answered completely or seriously, finally the data from 102 surveys were used for the quantitative review for the proposed measures.

As soon as the data collection was done, the researcher assigned each questionnaire a unique identification number and developed a coding strategy for each variable that was measured. Five-point, Likert-type scales were assigned numerals 1 through 5, with 1 representing individuals on the lowest end of scales of agreement, frequency, and familiarity and 5 representing individuals on the highest end of such scales. The reversecoded measures, which are identified in the Development of Measures section, were initially entered using the same coding measures, but when data collection was complete, the researcher re-coded these measures in SPSS. Table 2 displays the samples of the coding rules for the variables found in the pre-test survey.

<b>Table 2: Coding Rules for the Variables</b>	
E.g. When I go shopping, I'm more likely to buy the products my friends have previously recommended.	Strongly Disagree: 1 Disagree: 2 Feel Neutral: 3 Agree: 4 Strongly Agree: 5
E.g. When you buy sports shoes, how important are the following things (e.g. Style/Fashion, Price) in your mind?	Very Unimportant: 1 Somewhat Unimportant: 2 Feel Neutral: 3 Somewhat Important: 4 Very Important: 5
E.g. How often do you get information about sports shoes from the following sources (e.g. TV, Newspapers)?	Never: 1 Rarely: 2 Sometimes: 3 Frequently: 4 Very Frequently: 5
E.g. If you are going to buy a pair of sports shoes tomorrow, how likely are you to buy it from each of the following brand (e.g. Nike, New Balance)?	Very Unlikely: 1 Somewhat Unlikely: 2 Neither Likely nor Unlikely: 3 Somewhat Likely: 4 Very Likely: 5
E.g. Are you male or female?	Male: 1 Female: 2
E.g. Which of the following ethnic groups do you belong to?	Caucasian: 1; African-American: 2; Hispanic: 3; Asian: 4; Others: 5
E.g. Which of the following describes your current academic status?	Freshman: 1; Sophomore: 2 Junior: 3; Senior: 4; Graduate: 5; Other: 6
E.g. Do you live on-campus or off-campus?	On-campus: 1 Off-campus: 2

Subsequently, the data was entered into SPSS. Then the data was cleaned by the following process. A frequency distribution was conducted to identify possible data entry errors and unreasonable outliers. Then the reversed measures were flipped in SPSS by recoding the variables. At this stage, the researcher determined that the data was ready for the analysis of the validity and reliability of the measurement items.

### *Assessment of Content Validity and Reliability*

To determine the validity of the measures (i.e., whether the measures measured what they were supposed to measure fully, accurately, and measure nothing else), the researcher conducted inter-item correlations and principal components factor analyses with Varimax rotations on all of the proposed multiple-item measures for this study. Prior to these assessments, the researcher ran frequency distributions of each measurement item of every respective indicator in order to determine if coding errors or outliers existed. The SPSS output for the frequency distributions is available in Appendix E of this report.

### **INTER-ITEM CORRELATIONS**

The researcher then computed inter-item correlation matrices for the variables found in each of the proposed constructs. The SPSS output for the inter-item correlation matrices is available in Appendix C of this report. The highlighted measures and/or constructs represent items that were red-flagged at this stage of analysis. After crosschecking these red flags with the items that initially violated the principles of measurement, the researcher removed most of these measures before the stage of principal components factor analysis. These individual inter-item correlation matrices assess whether the proposed item groupings are indeed measuring the same general idea or concept (i.e., reveal common meaning among the measures). The researcher ultimately found that generally all the 16 proposed predictors are reasonable. However, at this stage, the researcher raised red flags for several measures since their inter-item correlation coefficient is relatively low when compared to that of

other measures in the same group. These measures and its corresponding constructs are discussed in detail below.

For the proposed predictor “Peer influence,” one of the measures, “It’s important that my friends like the products I buy.” had a relatively low inter-item correlation coefficient with other measures in the same group. Therefore, the researcher raised a red flag for it at this stage.

**Table 3: Inter-Item Correlation of Peer Influence**

	When I go shopping, I’m more likely to buy the products my friends have previously recommended.	To make sure I buy the right product, I often observe what my friends are buying.	I often ask for my friends’ opinion before buying a product.	It’s important that my friends like the products I buy.
When I go shopping, I’m more likely to buy the products my friends have previously recommended.	1	.388**	.429**	.223*
	.000	.000	.000	.049
To make sure I buy the right product, I often observe what my friends are buying.	.388**	1	.275*	.001
	.000	.015	.015	.990
I often ask for my friends’ opinion before buying a product.	.429**	.275*	1	.290*
	.000	.015	.015	.010
It’s important that my friends like the products I buy.	.223*	.001	.290*	1
	.049	.990	.010	

For the proposed predictor “Family communication pattern,” one of the measures, “My parents let me decide what I should buy for myself.” had a relatively low inter-item correlation coefficient with other measures in the same group. Therefore, the researcher raised a red flag for it at this stage.

**Table 4: Inter-Item Correlation of Family Communication Pattern**

	My parents let me decide what I should buy for myself.	My parents ask me about the styles I prefer before they buy things for me.	I discuss what I buy with my parents.	I discuss where we could buy different products with my parents.
My parents let me decide what I should buy for myself.	1	.119	-.005	-.086
		.298	.963	.456
My parents ask me about the styles I prefer before they buy things for me.	.119	1	.302**	.281*
	.298		.007	.013
I discuss what I buy with my parents.	-.005	.302**	1	.641**
	.963	.007		.000
I discuss where we could buy different products with my parents.	-.086	.281*	.641**	1
	.456	.013	.000	

For the proposed predictor “Attitude toward online shopping,” one of the measures, “Shopping in real stores is more convenient than shopping online.” had a relatively low inter-item correlation coefficient when compared to the other three measures. Therefore, the researcher raised a red flag for it at this stage.

**Table 5: Inter-Item Correlation of Attitude toward Online Shopping**

	Online shopping is less troublesome than shopping in a real store.	I can get what I want with less effort by shopping online than shopping in real stores.	Shopping online enables me to buy things anywhere, anytime.	Shopping in real stores is more convenient than shopping online.
Online shopping is less troublesome than shopping in a real store.	1	.766**	.424**	.392**
		.000	.000	.000
I can get what I want with less effort by shopping online than shopping in real stores.	.766**	1	.560**	.377**
	.000		.000	.001
Shopping online enables me to buy things anywhere, anytime.	.424**	.560**	1	.197
	.000	.000		.083
Shopping in real stores is more convenient than shopping online.	.392**	.377**	.197	1
	.000	.001	.083	

For the proposed predictor “Attitude toward product price,” one of the measures, “This brand of sports shoes usually hurts a lot to pay.” had a relatively low inter-item correlation coefficient when compared to the other three measures. Therefore, the researcher raised a red flag for it at this stage.

**Table 6: Inter-Item Correlation of Attitude toward the Product Price**

	The price of this brand of sports shoes is high.	In general, this brand of sports shoes is expensive.	This brand of sports shoes usually hurts a lot to pay.	This brand of sports shoes costs a lot.
The price of this brand of sports shoes is high.	1	.635**	.125	.667**
		.000	.274	.000
In general, this brand of sports shoes is expensive.	.635**	1	.242*	.704**
	.000		.032	.000
This brand of sports shoes usually hurts a lot to pay.	.125	.242*	1	.433**
	.274	.032		.000
This brand of sports shoes costs a lot.	.667**	.704**	.433**	1
	.000	.000	.000	

For the proposed predictor “Brand loyalty,” one of the measures, “This brand of sports shoes would be my first choice when I’m buying sports shoes.” had a relatively low inter-item correlation coefficient when compared to the other three measures. Therefore, the researcher raised a red flag for it at this stage.

**Table 7: Inter-Item Correlation of Brand Loyalty**

	This brand of sports shoes would be my first choice when I'm buying sports shoes.	I will not buy other brands of sports shoes, if this brand is available at the store.	I will still purchase this brand of sports shoes even if another brand is on sale.	When purchasing sports shoes, I rarely switch from this brand.
This brand of sports shoes would be my first choice when I'm buying sports shoes.	1	.180	.266*	.382**
		.115	.018	.001
I will not buy other brands of sports shoes, if this brand is available at the store.	.180	1	.501**	.350**
	.115		.000	.002
I will still purchase this brand of sports shoes even if another brand is on sale.	.266*	.501**	1	.460**
	.018	.000		.000
When purchasing sports shoes, I rarely switch from this brand.	.382**	.350**	.460**	1
	.001	.002	.000	

### PRINCIPAL COMPONENTS FACTOR ANALYSIS

After analyzing the correlations between the indicators of each construct, the researcher then assessed these multiple-item measures with principal components factor analyses with Varimax rotation. Factor analysis was completed in three stages. In the first stage, each of the proposed constructs was assessed separately using unrotated principal components factor analysis, specifying that one factor should be extracted for each construct. In the second and third stages, 12 of the constructs deemed reasonable during the stage of inter-item correlations were divided into three separate groups. Due to the limitation of valid case numbers, the other four constructs cannot be put together with other constructs under one factor analysis. Therefore, the

researcher analyzed them at this stage separately.

The three major factor analyses which have four constructs in each, with the constructs comprising each, are represented in the table below. As for the construct “Attitude toward the brand of New Balance,” since there are only 62 valid answers for the corresponding questions, an individual factor analysis were conducted for it.

**Table 8: The Factor Analysis Groups**

Number of Factors	Factor Analysis #1	Factor Analysis #2	Factor Analysis #3	Factor Analysis #4
1	Peer influence	Value consciousness	Influence of celebrity endorsement	Attitude toward the brand of New Balance
2	Family communication pattern	Influence of sales person	Perception of store image	
3	Attitude toward online shopping	Involvement with the brand	Attitude toward product price	
4	Brand loyalty	Perceived product quality	Influence of distribution intensity	

These groupings were determined based on the following two criteria. First, the result of the aforementioned inter-item correlation test for all multiple-item measures and discerning common meaning between the items of one construct and those of a different construct. Second, the researcher avoided assigning the constructs that are related according to the relevant theories found in the literature review. Kirmani (1990) asserted that the construct “Brand loyalty” correlated with the construct “Perception of store image” significantly. Therefore, the researcher assigned these constructs to different factor analyses. The SPSS output for factor analysis can be found in Appendix D of this report.

For the two constructs “Satisfaction of New Balance sports shoes,” and “Value of New Balance sports shoes offer”, there are only 22 respondents answered the corresponding questions in the questionnaire since those questions can only be answered by people who bought New Balance sports shoes before. Since the valid sample size is too small, the total variance explained will be 100% by definition, which is not meaningful. Therefore, the research only referred to the factor loadings for these two constructs and ignored the value of total variance explained given by SPSS.

For the construct “Brand awareness of New Balance,” the measures were key facts of the brand of New Balance from different perspectives. Therefore, these measures were not real multiple item measures since they do not have very much overlap in meaning. Therefore, the validity and reliability of this construct cannot be test using the same process as that for other constructs.

In Factor Analysis #1, the researcher analyzed the four aforementioned constructs in a rotated factor analysis, specifying that four factors should be extracted. Two of the four constructs (Attitude toward online shopping & Brand loyalty) loaded well, which returned a total variance explained of 60.92% and 50.12% respectively (both greater than 50%). The constructs Peer influence and Family communication pattern showed problems in this stage of analysis with a total variance explained of 49.17% and 47.60%. The factor loadings for each measure were shown in the tables below.

**Table 9: Factor Loadings for Peer Influence**

	Component
	1
When I go shopping, I'm more likely to buy the products my friends have previously recommended.	.781
To make sure I buy the right product, I often observe what my friends are buying.	.618
I often ask for my friends' opinion before buying a product.	.799
It's important that my friends like the products I buy.	.580

**Table 10: Factor Loadings for Family Communication Pattern**

	Component
	1
My parents let me decide what I should buy for myself.	.065
My parents ask me about the styles I prefer before they buy things for me.	.633
I discuss what I buy with my parents.	.872
I discuss where we could buy different products with my parents.	.859

For the second stage of factor analysis, the researcher put the aforementioned constructs in one factor analysis. The total variance explained is 55.51%. The factor loadings for the measures are shown in the table below.

According to the distribution of factor loadings, the research raised red flags for the following three measures “It’s important that my friends like the products I buy” (Peer influence), “My parents let me decide what I should buy for myself” (Family communication pattern) and “Shopping in real stores is more convenient than shopping online” (Attitude toward online shopping).

**Table 11: Factor Loadings for the Four Constructs in Group #1**

	Component			
	1	2	3	4
When I go shopping, I'm more likely to buy the products my friends have previously recommended.	.325	.077	.766	.086
To make sure I buy the right product, I often observe what my friends are buying.	.127	-.276	.531	-.123
I often ask for my friends' opinion before buying a product.	-.042	-.007	.837	-.067
It's important that my friends like the products I buy.	-.250	.265	.530	.099
My parents let me decide what I should buy for myself.	.334	-.129	.222	.097
My parents ask me about the styles I prefer before they buy things for me.	.086	.062	.064	.613
I discuss what I buy with my parents.	.056	-.008	-.018	.851
I discuss where we could buy different products with my parents.	-.053	-.097	-.086	.838
Online shopping is less troublesome than shopping in a real store.	.858	.043	.033	-.041
I can get what I want with less effort by shopping online than shopping in real stores.	.894	.016	.005	-.011
Shopping online enables me to buy things anywhere, anytime.	.705	-.117	.233	.093
Shopping in real stores is more convenient than shopping online.	.494	-.097	-.251	.026
This brand of sports shoes would be my first choice when I'm buying sports shoes.	.051	.627	.014	.249
I will not buy other brands of sports shoes, if this brand is available at the store.	-.144	.638	-.035	.003
I will still purchase this brand of sports shoes even if another brand is on sale.	.089	.771	-.108	-.282
When purchasing sports shoes, I rarely switch from this brand.	-.169	.756	.132	-.056

Before conducting the third stage of factor analysis, the aforementioned three problematic variables within corresponding constructs were removed. The new factor loadings distributions for the measures are shown in the table below. The result improved dramatically and become acceptable at this stage.

**Table 12: Factor Loadings for the Four Constructs in Group #1 after Remove Two Variables**

	Component			
	1	2	3	4
When I go shopping, I'm more likely to buy the products my friends have previously recommended.	.352	.061	.099	.767
To make sure I buy the right product, I often observe what my friends are buying.	.125	-.280	-.120	.534
I often ask for my friends' opinion before buying a product.	.007	-.012	-.060	.832
It's important that my friends like the products I buy.	-.278	.269	.099	.587
My parents ask me about the styles I prefer before they buy things for me.	.083	.063	.611	.041
I discuss what I buy with my parents.	.032	-.014	.853	-.006
I discuss where we could buy different products with my parents.	-.061	-.106	.843	-.069
Online shopping is less troublesome than shopping in a real store.	.872	.013	-.022	.019
I can get what I want with less effort by shopping online than shopping in real stores.	.912	-.016	.008	-.013
Shopping online enables me to buy things anywhere, anytime.	.727	-.136	.102	.181
This brand of sports shoes would be my first choice when I'm buying sports shoes.	.094	.634	.243	-.052
I will not buy other brands of sports shoes, if this brand is available at the store.	-.147	.639	.004	-.003
I will still purchase this brand of sports shoes even if another brand is on sale.	.107	.765	-.275	-.087
When purchasing sports shoes, I rarely switch from this brand.	-.150	.763	-.058	.138

In Factor Analysis #2, same process of analysis was used. The researcher analyzed another four constructs in a rotated factor analysis, specifying that four factors should be extracted. Three of the four constructs (Value consciousness, Influence of sales person, Perceived product quality) loaded well, which returned a total variance explained of 57.59%, 63.88% and 69.10% respectively (all greater than 50%). The constructs "Involvement with the brand" showed problem in this stage of analysis with a total variance explained of 47.48%. The factor loadings for each

measure for this construct were shown in the tables below.

**Table 13: Factor Loadings for Involvement with the brand**

	Component	
	1	
Wearing this brand of sports shoes helps me express who I am.		.696
When I'm wearing this brand of sports shoes, others see me the way I want them to see me.		.734
My selection of this brand of sports shoes has nothing to do with my personality.		<b>.612</b>
Seeing somebody else wear this brand of sports shoes can tell me something about that person.		.709

For the second stage of factor analysis, the researcher put the aforementioned constructs in one factor analysis. The total variance explained is 61.78%. The factor loadings for the measures are shown in the table below. According to the distribution of factor loadings, the research did not identify problematic measures. Therefore, there is no need to conduct the factor analysis at the third stage.

**Table 14: Factor Loadings for the Four Constructs in Group #2**

	Component			
	1	2	3	4
When purchasing a product, I always try to maximize the quality I get for the money I spent.	.072	-.110	<b>.745</b>	-.085
When I buy products, I like to be sure that I am getting my money's worth.	.145	.063	<b>.721</b>	-.164
I always check the prices at the stores to be sure I get the best value for the money I spend.	.040	.048	<b>.763</b>	-.021
I am equally concerned with product prices and product qualities.	.052	.109	<b>.753</b>	.163
When I buy sports shoes, salespersons' opinion matters to me.	.058	<b>.800</b>	.163	-.036
To make sure I buy the right sports shoes, I often consult salespersons at the store.	.045	<b>.816</b>	-.099	.096
I often ask for the salespersons' opinion before deciding to buy a pair of sports shoes.	.179	<b>.854</b>	.023	-.077
I don't care about salespersons' recommendation when purchasing sports shoes.	-.258	<b>.746</b>	.032	-.010

Wearing this brand of sports shoes helps me express who I am.	.217	.103	.022	.709
When I'm wearing this brand of sports shoes, others see me the way I want them to see me.	.228	.005	-.067	.666
My selection of this brand of sports shoes has nothing to do with my personality.	-.039	-.151	-.032	.655
Seeing somebody else wear this brand of sports shoes can tell me something about that person.	-.160	.043	-.026	.730
This brand of sports shoes appears to be of high quality.	.778	.055	.135	.110
This brand of sports shoes is durable.	.864	-.004	.059	.033
This brand of sports shoes is reliable.	.828	-.020	.119	-.051
This brand of sports shoes is dependable.	.780	.018	.025	.110

In Factor Analysis #3, same process of analysis was used. The researcher analyzed another four constructs in a rotated factor analysis, specifying that four factors should be extracted. In terms of the total variance explained, all four constructs (Attitude toward product price, Influence of distribution intensity, Influence of celebrity endorsement, Perception of store image) loaded well, which returned a total variance explained of 60.65%, 64.04%, 55.86% and 58.77% respectively (all greater than 50%).

For the second stage of factor analysis, the researcher put the aforementioned constructs in one factor analysis. The total variance explained is 65.35%. The factor loadings for the measures are shown in the table below. According to the distribution of factor loadings, the research found only one problematic measure, which is “This brand of sports shoes usually hurts a lot to pay.” The factor loading for this construct is relatively lower than other measures within this construct. Therefore, the researcher raised a red flag here. Other than that measure, the overall factor loading distribution is acceptable. As a result, there is no need to conduct the factor analysis at the third

stage.

**Table 15: Factor Loadings for the Four Constructs in Group #3**

	Component			
	1	2	3	4
The sports shoes that are endorsed by celebrities are always of high quality.	.113	.020	.233	.782
I don't care about whether a sports shoes brand has a celebrity as its spokesperson.	-.276	.039	-.047	.660
When two pairs of shoes are of equal quality, I tend to buy the one that is endorsed by celebrities.	.049	.066	-.103	.801
The stores where I can buy this brand of sports shoes have a pleasant atmosphere.	.753	.110	.368	.053
The merchandise appeared organized in the stores where I can buy this brand of sports shoes.	.795	.025	.143	-.092
The stores where I can buy this brand of sports shoes are decent.	.659	.104	.029	-.168
The stores where I can buy this brand of sports shoes are trustworthy.	.727	.054	.118	.120
The price of this brand of sports shoes is high.	.315	.750	.235	-.009
In general, this brand of sports shoes is expensive.	.092	.819	.058	-.020
This brand of sports shoes usually hurts a lot to pay.	-.347	.524	-.007	.299
This brand of sports shoes costs a lot.	.074	.915	-.002	.049
More stores sell this brand of sports shoes, as compared to its competing brands.	.067	.076	.870	.190
It's very easy to find a store that sells this brand of sports shoes.	.315	.139	.768	.101
Only a limited number of stores sell this brand of sports shoes.	.154	.013	.708	-.322

As for the two constructs "Satisfaction of the product" and "Value of the offer," since the case number for them were only 22. Although the factor analysis for the two constructs were conducted, only factor loadings were used for evaluate the measures. The total variance explained was not been taken into consideration.

**Table 16: Factor Loadings for the Two Measures**

	Component	
	1	2
Owning New Balance sports shoes has been a good experience.	.002	.878
I'm satisfied with my decision to buy New Balance sports shoes.	.484	.777
My choice to buy New Balance sports shoes was a wise one.	.534	.623
If I could do it over again, I'd buy a different brand of sports shoes rather than New Balance.	.830	.253
New Balance sports shoes are a good value of money.	.463	.740
New Balance sports shoes are worth the price.	.790	.356
New Balance sports shoes are not a very good buy for the money.	.842	.112

According to Table 16, the research found that the factor loading distributions were not as what it supposed to be. The measure “If I could do it over again, I’d buy a different brand of sports shoes rather than New Balance” is more likely to belong to the construct “Value of New Balance sport shoes offer” than “Satisfaction of New Balance sports shoes.” The problematic measure shared less overlap in meaning with the other three measures within the same construct: The three statements are all fact-based, while the problematic one is hypothetical. Conceptually, these two constructs shared similarities in meaning. And the measure “If I could do it over again, I’d buy a different brand of sports shoes rather than New Balance” share more overlapped meaning with the measures in the construct “Value of New Balance sport shoes offer.” Therefore, the research decided to remove this measure from the construct “Satisfaction of New Balance sports shoes” and add it to the constructs “Value of New Balance sport shoes offer.”

Finally, Chronbach’s alpha was computed for each of the factors obtained. The computations of reliability coefficients for each construct are shown in Table 17.

**Table 17: Reliability Analysis of Constructs**

Item	Cronbach's Alpha if Item Deleted
<b>Peer Influence (Cronbach's Alpha = .634)</b>	
When I go shopping, I'm more likely to buy the products my friends have previously recommended.	.519
To make sure I buy the right product, I often observe what my friends are buying.	.625
I often ask for my friends' opinion before buying a product.	.458
It's important that my friends like the products I buy.	<b>.633</b>
<b>Family Communication Pattern (Cronbach's Alpha = .702)</b>	
My parents ask me about the styles I prefer before they buy things for me.	<b>.798</b>
I discuss what I buy with my parents.	.477
I discuss where we could buy different products with my parents.	.504
<b>Attitude toward online shopping (Cronbach's Alpha = .821)</b>	
Online shopping is less troublesome than shopping in a real store.	.728
I can get what I want with less effort by shopping online than shopping in real stores.	.626
Shopping online enables me to buy things anywhere, anytime.	<b>.866</b>
<b>Brand Loyalty (Cronbach's Alpha= .664)</b>	
This brand of sports shoes would be my first choice when I'm buying sports shoes.	.659
I will not buy other brands of sports shoes, if this brand is available at the store.	.643
I will still purchase this brand of sports shoes even if another brand is on sale.	.540
When purchasing sports shoes, I rarely switch from this brand.	.527
<b>Value Consciousness (Cronbach's Alpha= .751)</b>	
When purchasing a product, I always try to maximize the quality I get for the money I spent.	.704
When I buy products, I like to be sure that I am getting my money's worth.	.688
I always check the prices at the stores to be sure I get the best value for the money I spend.	.700
I am equally concerned with product prices and product qualities.	.681
<b>Influence of salesperson (Cronbach's Alpha= .810)</b>	
When I buy sports shoes, salespersons' opinion matters to me.	.763
To make sure I buy the right sports shoes, I often consult salespersons at the store.	.752
I often ask for the salespersons' opinion before deciding to buy a pair of sports shoes.	.716
I don't care about salespersons' recommendation when purchasing sports shoes.	.809
<b>Involvement with the brand (Cronbach's Alpha= .624)</b>	
Wearing this brand of sports shoes helps me express who I am.	.547
When I'm wearing this brand of sports shoes, others see me the way I want them to see me.	.521
My selection of this brand of sports shoes has nothing to do with my personality.	.602
Seeing somebody else wear this brand of sports shoes can tell me something about that person.	.545
<b>Perceived product quality (Cronbach's Alpha= .848)</b>	
This brand of sports shoes appears to be of high quality.	.823

This brand of sports shoes is durable.	.786
This brand of sports shoes is reliable.	.788
This brand of sports shoes is dependable.	.832
<b>Influence of celebrity endorsement (Cronbach's Alpha=.601)</b>	
The sports shoes that are endorsed by celebrities are always of high quality.	.554
I don't care about whether a sports shoes brand has a celebrity as its spokesperson.	.603
When two pairs of shoes are of equal quality, I tend to buy the one that is endorsed by celebrities.	.304
<b>Perception of store image (Cronbach's Alpha=.765)</b>	
The stores where I can buy this brand of sports shoes have a pleasant atmosphere.	.678
The merchandise appeared organized in the stores where I can buy this brand of sports shoes.	.675
The stores where I can buy this brand of sports shoes are decent.	.762
The stores where I can buy this brand of sports shoes are trustworthy.	.712
<b>Attitude toward product price (Cronbach's Alpha=.834)</b>	
The price of this brand of sports shoes is high.	.777
In general, this brand of sports shoes is expensive.	.795
This brand of sports shoes costs a lot.	.732
<b>Influence of distribution intensity (Cronbach's Alpha=.707)</b>	
More stores sell this brand of sports shoes, as compared to its competing brands.	.527
It's very easy to find a store that sells this brand of sports shoes.	.534
Only a limited number of stores sell this brand of sports shoes.	.776
<b>Attitude toward the brand of New Balance (Cronbach's Alpha=.890)</b>	
Generally, the brand of New Balance sports shoes is a very good one.	.845
I have a positive opinion of the New Balance sports shoes brand	.879
I like the brand of New Balance sports shoes.	.826
If a friend ask for my opinion about New Balance sports shoes, I'm likely to recommend it.	.880
<b>Satisfaction with the product (Cronbach's Alpha=.820)</b>	
Owning New Balance sports shoes has been a good experience.	.906
I'm satisfied with my decision to buy New Balance sports shoes.	.559
My choice to buy New Balance sports shoes was a wise one.	.729
<b>Value of the New Balance Sports Shoes Offer (Cronbach's Alpha=.822)</b>	
New Balance sports shoes are a good value of money.	.809
New Balance sports shoes are worth the price.	.779
New Balance sports shoes are not a very good buy for the money.	.751
If I could do it over again, I'd buy a different brand of sports shoes rather than New Balance.	.745

Four construct exhibited a good (Cronbach's alpha value between 0.60 and 0.69) level of reliability, four constructs exhibited very good (Cronbach's alpha value between 0.70 and 0.79) levels of reliability, and seven constructs exhibited excellent (Cronbach's alpha value greater than 0.80) levels of reliability. The highlighted

figures represent alphas whereby the deletion of that particular measure would increase the overall alpha of the construct. However, for the two constructs “Influence of celebrity endorsement,” “Attitude toward online shopping,” since the increments are rather marginal, they did not warrant the discarding of measures otherwise characterized as both valid and reliable.

### **VIII. Revisions to the Survey**

Using the qualitative and quantitative assessments of the multiple-item measures of the pre-test survey, the researcher can effectively revise the survey with better instructions and measures. The final version of this survey, which reflects the revisions detailed in the next few pages, can be found in Appendix D of this report. Based on the discoveries the researcher made during the stages of qualitative evaluation, inter-item correlations, factor analysis, and reliability, as discussed in the Analysis of Measures section, the following changes should be implemented:

1. The current measures that were red-flagged at either the initial stage of qualitative evaluations or inter-item correlations should be revised in order to increase common meaning with the other measures of their respective constructs.

2. Three of the constructs (i.e., Family communication pattern, Influence of distribution intense, Satisfaction with the product) retained only two measurement items after the stage of principal components factor analysis. Therefore, additional measures that have more common meaning with the remaining items of these constructs should be developed.

3. There is no big change for the proposed predictors. To refine the validity of the measurement, some measures need to be removed from the original groupings since they received red flags at several stages of the measurement validation process.

4. For the construct “Peer influence,” the measure “It’s important that my friends like the products I buy” should be removed.

5. For the construct “Family Communication Pattern,” the measure “My parents

ask me about the styles I prefer before they buy things for me” should be removed.

6. For the construct “Influence of Distribution Intensity,” the measure “Only a limited number of stores sell this brand of sports shoes” should be removed.

7. For the construct “Satisfaction with the product” the measures “Owning New Balance sports shoes has been a good experience” and “If I could do it over again, I’d buy a different brand of sports shoes rather than New Balance” should be removed.

8. For the construct “Value of the New Balance Sports Shoes Offer,” the measure “If I could do it over again, I’d buy a different brand of sports shoes rather than New Balance” should be added.

9. According to the feedback from the survey participants, the questionnaire is slightly long. Some of the single item measures (Especially those in Section 5 related to sports participation) are not necessary. Therefore, with the additions of these new measures, the researcher will also remove certain single-item measures to optimize the length of the survey. Also, analysis of these single-item measures is limited to basic analysis tools.

10. While the reliability coefficients of the reasonable measurement items were relatively high, this may in part be due to too recognizable a pattern of measurement items. Respondents may have picked up on answering the questions in the exact same way and have thus biased their responses. Therefore, the items in each section should be in a less discernable, more randomized pattern.

## **IX. Conclusions**

The implementation of this project, in terms of the qualitative and quantitative assessment of measurement items, has illustrated the inherent value in pre-testing a questionnaire prior to its distribution to a probability sample of the population. Through the quantification of measurement error, invalid and unreliable measures could be discernable and then either revised or removed from the questionnaire. This reduces any uncertainty that the measurement items chosen for this study will accurately assess consumers' purchasing behaviors.

This project also helped the researcher visualize how theoretical frameworks, in this particular case, the Theory of Planned Behavior (TPB), are implemented throughout the stages of developing the research design and validating measures. The alignment of the TPB within the actual measurement tool (i.e. the survey) allowed the researcher to address each stage of the TPB systematically through the predetermined constructs. Comprehensively, these constructs would adequately explain purchase intention and then subsequent consumer purchasing behaviors.

To implement a full-scale study of the factors influencing a college student's choice of sports shoes, New Balance would benefit by administering the revised version of the survey to a large, probability sample of students attending universities throughout the United States. It can provide valuable information that can help shape marketing techniques, product and brand imaging, and new product development, which would contribute to increasing revenue streams for New Balance Athletic Shoes, Inc.

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## **Appendix A: Initial Pre-Test Survey**

## Consumer Survey on Product Purchasing

I am conducting this study to investigate college students' product purchasing behavior. Thank you for taking the time to complete this survey. **You may find some of the questions repetitive. Don't let that bother you since it is intentionally developed for the use of analysis.** All responses will remain anonymous.

**SECTION 1: This section will ask about your product purchasing habits. Please mark the box corresponding to the answer choice that best describes your opinion on each statement (Please check only one).**

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
When I go shopping, I'm more likely to buy the products my friends have previously recommended.					
When purchasing a product, I always try to maximize the quality I get for the money I spent.					
My parents let me decide what I should buy for myself.					
To make sure I buy the right product, I often observe what my friends are buying.					
When I buy products, I like to be sure that I am getting my money's worth.					
My parents ask me about the styles I prefer before they buy things for me.					
I often ask for my friends' opinion before buying a product.					
I always check the prices at the stores to be sure I get the best value for the money I spend.					
I discuss what I buy with my parents.					
It's important that my friends like the products I buy.					
I am equally concerned with product prices and product qualities.					
I discuss where we could buy different products with my parents.					
Online shopping is less troublesome than shopping in a real store.					
I can get what I want with less effort by shopping online than shopping in real stores.					
Shopping online enables me to buy things anywhere, anytime.					
Shopping in real stores is more convenient than shopping online.					

**SECTION 2: The following questions will ask about your sports shoes purchasing habits.**

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
When I buy sports shoes, salespersons' opinion matters to me.					
The sports shoes that are endorsed by celebrities are always of high quality.					
To make sure I buy the right sports shoes, I often consult salespersons at the store.					
I don't care about whether a sports shoes brand has a celebrity as its spokesperson.					
I often ask for the salespersons' opinion before deciding to buy a pair of sports shoes.					
When two pairs of shoes are of equal quality, I tend to buy the one that is endorsed by celebrities.					
I don't care about salespersons' recommendation when purchasing sports shoes.					

**When you buy sports shoes, how important are the following things in your mind?**

	Very Important	Somewhat Important	Feel Neutral	Somewhat Unimportant	Very Unimportant
Style/Fashion					
Comfort					
Price					
Brand					
Function					
Other _____					

**How often do you get information about sports shoes from the following sources?**

	Never	Rarely	Sometimes	Frequently	Very Frequently
TV					
Newspapers					
Magazines					
Internet					
Friends					
Stores					
Other _____					

**SECTION 3: At the beginning of this section, I'd like you to answer the below question first:**

**What is your favorite brand of sports shoes that you can afford? \_\_\_\_\_**

<b>Please keep in mind the brand you mentioned above</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Feel Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
Wearing this brand of sports shoes helps me express who I am.					
This brand of sports shoes appears to be of high quality.					
The stores where I can buy this brand of sports shoes have a pleasant atmosphere.					
The price of this brand of sports shoes is high.					
More stores sell this brand of sports shoes, as compared to its competing brands.					
This brand of sports shoes would be my first choice when I'm buying sports shoes.					
When I'm wearing this brand of sports shoes, others see me the way I want them to see me.					
This brand of sports shoes is durable.					
The merchandise appeared organized in the stores where I can buy this brand of sports shoes.					
In general, this brand of sports shoes is expensive.					
It's very easy to find a store that sells this brand of sports shoes.					
I will not buy other brands of sports shoes, if this brand is available at the store.					
My selection of this brand of sports shoes has nothing to do with my personality.					
This brand of sports shoes is reliable.					
The stores where I can buy this brand of sports shoes are decent.					
This brand of sports shoes usually hurts a lot to pay.					
Only a limited number of stores sell this brand of sports shoes.					
I will still purchase this brand of sports shoes even if another brand is on sale.					
Seeing somebody else wear this brand of sports shoes can tell me something about that person.					

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
This brand of sports shoes is dependable.					
The stores where I can buy this brand of sports shoes are trustworthy.					
This brand of sports shoes costs a lot.					
When purchasing sports shoes, I rarely switch from this brand.					

**How often do you purchase sports shoes on average? (Please check one)**

- Less than once a year   
 Once a year   
 Every 6 months   
 Every 3 months  
 Once a month   
 More than once a month

**SECTION 4: This section is about the particular sports shoes brand – New Balance. At the beginning of this section, I'd like you to answer the below question first:**

Have you ever heard of New Balance, the brand of sports shoes?

Yes → **Continue**

No → **Go directly to Section 5 (At the end of Page 5)**

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
Generally, the brand of New Balance sports shoes is a very good one.					
In contrast to other brands of sports shoes, New Balance provides arch support.					
I have a positive opinion of the New Balance sports shoes brand					
In contrast to other brands of sports shoes, New Balance provides selection of shoe width.					
I like the brand of New Balance sports shoes.					
In contrast to other brands of sports shoes, New Balance doesn't have celebrity endorsers.					
If a friend ask for my opinion about New Balance sports shoes, I'm likely to recommend it.					
In contrast to other brands of sports shoes, some of the New Balance sports shoes are made in the U.S.A.					
In contrast to other brands, New Balance cares more about the fitness of feet.					

Have you ever purchased New Balance sports shoes?

Yes → **Continue**

No → **Go directly to Section 5 (On the same page)**

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
Owning New Balance sports shoes has been a good experience.					
New Balance sports shoes are a good value of money.					
I'm satisfied with my decision to buy New Balance sports shoes.					
New Balance sports shoes are worth the price.					
My choice to buy New Balance sports shoes was a wise one.					
New Balance sports shoes are not a very good buy for the money.					
If I could do it over again, I'd buy a different brand of sports shoes rather than New Balance.					

**SECTION 5:** In this section, you are going to answer some additional question about your sports shoe purchases.

- How often do you participate in sports? (Please check one)
 

Never     Rarely     Sometimes     Frequently     Very Frequently
- During a **normal week**, how many **hours** would you say you play sports? (If **ZERO**, please write "0") \_\_\_\_\_ hours
- What type of sports do you most often participate in? (Please check one)
 

Running     Ball Games     Swimming     Aerobic Exercise

Strength Training     Other
- In the past year, how many times do you buy the following brands of sports shoes?
 

Adidas \_\_\_\_\_ New Balance \_\_\_\_\_ Nike \_\_\_\_\_ Puma \_\_\_\_\_

Skechers \_\_\_\_\_ (If **ZERO**, please write "0")

5. If you are going to buy a pair of sports shoes tomorrow, how likely are you to buy it from each of the following brand?

	Very Unlikely	Somewhat Unlikely	Neither Likely Nor Unlikely	Somewhat Likely	Very Likely
Adidas					
New Balance					
Nike					
Puma					
Skechers					
Other _____					

**Section 6: Now please answer some questions on your basic**

**information.**

- How old are you? \_\_\_\_\_
- Are you male or female?  Male  Female
- Which of the following ethnic groups do you belong to? (Please check one)
   
 Caucasian  African-American  Hispanic  Asian 
 Others \_\_\_\_\_
- Which of the following describes your current academic status? (Please check one)
   
 Freshman  Sophomore  Junior  Senior 
 Graduate
   
 Other \_\_\_\_\_
- What's your average monthly spending money (the amount of money you have left after you pay for rent and food)? \$\_\_\_\_\_
- Do you live on-campus or off-campus?  On -campus  Off -campus

**You have now reached the end of the survey.**

**Thank you very much for your responses!**

## **Appendix B: Final Pre-Test Survey**

## Consumer Survey on Product Purchasing

I am conducting this study to investigate college students' product purchasing behavior. Thank you for taking the time to complete this survey. **You may find some of the questions repetitive. Don't let that bother you since it is intentionally developed for the use of analysis.** All responses will remain anonymous.

**SECTION 1: This section will ask about your product purchasing habits. Please mark the box corresponding to the answer choice that best describes your opinion on each statement (Please check only one).**

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
When I go shopping, I'm more likely to buy the products my friends have previously recommended.					
When purchasing a product, I always try to maximize the quality I get for the money I spent.					
My parents let me decide what I should buy for myself.					
To make sure I buy the right product, I often observe what my friends are buying.					
When I buy products, I like to be sure that I am getting my money's worth.					
I often ask for my friends' opinion before buying a product.					
I always check the prices at the stores to be sure I get the best value for the money I spend.					
I discuss what I buy with my parents.					
I am equally concerned with product prices and product qualities.					
I discuss where we could buy different products with my parents.					
Online shopping is less troublesome than shopping in a real store.					
I can get what I want with less effort by shopping online than shopping in real stores.					
Shopping online enables me to buy things anywhere, anytime.					
Shopping in real stores is more convenient than shopping online.					

**SECTION 2: The following questions will ask about your sports shoes purchasing**

**habits.**

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
When I buy sports shoes, salespersons' opinion matters to me.					
The sports shoes that are endorsed by celebrities are always of high quality.					
To make sure I buy the right sports shoes, I often consult salespersons at the store.					
I don't care about whether a sports shoes brand has a celebrity as its spokesperson.					
I often ask for the salespersons' opinion before deciding to buy a pair of sports shoes.					
When two pairs of shoes are of equal quality, I tend to buy the one that is endorsed by celebrities.					
I don't care about salespersons' recommendation when purchasing sports shoes.					

**When you buy sports shoes, how important are the following things in your mind?**

	Very Important	Somewhat Important	Feel Neutral	Somewhat Unimportant	Very Unimportant
Style/Fashion					
Comfort					
Price					
Brand					
Function					
Other_____					

**How often do you get information about sports shoes from the following sources?**

	Never	Rarely	Sometimes	Frequently	Very Frequently
TV					
Newspapers					
Magazines					
Internet					
Friends					
Stores					
Other_____					

**SECTION 3:** At the beginning of this section, I'd like you to answer the below question first:

**What is your favorite brand of sports shoes that you can afford? \_\_\_\_\_**

<b>Please keep in mind the brand you mentioned above</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Feel Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
Wearing this brand of sports shoes helps me express who I am.					
This brand of sports shoes appears to be of high quality.					
The stores where I can buy this brand of sports shoes have a pleasant atmosphere.					
The price of this brand of sports shoes is high.					
More stores sell this brand of sports shoes, as compared to its competing brands.					
This brand of sports shoes would be my first choice when I'm buying sports shoes.					
When I'm wearing this brand of sports shoes, others see me the way I want them to see me.					
This brand of sports shoes is durable.					
The merchandise appeared organized in the stores where I can buy this brand of sports shoes.					
In general, this brand of sports shoes is expensive.					
It's very easy to find a store that sells this brand of sports shoes.					
I will not buy other brands of sports shoes, if this brand is available at the store.					
My selection of this brand of sports shoes has nothing to do with my personality.					
This brand of sports shoes is reliable.					
The stores where I can buy this brand of sports shoes are decent.					
This brand of sports shoes usually hurts a lot to pay.					
I will still purchase this brand of sports shoes even if another brand is on sale.					
Seeing somebody else wear this brand of sports shoes can tell me something about that person.					

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
This brand of sports shoes is dependable.					
The stores where I can buy this brand of sports shoes are trustworthy.					
This brand of sports shoes costs a lot.					
When purchasing sports shoes, I rarely switch from this brand.					

**How often do you purchase sports shoes on average? (Please check one)**

- Less than once a year   
 Once a year   
 Every 6 months   
 Every 3 months  
 Once a month   
 More than once a month

**SECTION 4: This section is about the particular sports shoes brand – New Balance. At the beginning of this section, I'd like you to answer the below question first:**

Have you ever heard of New Balance, the brand of sports shoes?

Yes → **Continue**

No → **Go directly to Section 5( At the end of Page 5)**

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
Generally, the brand of New Balance sports shoes is a very good one.					
In contrast to other brands of sports shoes, New Balance provides arch support.					
I have a positive opinion of the New Balance sports shoes brand					
In contrast to other brands of sports shoes, New Balance provides selection of shoe width.					
I like the brand of New Balance sports shoes.					
In contrast to other brands of sports shoes, New Balance doesn't have celebrity endorsers.					
If a friend ask for my opinion about New Balance sports shoes, I'm likely to recommend it.					
In contrast to other brands of sports shoes, some of the New Balance sports shoes are made in the U.S.A.					

In contrast to other brands of sports shoes, New Balance cares more about the fitness of feet.					
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Have you ever purchased New Balance sports shoes?

Yes → **Continue**

No → **Go directly to Section 5 (On the same page)**

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
New Balance sports shoes are a good value of money.					
I'm satisfied with my decision to buy New Balance sports shoes.					
New Balance sports shoes are worth the price.					
My choice to buy New Balance sports shoes was a wise one.					
New Balance sports shoes are not a very good buy for the money.					
If I could do it over again, I'd buy a different brand of sports shoes rather than New Balance.					

**SECTION 5**: In this section, you are going to answer some additional question about your sports shoe purchases.

1. During a **normal week**, how many **hours** would you say you play sports? (If **ZERO**, please write "0") \_\_\_\_\_ hours

2. What type of sports do you most often participate in? (Please check one)

Running       Ball Games       Swimming       Aerobic

Exercise

Strength Training       Other

3. In the past year, how many times do you buy the following brands of sports shoes?

Adidas \_\_\_\_\_ New Balance \_\_\_\_\_ Nike \_\_\_\_\_ Puma \_\_\_\_\_

Skechers \_\_\_\_\_  
 (If **ZERO**, please write "0")

4. If you are going to buy a pair of sports shoes tomorrow, how likely are you to buy it from each of the following brand?

	Very Unlikely	Somewhat Unlikely	Neither Likely Nor Unlikely	Somewhat Likely	Very Likely
Adidas					
New Balance					
Nike					
Puma					
Skechers					
Other _____					

**Section 6: Now please answer some questions on your basic information.**

- How old are you? \_\_\_\_\_
- Are you male or female?  Male  Female
- Which of the following ethnic groups do you belong to? (Please check one)  
 Caucasian  African-American  Hispanic  Asian   
 Others
- Which of the following describes your current academic status? (Please check one)  
 Freshman  Sophomore  Junior  Senior   
 Graduate  
 Other \_\_\_\_\_
- What's your average monthly spending money (the amount of money you

have left after you pay for rent and food)? \$ \_\_\_\_\_

6. Do you live on-campus or off-campus?  On -campus  Off -campus

**You have now reached the end of the survey.**

**Thank you very much for your responses!**