

# **ASTROLOGY: ITS INFLUENCE ON CONSUMERS' BUYING PATTERNS AND CONSUMERS' EVALUATIONS OF PRODUCTS AND SERVICES**

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## **ABSTRACT**

The impact of astrological signs on personality traits has often been investigated in the area of psychology. Every person is born into a specific astrological sign (e.g., Aquarius, Taurus). However, the effect of astrological signs has not been systematically studied in the marketing literature. Here, we apply the notion of zodiac signs to explain a) consumers' general evaluations of products and services and b) consumers' buying patterns (i.e., impulsive buying and compulsive buying) as personality traits. Following a survey of 239 college student subjects, we find that odd (e.g., Aries, Gemini) and non-water (e.g., Leo, Virgo) signs are positively associated with consumers' impulsive buying tendencies. The results also suggest that consumers born under water signs (e.g., Cancer, Scorpio) are more likely to show favorable evaluations of services than are those with non-water signs. Implications and future research topics are also discussed.

## **INTRODUCTION**

The impact of personality traits on consumers' buying patterns has been frequently investigated in the marketing literature. In most studies, researchers find that personality traits are important antecedents for explaining both patterns of buying behavior and consumers' perceptions of firms' marketing activities. Examples of such studies include: personality traits (e.g., impulsiveness, compulsiveness, risk-taking propensity, need for cognition, the role of self) and buyer behavior (Aaker 1999; Faber et al. 1995; Mantel 1999; Rook and Fisher 1995; Zuckerman 1983) and personality traits and marketing efforts (e.g., branding strategy, products) (Chan & Misra, 1990; Fournier, 1998; Venkatraman, 1991).

Astrological symbolism (i.e., zodiac signs) is one potentially important personality trait that has not been studied in the marketing literature. In contrast, researchers in psychology and even in organizational behavior have been consistently interested in studying the relationship between zodiac signs and attached personality traits which has been called astrological "theories" of personality. Such theories specify the association between astrological signs and a variety of personality variables.

The purpose of the present study is to investigate the influence of astrological personality traits on consumer buying patterns (i.e., impulsive buying and compulsive buying) and on consumers' reaction to marketing activities (i.e., evaluations of product quality and service quality). Here, we adopt two traditional astrological classification methods: odd/even zodiac signs and water/non-water zodiac signs. A literature review is provided, along with four research questions, and a survey of consumers is conducted to explore our research themes.

## **LITERATURE REVIEW AND RESEARCH QUESTIONS**

### **Astrological Personality Traits**

Astrology is built around the idea that personality and destiny are unalterably predetermined by the position of the sun, moon, and planets at the moment of birth. That is, an individual's "sign" or "sun sign" is determined at the time of his/her birth by the position of the sun in the zodiac, a giant circle which encompasses the yearly path of the movement of the sun, moon and planets (Pellegrint, 1973). Since the western calendar is based on the laws of solar and lunar motion, the signs can be ascertained easily the birth dates. For example, all people born under the zodiac zone of Cancer (June 21 to July 20) are Aries whereas those born from July 21 to Aug 20 are under the sign of Leo.

Each of the zodiac signs is believed to be associated with a set of characteristics and to predetermine the characteristics of people born under certain astrological influence. Specific traits regarding an astrological sign assume that people born in any of the twelve signs inherently possess certain personality traits. That is, some traits are more salient with those born under one sign than in other signs. Jung (1961) contends that much apparently

random variation in human behavior is actually orderly and consistent due to certain basic differences in the ways people approach their life style. Jung's (1961) type theory assumes that individuals are born with preference for some functions over others. Although there is variability in defining the specific characteristics of zodiac signs among researchers, most studies in astrology have used two classification systems (i.e., odd/even and water/non-water zodiac signs) to understand the relationship between astrological signs and their attached personality traits.

**Odd vs. Even Zodiac Signs** Traditional astrology theory states that when certain zodiac signs are "strongly emphasized" in the birth chart, there will be a tendency toward extraversion or introversion. Mayo (1978) argues that astrological proposition that people born with the sun in an odd-numbered sign of the zodiac (i.e., Aries, Gemini, Leo, Libra, Sagittarius, Aquarius) show a tendency toward extraversion, whereas those born with the sun in an even-numbered sign (i.e., Taurus, Cancer, Virgo, Scorpio, Capricorn, Pisces) show tendency toward introversion. According to Eysenck and Nias (1982), the link of these positive signs with extroversion can be interpreted in terms of active, assertive, outgoing, dominant, and risk-taking personality traits using Eysenck's biological trait theory. Similarly, negative signs symbolize passive, self-repressive feminine qualities. Other personal traits that are associated water signs include sensitivity and moodiness.

**Water vs. Non-Water Zodiac Signs** Another area of astrology involves the relationship between a specific group of zodiac signs and the neuroticism factors. Collating the neuroticism trait with the astrologically linked personality traits, Mayo and Eysenck (1978) propose that people born with the sun, moon, or planets in the "water" signs of Cancer, Scorpio, or Pisces tend to be more sensitive and emotional than do people who have the bodies in other elemental signs. Using the Eysenck Personality Inventory (Eysenck & Eysenck, 1964), Mayo and Eysenck (1978) find that individuals born under water signs exhibit higher neuroticism scores than do individuals born under other signs.

Psychological personality influences the buying process. In the same way, traits that are astrological personality traits could influence buying patterns. Impulsive and compulsive buying are two examples that have been long associated with some psychological traits. Impulsive buyers are characterized as experiencing more of an acute loss of impulse control when shopping, whereas compulsive buyers suffer from chronic loss of impulse control that develops into a repetitive pattern distinguished by much more serious consequences (d'Astous, 1990; Faber & Christenson, 1996; Rook & Fisher, 1995). Impulsive buying is also viewed as a desire for specific items, while compulsive buyers often lose interest in items after the purchase.

Here we investigate the following research questions:

**R1:** What are the relationships between astrological personality traits associated with several zodiac signs (i.e., odd/even and water/non-water signs) and impulsive buying?

**R2:** What are the relationships between astrological personality traits associated with several zodiac signs (i.e., odd/even and water/non-water signs) and compulsive buying?

**R3:** What are the relationships between consumers' astrological personality traits (i.e., odd/even and water/non-water signs) and consumers' general evaluations of products?

**R4:** What are the relationships between consumers' astrological personality traits (i.e., odd/even and water/non-water signs) and consumers' general evaluations of services?

## METHOD

### Sample

Survey questionnaires were administered to a convenience sample of 253 undergraduates. Questions were designed to measure consumers' buying patterns (i.e., impulsive buying and compulsive buying) and to assess consumers' overall evaluations of products and services. In addition, respondents were asked to report their date of birth to identify their individual zodiac signs. There were 239 respondents (95%, 239/253) after eliminating incomplete survey responses. Our sample consists of 131 males (54.8%) and 108 females (45.2%)

### Measures

**Zodiac Signs** Subjects' zodiac signs were identified by both their date of birth and self-reported zodiac signs. The number of subjects in each zodiac sign ranges from 13 to 25. It is interesting to note that women are more likely to know their correct zodiac signs than are men ( $\chi^2 = 15.8, p < .05$ ). In other words, 14.2% (34/131) of our male subjects report wrong zodiac signs whereas only 2.9% (7/108) of female respondents incorrectly identified their zodiac signs.

There are almost equal number of odd and even zodiac signs: 118 (49.4%) and 121 (50.6%), respectively. Finally, 28.5% (68) of our respondents are identified as the water signs whereas there are 171 non-water-sign subjects (71.5%).

**Other Measures** For the assessment of consumers' impulsive buying tendencies, Rook and Fisher's (1995) eight-item scale which is Likert-type scale with seven points (strongly disagree/strongly agree) was employed. An item of the scale reads: "Sometimes I feel like buying things on the spur-of-the-moment." Compulsive buying behavior is one dimension of excessive and abnormal purchasing. In order to evaluate compulsive buying tendency, Faber and O'Guinn's (1992) seven-item Diagnostic Screener for Compulsive Buying was adopted. In assessing consumers' perceptions of the marketplace (i.e., product quality), Gaski and Etzel's (1986) index of consumer sentiment toward marketing was employed. Consumers' evaluations of another aspect of firms' marketing activity (i.e., service quality) was measured using the modified Gaski and Etzel's (1986) index of consumer sentiment toward marketing.

## RESULTS

A series of one way analyses of variance (ANOVA) is conducted to investigate the impact of consumers' astrological personality traits on purchasing patterns (i.e., impulsive buying and compulsive buying) and consumer perceptions of the marketplace (i.e., product quality and service quality).

Some evidences of the role of consumers' astrological personality traits are found in the subjects' buying behavior patterns (see Table 1). First, odd zodiac signs are more likely to engage in impulsive purchasing tendency than are even zodiac signs ( $F=4.40, p < .05$ ), whereas there is no relationship found between compulsive buying tendencies and odd/even astrological signs. Second, the results show that water/non-water zodiac signs do not contribute to consumers' compulsive buying tendencies. Consumers who belong to water zodiac signs are less likely to engage in impulsive purchasing than are those with non-water zodiac signs. Thus, our evidence indicates that zodiac signs can influence impulsive purchase behavior (R1) but not compulsive purchase (R2) as indicated by extant scales for measuring these syndromes.

Finally, the influence of consumers' zodiac signs on consumers' marketplace perceptions (i.e., product quality and service quality) are assessed. First, we find that neither odd/even zodiac signs nor water/non-water astrological signs play a significant role in consumers' evaluations of product qualities (see Table 3). Second, we find that odd/even zodiac signs do not influence consumers' general assessments of service qualities. However, the results suggest that there is significant relationship between consumers' water/non-water zodiac signs and their overall evaluation of perceived service quality ( $F=6.16, p < .05$ ). That is, consumers who were born in water-sign period are more likely to show favorable attitude toward firms' service qualities than are those born in non-water zodiac time. Thus, we find that zodiac signs do not influence overall evaluations of product quality (R3), but they do influence overall evaluations of service quality (R4).

## DISCUSSION

Astrology has received a considerable amount of interest in the psychology literature. Here, we explored four research questions that link the notion of astrological signs with consumer activities and perceptions in the marketplace. The results in the present paper suggest that consumers who were born under even zodiac signs and non-water zodiac signs are more likely to exhibit impulsive buying tendencies than are those born under even and water zodiac signs. We also find that consumers who were born under water signs are more likely to show favorable evaluations of firm's services than are those born under non-water signs.

We find some evidence to link astrology and marketplace perceptions. Here, we adopted only two zodiac classification methods (i.e., odd/even and water/non-water zodiac signs). Future research might want to employ

other classifications such as fire (i.e., Aries, Leo, Sagittarius), earth (i.e., Taurus, Virgo, Capricorn), and air (i.e., Gemini, Libra, Aquarius). Birth location and Chinese zodiac signs are also of interesting topics for future research. From a marketing perspectives, the role of zodiac signs in consumers' actual marketplace selections is worthy to investigate since firms have already implemented the use of zodiac signs in consumer market (e.g., Ford Taurus). In our study we investigated perceptions, but we used existing scales to assess consumer behavior patterns (e.g., compulsive and impulsive buying).

Some consumers believe in their zodiac signs and believe that astrology is a powerful, predictive method. Others don't believe at all in the predictive power of astrology. Here, we focus on the consumers' birth into an astrological sign. In future studies, it might be interesting to compare believers and non-believers. Does the marketplace behavior of these two groups vary in some systematic way? Is there a difference between believers in the Chinese system of astrology and believers in Western versions?

The present study is exploratory in nature. We take some initial steps toward illustrating the potential application of astrology to marketing. Astrology has a long and controversial history. Marketing is a relatively new applied social science. Thus, there are interesting areas of intersection (and conflict).

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**Table 1:**  
ANOVA Results for Odd/Even and Water/Non-Water Astrology Signs

Research Questions	Odd/Even Zodiac Signs			Water/Non-Water Zodiac Signs		
	<i>Odd</i> (n=118)	<i>Even</i> (n=121)	<b>F</b>	<i>Water</i> (n=68)	<i>Non-Water</i> (n=171)	<b>F</b>
<b>R1: Impulsive Buying</b> <sup>1</sup>	30.3 (9.5)	27.7 (9.8)	<b>4.40*</b>	27.0 (9.6)	29.7 (9.6)	<b>3.81*</b>
<b>R2: Compulsive Buying</b> <sup>2</sup>	13.6 <sup>a</sup> (6.7) <sup>b</sup>	13.3 (6.3)	.13	12.7 (5.8)	13.8 (6.8)	1.34
<b>R3: Evaluations for Products</b> <sup>3</sup>	9.4 (3.3)	8.8 (3.4)	1.74	8.8 (3.6)	9.2 (3.3)	1.01
<b>R4: Evaluations for Services</b> <sup>4</sup>	9.4 (3.2)	9.0 (3.2)	1.00	8.4 (3.2)	9.5 (3.2)	<b>6.16*</b>

Note: \* significant at  $p < .05$

<sup>a</sup> mean, <sup>b</sup> standard deviation

<sup>1</sup> scale range: 1 - 56, observed scale range: 8-56, the higher the more impulsive buying tendency

<sup>2</sup> scale range: 1 - 42, observed scale range: 5 - 35, the higher the more compulsive buying tendency

<sup>3</sup> scale range: 1 - 21, observed scale range: 3 - 21, the higher the more unfavorable evaluations of products

<sup>4</sup> scale range: 1 - 21, observed scale range: 3 - 20, the higher the more unfavorable evaluations of services