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Traits and Achievement Motive on  
Customer Orientation**

by

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# **On the Interactive Effect of Personality Traits and Achievement Motive on Customer Orientation**

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## Abstract

Past studies revealed that employee's customer orientation was positively and significantly correlated with her/his job performance as well as her/his customer's satisfaction. Subsequently studies were conducted to examine the determinants of customer orientation. These studies generally found three—conscientiousness, agreeableness, and emotional stability—of the big five personality traits significantly associated with customer orientation. No study has examined the effect of motives on customer orientation. Winter et al. (1998) showed that personality traits and TAT-measured implicit motives, conceptually distinct and empirically unrelated, interacted in predicting behavior. Inspired by the spirit of the paper but expanding its horizon, we simultaneously examine not only the individual effects of the big five personality traits and self-attributed explicit achievement motive—one of the four major motive constructs McClelland (1987) illustrated—on customer orientation, but also their interactive effects in the present study. As expected, conscientiousness and agreeableness are found positively and significantly correlated with customer orientation, but openness to experience does so unexpectedly. Predictably, extraversion alone is found not significantly correlated with customer orientation, and so is emotional stability, but the latter to the contrary to our hypothesis. Interactive effects between openness and achievement motive as well as that between extraversion and achievement motive also reach statistical significance on customer orientation as hypothesized. Implications of the results are discussed in a context of customer orientation and in a broader context of motive-trait debate.

## 1. Introduction

Since 1970's many national economies, especially those of the industrialized democracies have undergone a profound shift. National economies built upon manufacturing have been steadily replaced by those based on service. The Statistics Bureau at the Japanese Ministry of Internal Affairs and Communications reported that the proportion of the service sector in the United States started to climb from around 1970, and reached 76%<sup>4</sup> by 2003 in terms of the GDP. The Bureau also reported that other developed countries—Canada, France, Germany, Japan, and the United Kingdom for instance—showed similar trends and by 2003 had fairly large proportion of the service sector, respectively at 62%, 66%, 65%, 72%, and 67%.

According to Frei and McDaniel (1998, p. 1), “[c]ustomers of modern service-based organizations may often interact with dozens of employees, each providing a different service.” Such interaction in service entails employees’ customer orientation. In manufacturing the use of flexible computer-aided manufacturing systems has enabled the low unit costs of mass production processes to coexist with the flexibility of individual customization, and the employees marketing highly customizable products are required to have ongoing and direct communications with their clients. After those complex and customized products are delivered, the manufacturer is often expected to provide the necessary training or the technical support. Accordingly the concept of good customer orientation has received wide-spread acceptance as an integral part of good business practice in manufacturing as well.

In response to these shifts, studies on customer orientation started to appear in management, marketing, organizational behavior, and psychology literature in the early 80's. One of the first in marketing was by Saxe and Weitz (1982) in which they defined customer oriented selling and developed a measure of customer orientation of salespeople. Hogan et al. (1984) defined service orientation and developed its index.

With the development of customer orientation construct, researchers began

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<sup>4</sup> Their numbers are recorded according to the Japan Standard Industrial Classification Rev.11 March 2002.

examining the effect an employee's customer orientation on her/his job performance. Hogan et al. (1984) demonstrated that the aforementioned service orientation index was positively related to overall job performance as measured by their supervisors for 100 clerical personnel in a large insurance firm. Brown et al. (2002, p. 113) collected the data from "frontline employees and their supervisors working in restaurants ... in a mid-sized community dominated by a large university" and demonstrated that customer orientation was positively related to self- and supervisory ratings of performance.

On the other hand, a problem of "how a customer orientation influences perceived performance from a *customer's perspective*" was addressed by Brady and Cronin (2001, p. 241, emphasis in original). They demonstrated that, through several mediators such as overall service quality and customer satisfaction, customer orientation was positively influencing consumers' outcome behaviors as defined in Zeithaml et al. (1996) that included repurchase intentions, customer loyalty, and word-of-mouth intentions. Also from a customer's perspective, Susskind et al. (2003, p. 181) examined the connection between employees' and customers' perceptions of the service process using the sample of "line-level service workers employed in service-based facilities in the Midwest" and their customers. They showed that customer orientation was positively associated with customer satisfaction with the service in the organization.

Other studies on customer orientation were conducted from a marketing strategy perspective. For instance, Deshpandé et al. (1993, p. 23) found that "[b]usiness performance (relative profitability, relative size, relative growth rate, and relative share of market) was correlated positively with the customer's evaluation of the supplier's customer orientation."

Naturally, these studies demanded subsequent exploration for determinants of customer orientation because "identifying personal characteristics affecting customer oriented selling can help sales managers in the selection and training of new salespeople" (O'hara et al., 1991, p. 62). Frei and McDaniel (1998), Brown et al.

(2002) and others directed their attention to the relationship between personality traits and customer orientation. Frei and McDaniel (1998), using quantitative review method, found that customer service orientation was *individually* highly correlated with three—agreeableness, emotional stability, and conscientiousness—of the big five personality traits. We discuss these traits in the next section. Brown et al. (2002), through structural equation model, showed that, *in the presence of the other traits*, agreeableness and emotional stability were positively associated with customer orientation. In the present study, we thus formulate five separate hypotheses: only the three—agreeableness, emotional stability, and conscientiousness—of the big five but not the remaining two—extraversion and openness to experience—exhibit significantly positive effects on customer orientation when considered simultaneously.

There have been few studies examining the relationship between motives and customer orientation. One such study was Carraher et al. (1998). They showed that “the need to make a good impression” was positively related to service orientation, though “the need to make a good impression” does not directly correspond to any of the three widely accepted motive constructs—achievement, affiliation, and power—to be discussed in the next section. According to Spangler et al. (2004, p. 268) “[a]chievement motivated individuals” not only “set challenging goals for themselves, assume personal responsibility for goal accomplishment” but also “actively collect and use information for feedback purposes.” To do so, “achievement motivated individuals” must have a predisposition to meet customer needs in an on-the-job context. Hence we formulate the sixth hypothesis that achievement motive positively affects customer orientation, even in the presence of the big five personality traits. But these six hypotheses do not go far enough in our estimation.

On the personality characteristics, the concepts of trait and motive are said to have evolved within its own theoretical school and have rarely interacted against each other in a meaningful way. Winter et al. (1998, p. 231), however, argued that “motives and traits were conceived as different kinds of concepts that referred to different aspects of personality, and predicted different kinds of behavior.” Studying two separate

samples, Winter and others were “able to demonstrate the *replicated* interactions of motives and traits” (Winter et al. 1998 p. 238). Encouraged by this empirical finding, they claimed that “motive and trait concepts, when considered together, offer analyses and interpretations of behavior that are far more subtle and sophisticated than those that employ only one of the two concepts, or employ them separately” (Winter et al. 1998 p. 231). Inspired by this stimulating development in personal psychology, we entertain hypotheses that an employee’s customer orientation is influenced not only by his/her personality traits and achievement motive, but by their interactions as well.

The effects of variables other than the personality traits and the achievement motive were demonstrated on customer orientation by several researchers. O’hara et al. (1991) demonstrated that customer orientation was associated with customer oriented selling, and female salespeople tended to have better customer orientation. Kelly (1992, p. 27) demonstrated that “favorable perceptions of the organizational climate for service” and “higher levels of motivational direction and organizational commitment” had positive effects on customer orientation. Thakor and Joshi (2003, p. 584) showed that the salesperson’s “extent to which they experience their work as meaningful” (job satisfaction) had a positive impact on their customer orientation and that “their identification with the values of their organization” and “their satisfaction with the pay they receive” enhanced this impact. To the extent these variables are available to us, we incorporate them into our model as control variables.

In summary the purpose of the present study is to examine the effects of all five dimensions of personality traits, achievement motive, and their interactions on customer orientation, all simultaneously using a sample of cross-section of salespeople working for large Japanese corporations with needed control variables.

## **2. Literature Review on Customer Orientation, Traits, and Motives**

In this section, we first define customer orientation. We then briefly review trait-motive debate. This goes to show that many modern personality psychologists have at least implicitly made a place for both traits and motives. Studies of mediating and moder-

ating effect of trait or motive on customer orientation are reviewed here. Studies of the direct effect of trait or motive on customer orientation are reviewed in Introduction. Finally we clarify trait-motive distinction and the meaning of trait-motive interaction.

## **2.1. Customer Orientation**

As mentioned in Introduction, customer orientation construct was defined, developed and expanded by researchers in marketing such as Saxe and Weitz (1982) and Brown et al. (2002), as well as researchers in psychology such as Hogan et al. (1984), Frei and McDaniel (1998), and others. According to Saxe and Weitz (1982, p. 344), customer oriented selling “refers to the degree to which salespeople practice the marketing concept by trying to help their customers make purchase decisions that will satisfy customer needs.” Brown et al. (2002, p. 111, insertion added) defined “customer orientation as an employee’s tendency or predisposition to meet customer needs in an on-the-job context.” However, they expanded the definition considerably:

Furthermore, we propose that customer orientation in a service setting is composed of two dimensions. The needs dimension represents employee’s beliefs about their ability to satisfy customer needs and is based on Saxe and Weitz’s (1982) conceptualization of customer orientation. The enjoyment dimension represents the degree to which interacting with and serving customers is inherently enjoyable for an employee.

On the other hand, Hogan et al. (1984, p. 167) defined service orientation as “the disposition to be helpful, thoughtful, considerate, and cooperative” and it was “a set of attitudes and behaviors that affects the quality of the interaction between ... the staff of any organization and its customers.” This definition is not limited to the behavior domain of sales and is designed to be applicable in a broader context. Following Hogan et al. (1984) and Hogan and Hogan (1986), Frei and McDaniel

(1998, p. 3) developed service oriented inventories using “a multitrait approach to measure customer skills” and the inventories consisted of items in “the Adjustment, Likeability, and Prudence scales of the Hogan Personality Inventory (HPI).”

In this study, we define customer orientation as an employee’s tendency or predisposition to meet customer needs in an on-the-job context following Saxe and Weitz (1982) and Brown et al. (2002), but limit ourselves to the needs dimension as defined by Brown et al. (2002). We follow the definition of Saxe and Weitz (1982) and Brown et al. (2002) because we specifically focus on customer orientation of sales-people in the present study. We limit ourselves only to the need dimension because we do not believe even enthusiastic answers to enjoyment items<sup>5</sup> of Brown et al. (2002, p. 118) is sufficient to satisfy customer’s needs.

## **2.2. Trait-Motive Debate**

Trait-Motive debate was said to have originated in the theories of Allport (1937, 1961) and Murray (1938) when they both tried to develop a framework to identify fundamental elements of personality. It has been said that Allport (1961, p. 332) thought traits were fundamental as seen from the following passage: “[s]carecely anyone questions the existence of traits as the fundamental units of personality.” On the other hand, while conceding the existence of traits and motives, Murray (1938, p. 715) considered motives were central as seen from his writing: “[a]ccording to my prejudice, trait psychology is over-concerned with recurrences, with consistency, with what is clearly manifested (the surface of personality), with what is conscious, ordered and rational.” However, McClelland (1951, p. 214, emphasis in original, insertions added) noted on Allport’s trait that:

part of what [Allport] had in mind was what many other

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<sup>5</sup> Enjoyment items of Brown et al. (2002, pp.118) consist of “I find it easy to smile at each of my customers,” “I enjoy remembering my customer’s names,” “It comes naturally to have empathy for my customers,” “I enjoy responding quickly to my customer’s requests,” “I get satisfaction from making my customers happy,” and “I really enjoy serving my customers.”

theorists would call a *motive*. When he speaks of the "craving for social intercourse" or of the person "seeking to ally himself with groups of people" it is apparent that he intends to broaden the concept of trait to include what many psychologists refer to as motivation. If we return to our original definition of a trait as a concept which was devised primarily to account for the consistency in behavior and the stability in personality, it appears that Allport has stretched the term *trait* a little too far.

McClelland's (1951, p. 215, insertions added) own opinion was that "[c]ertainly we need two concepts [traits and motive]--one which will account for the consistencies and recurrences, and one which will account for the inconsistencies and sudden, irrational changes in behavior." Similarly many modern personality psychologists have made a place for both traits and motives to a different degree: In a 1994 *Psychological Inquiry* issue, for instance, Pervin (1994a, p. 110, insertions added) stated that "[motive concept] is different from the trait concept, not a substitute for it and certainly not to be replaced by it" and that "[i]f traits are defined in terms of overt behavior, then motives can have a complex relation to traits; that is, different motives can lead to the same behavior and the same motive can lead to different behaviors" (Pervin, 1994b, p. 176); Funder (1994, p. 126), referring to the article by Pervin quoted above, maintained: "Murray, McClelland, Wiggins, and Pervin are all correct to insist that patterns of behavior and motivations for behavior must be kept distinct."

### **2.3. Five Factor Model**

Traits as usually defined are collection of consistent behaviors that can be classified through correlation studies and factor analyses of questionnaire items or adjectives that reveal individual's typical behaviors, though there seem to be variations of this definition: Goldberg (1981, 1990) defined traits as expressions people use to describe

others; Buss and Craik (1983) defined them as a frequency of certain acts; McCrae and Costa (1996) regarded them as basic tendencies; James and Rentsch (2003, p. 229) referred traits as “a disposition to behave in a relatively consistent manner over time and across situations.”

The scientific task of constructing personality taxonomy was originally based on the lexical hypothesis that the individual differences that are most salient and socially relevant are encoded into the natural language. As such, it was presumed that the taxonomy of personality traits should reveal itself by factor analyses of a large number of the trait-descriptive adjectives in a natural language. Cattell (1946) was the first researcher to tackle the problem and found sixteen primary factors. In Fiske (1949), and later in Tupes and Christal (1961), they found that the five-factor explained well the data including those used by Cattell himself. Norman (1963) established the base model that is now widely used, and the expression—the “Norman’s Big Five” or the “Big Five” of extraversion, emotional stability, agreeableness, conscientiousness, and culture—have been commonly used in the literature. Goldberg’s (McCrae and Costa’s) terminology for them are surgency (extraversion), agreeableness, conscientiousness, emotional stability (neuroticism) and openness (intellect).

Digman (1991, p. 430) described that “the five-factor model is robust, not only across different studies and languages in the rating field, but across languages and different inventories as well.” As a result authors such as Walsh (2004, p. 142, emphasis in original) concluded that “[t]he five-factor model represents a widely recognized system for describing the basic dimensions of normal personality” and they are “most often labeled *extraversion*, *agreeableness*, *conscientiousness*, *neuroticism*, and *openness to experience*,” though Harlow and Cantor (1994, p. 131), emphasizing the limited applicability of the five factor model (the FFM), claimed “the FFM can only tell us about the degree to which a person changes or remains the same over time but not how, why, or to what end.”

McCrae and Costa (1985, 1987), Barrick and Mount (1991), Barrick et al. (1993) and others characterize these traits as follows: extraversion includes the traits

of being sociable, gregarious, assertive, talkative, and active; agreeableness has traits of being courteous, flexible, good-natured, cooperative, and trusting; a conscientious person is dependable, careful, thorough, responsible, organized, planful, and achievement oriented; an emotionally stable person scores low in such negative emotions as being anxious, depressed, angry, embarrassed, and emotional; openness to experience has traits, such as imaginative, cultured, curious, broad-minded, and artistically sensitive.

With the increasing confidence in the robustness of the five factor model, researchers started to use the model to explain and predict human behaviors in work environment and for personnel selection studies. One of influential studies is by Barrick and Mount (1991), in which they investigated the relation of the big five to three job performance criteria (job proficiency, training proficiency, and personnel data) for five occupational groups (professionals, police, managers, sales, and skilled/semi-skilled). One of the important findings was that conscientiousness was significantly and positively related to all three job performance criteria for all tested occupational groups. Salgado (1997) and Vinchur et al. (1998), in their empirical studies, each obtained results consistent with that by Barrick and Mount (1991) for the trait of conscientiousness. Mount et al. (1998, pp. 155, 158) demonstrated through the meta-analysis on eleven studies that “[c]onscientiousness, [a]greeableness, and [e]motional [s]tability were related to overall performance in jobs involving interactions with others when the criterion is supervisor ratings of performance.” Hurtz and Donovan (2000, pp. 875-876), through meta-analyses of total of 26 studies in scientific journals as well as in conference programs, obtained “results ... highly consistent with the original work of Barrick and Mount (1991), in that Conscientiousness was again found to have the highest validity of the Big Five dimensions for overall job performance,” though they conceded that “our analyses suggest that the validities of the Big Five, including Conscientiousness, tend to be low to moderate in magnitude.”

A new line of research emerged following Barrick and Mount (1991). They modeled mediating variables between the personality traits and job performance cri-

teria. For example, Barrick et al. (1993, p. 715) demonstrated that “sales representatives high in conscientiousness are more likely to set goals and are more likely to be committed to goals, which in turn associated with greater sales volume and higher supervisory ratings of job performance.” Barrick et al. (2002, p. 43) demonstrated that “striving for status and accomplishment mediate the effects of Extraversion and Conscientiousness on ratings of sales performance.” We will return to this article towards the end of Discussion section.

Brown et al. (2002, pp. 115-116) found that “[c]onscientiousness is directly related (without mediation) to both self-rated and supervisory-rated performance,” but that customer orientation mediated the relationship between emotional instability or agreeableness and self-rating of job performance: “emotional instability of service workers reduces customer orientation, whereas agreeability ... raise[s] customer orientation” and “worker’s degree of customer orientation, or disposition to meet customer’s needs” is highly correlated with self-rated job performance.

In one of the moderator analyses, Stewart (1996, p. 619) revealed that “extraversion and sales reward structure had a significant interaction for both the customer retention ... and the new sales ... dimensions of performance,” while “conscientiousness and compensation structure did not have a significant interaction for predicting either customer retention or new sales.”

Possibly a first study on interactions among the Big Five traits in predicting performance, Witt et al. (2002, p. 164) hypothesized that “certain personality traits may interact with others to result in desirable, as well as undesirable, work behavior”, and demonstrated that “among the highly conscientious workers, those low in agreeableness were found to receive lower ratings of job performance than workers high in agreeableness.”

As the studies introduced here and others indicate, the Five Factor Model or the big five has been used to predict many aspects of behaviors in work environment. Following this research stream, we use the big five, and try to reveal the relationship between the big five and customer orientation.

## 2.4. Motives

Motives describe individual's conscious or unconscious aspirations to produce certain desirable state of affairs. James and Rentsch (2003, p. 233) described that "[m]otives explain why some individuals approach demanding tasks while others avoid these tasks."

Following Freudian and Hullian traditions, some authors argue that motives are acquired unconsciously and not easily accessible to awareness and have to be measured by indirect means. Thus Morgan and Murray (1935) created Thematic Apperception Test (henceforth, TAT) as a systematic but indirect ways to measure such unconscious motives. In the test, subjects are asked to make up stories to a series of ambiguous pictures. McClelland et al. (1953) defined objective scoring systems for TAT story contents. According to McClelland (1965, p. 391, insertions added), achievement motive measured by TAT "appears ... that n[eed for] Ach[ievement] must be valid in the sense of the predicting life outcomes over periods of 10 years."

Many modern researchers, on the other hand, assume that people can accurately describe or self-report their own motives. Obviously such motives can be examined through questionnaire or interview. It has been shown, however, that "[m]easures of the same motive obtained in these two ways seldom correlate significantly with each other" (McClelland et al. 1989, p. 690), and armed with additional analyses, this finding persuaded McClelland and his associates to conclude that "[m]easures of the same motive obtained in these two ways ... relate to different classes of behavior" and that "implicit motive, generally sustain spontaneous behavioral trends over time ... whereas the self-attributed motives predict immediate responses to structured situations."

On the research on motives, Lawler (1994, p. 20) summarized:

Recent work on motivation has produced two somewhat different approaches." Researchers in one group have focused on establishing one or two human motives that they consid-

ered to be particularly important. Thus McClelland has focused on the achievement motive ... Other researchers have tried to develop need, or motive, classification systems in an attempt to predict which kinds of outcomes will be attractive to people. Murray's (1938) list of needs and Maslow's (1943) statement of a need hierarchy are examples of this approach.

On the classification system, Lawler (1994, p. 33) described that "[n]umerous lists and classifications of needs have been presented by psychologists." Although Murray's (1938) list of more than 20 social needs is very influential, Lawler maintained that "it has not been applied very much to the study of motivation in organizations, probably because its length greatly reduces its usefulness" and that "Maslow's hierarchical classification of needs in five categories has been by far the most widely used classification system in the study of motivation in organizations." Maslow's (1943, 1954, 1970) hierarchical classification of needs consist of physiological needs, safety needs, belongingness and love needs, esteem needs, and the need for self-actualization in decreasing order of importance. This means that a person's physiological needs must be satisfied before safety needs become important, but once the physiological needs are met, their prominence decreases and the safety needs become the most significant motivator of behavior. This process repeats itself until the need for self-actualization becomes central.

Though classified as one of the first group of researchers by Lawler (1994, p. 20), McClelland in a book titled *Human Motivation* (1987) identified four major motive systems: achievement, power, affiliation, and avoidance. He focused on the first three and examined the extent of their effects on behavior. McClelland defined achievement motive as a desire to achieve a standard of excellence or as a desire to be successful in competitive situations. Spangler et al. (2004, pp. 268-269) described that individuals with high affiliative motivation were "concerned about establishing, maintaining, and re-establishing close personal relationships with others," while individuals with

high power motivation enjoyed “asserting social influence, being persuasive, drawing attention to themselves, and having an impact on their immediate environment including the people with whom they interact.” On the completeness of the three—achievement, power, affiliation—motives, Winter (1996, pp. 122-125, 157-158) maintained these three formed the fundamental dimensions underlying Murray’s list.

Power and affiliation motives have been used, as some traits have been, to predict behaviors in work environment. McClelland and Boyatzis (1982, p. 737, insertions added) found in their longitudinal sample of entry-level managers at the AT&T that “the leadership motive pattern (moderate-to-high n[eed for] Power, low n[eed for] Affiliation, and high Activity Inhibition) was significantly associated with managerial success after 8 and 16 years for nontechnical managers.” Harrell and Stahl (1984, p. 241) showed using the sample of “[s]eventy-seven of the 89 professionals at an office of a large international CPA firm” that “for partners and managers, need for affiliation correlated negatively with job satisfaction” but that “for partners and managers, junior-level of audit/tax specialists and junior-level of management consultants, need for power correlated positively with job satisfaction.”

McClelland was particularly fascinated with achievement motive. Our interest in customer orientation of salespeople compels us to focus on achievement motive as well. This is because, as McClelland and Boyatzis (1982, p. 738, insertions added) put it, “n[eed for] Achievement leads to a success ... in sales-in which the key people do most of the work themselves” and because “[p]eople with high n[eed for] Achievement are primarily interested in how well they personally are doing.”

Achievement motives have been employed to predict behaviors in work environment. McClelland and Boyatzis (1982, p. 742, insertion added) found that, on achievement measured by TAT, “[h]igh n[eed for] Achievement was associated with managerial success at lower levels of non-technical management jobs, in which promotion depends more on individual contributions than it does at higher levels,” however “at higher levels, in which promotion depends on demonstrated ability to manage others, a high in n[eed for] Achievement is not associated with success.”

Harrell and Stahl (1984, p. 241) found that, measured by self-attributed achievement motive through the Job Choice Exercise they developed, “[n]eed for achievement correlated positively with hours devoted to work for junior-level of audit/tax specialists, and with the firm’s work performance ratings for partners and managers and junior-level audit/tax specialists.” Jenkins (1987, pp. 922, 925) studied a longitudinal sample of 117 women “who were seniors at a large Midwestern state university in 1967” and who responded in 1981 to a mailed questionnaire and a mailed version of the imaginative sentence cue measure given in 1967 and demonstrated that “achievement motivation predicts women’s career outcomes when their values and work situations, along with sex-differentiated occupational structures, are considered.”

As a moderator analysis of achievement motive, Steers (1975, pp. 392, 395, 400, insertions added) found, with “a sample of first-level supervisors under a formalized goal-setting program” working for “a large west coast public utility,” that need for achievement exerted a significant [moderating] influence on the relationship between an employee’s task-goal attributes and his or her performance.”

Oliver (1974, p. 279) seems to be the first to examine the interactive effect of motives. He examined the effect because of “the advantage of considering configurations of personality variables rather than investigating only the isolated variables.” Analysis of two samples of 250 and 257 female college students found significant interaction between achievement and affiliation motives for the career-oriented and homemaking-oriented women. Specifically differences between the career- and homemaking-oriented women could not be attributed to intelligence, but rather to high achievement/low affiliation motive interaction as opposed to low achievement/high affiliation motive interaction.

We have argued that people with high achievement motive are primarily interested in how well they are doing personally and that salespeople tend to be the ones who do most of the work themselves. Thus, of the three—achievement, affiliation, and power—motives, we direct our attention to the effect of achievement motive on customer orientation as our subjects are salespeople working for large Japanese

corporations. Since more than 95 percent of them have their assigned sales target according to White Paper on Small and Medium Enterprises in Japan (2005), it is reasonable to characterize their work environment as well *structured* that requires immediate responses. Note also that customer orientation we are concerned with in the present study is mainly a choice behavior to a specific situation. McClelland et al. (1989, p. 391) asserted that “self-attributed motives predict immediate specific situations or choice behavior.”<sup>6</sup> Consequently we believe that the relationship to customer orientation need to be examined through *self-attributed achievement motive*.

## 2.5. Trait-motive distinction

In Trait-Motive Debate subsection, we introduced a working consensus that motive concept is different from the trait concept. Following up on the consensus, we first expound and clarify trait-motive distinction where the distinction seems murkiest in our context.<sup>7</sup> That is, we address the following question: What could be more obvious than that “conscientious” individuals, who are dependable, careful, thorough, responsible, organized, and achievement-oriented, must want to be “achievement-motivated”? In other words, does being conscientious imply being achievement-motivated?

Take, for instance, one of the seven conscientiousness item from the forty measures we extracted from McCrae and Costa’s (1985) eighty bipolar adjective scales on the basis of the results of their factor analytic study: “I make thorough preparations,” or “I put efforts into ensuring that I do not neglect anything.” Conscientious individuals agree with these items because they appeal to their need to do things methodically and purposefully, and to stick to the task that has been undertaken and staying within one’s norms. As Fiske (1994, insertions added) wrote, “[conscien-

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<sup>6</sup> Conversely, McClelland et al. (1989, pp.391) claimed that “implicit motives predict spontaneous behavioral trends over time.”

<sup>7</sup> Although in the section that follows we hypothesize interactions between openness to experience, extraversion, agreeableness, emotional stability, and achievement motive, distinctions between these traits and achievement motive are evident and we will not expound on such distinctions. See Winter et al. (1998, pp.234-235) for distinction between extraversion and affiliation motive, another instance where the distinction between trait and motive is murky.

tiousness] may well be a kind of self-monitoring.” Some achievement-motivated individuals under certain circumstances may agree with these items, because “thorough preparations” or “not neglecting anything” on your part present an opportunity for being positively regarded by his/her colleagues or supervisors as intelligent and reliable. However, conscientious individuals can be compulsive perfectionists and can incur risk of being regarded as stuffy and boring. As a result, some achievement-motivated individuals may choose to regard these conscientiousness-related items irrelevant or support them reluctantly and unenthusiastically at best. At the same time, corporate world are rife of examples of individuals who would like to achieve, but lack the necessary conscientiousness trait to be successful or worse to be taken seriously. Thus we should not necessarily expect a consistent relationship between the achievement motive and responses to these conscientiousness measuring items.

If traits and motives are distinct, however, then how can we conceptualize their relationship and their interaction? Simply put, motives provide goals and relevant traits provide the resources to attain those goals. Take achievement motive, for instance. It reflects the importance an individual places on her/his achievement relative to other individuals’. Conscientiousness, on the other hand, is a style or a pattern of doing things methodically and purposefully. So it is perfectly conceivable that individuals endowed with this trait pursue power rather than achievement as dictated by her/his strong power motive. Winter (1998, pp. 238) succinctly summarized: “traits answer the question “how?”, motives answer the question “why?”, and both concepts address the question “what?”

Partly heeding the warning that “motive theorists should not underestimate the heuristic value of a hierarchical structural model that provides a way to classify and organize the units of personality” (John and Robins, 1994, p. 138) and partly acknowledging the recommendation that “[t]he FFM provides such a model for personality trait concepts,” (John and Robins, 1994, p. 138), but mostly inspired by the spirit of the study by Winter et al. (1998) that examines the interactive effect of a personality and a TAT-measured implicit motive on volunteer work and on impact career, we try to

uncover the effects of the big five personality traits, self-attributed explicit achievement motive, and their interaction on customer orientation simultaneously in this study.

### **3. Hypotheses and Proposed Model**

In Introduction, we find some pieces of evidence that agreeableness, emotional stability, and conscientiousness of the big five personality traits affect customer orientation. We also find there that achievement motive is likely to affect customer oriented behavior based on the study by Spangler et al. (2004). In the present study, we would first like to examine the effects of all big five traits and achievement motive on customer orientation simultaneously. We call this base model. See Figure 1. Next, we add one interaction term between a personality trait and achievement motive to the base model, and examine these effects on customer orientation. We then increase the number of interaction terms to two, three, until the model is no longer estimable. By interaction, what we mean is the term between one of the personality traits and achievement motive, and not between the personality traits. See Figure 2 for models with one interaction term.

#### **Hypotheses**

Openness to experience has traits, such as imaginative, cultured, curious, broad-minded, and artistically sensitive. Salesperson endowed with openness to experience trait is without doubt imaginative and curious and, as a result, s/he is more likely to be aware of the problems and needs her/his customers have. However, there is no reason to believe that s/he is necessarily inclined or compelled to answer their problems and to fulfill their needs. If, on the other hand, achievement motive is in place at the same time, a cultured and broad-minded salesperson is likely to be compelled to broaden her/his realm and to offer solutions to her/his customers' problems and fulfill their needs. In short, openness to experience alone does not give a salesperson a predisposition to satisfy customer needs, but it does so in the presence of achievement motive. Therefore:

**Hypothesis 1: Openness to experience does not have an effect on customer orientation.**

**Hypothesis 7: The interactive effect of openness to experience and achievement motive is positively related to customer orientation.**

Since conscientiousness individual is dependable, responsible, achievement-oriented, and hardworking, highly conscientious salesperson is more likely to establish the relationship of mutual trust with her/his customers, to understand her/his customers' problems and needs, and to answer her/his customers' problems or satisfy their needs in a responsible manner.

Some achievement-motivated salespeople under certain circumstances may agree with our conscientiousness items such as "Others would describe me as organized," or "When I attempt to do something, I pay attention to details," because being organized or paying attention to details gives them an opportunity for establishing a good working relationship with their customers. However, the competitive work environment of our study subjects was well *structured* and required immediate responses. As such, many result-driven salespeople facing a competitive situation in our sample may have found that being organized or methodical were hardly sufficient to bring about such relationship to fruition. They could regard these items irrelevant because their sales experiences taught them that (a) quickness, rather than being organized, in responding to your customers changing needs was far more important, or that (b) a product competitive in terms of price, quality, after-service, or the service at a point-of-sale, went a long way towards closing a deal. Therefore:

**Hypothesis 2: Conscientiousness is positively related to customer orientation**

**Hypothesis 8: The interactive effect of conscientiousness and achievement motive is not related to customer orientation.**

Extraverts are sociable, gregarious, assertive, talkative, and active. According to Brown et al. (2002. p. 112, insertions added), "[service workers who are high in

introversion] may not enjoy customers or want to work with them long enough to identify and satisfy their needs.” Accordingly they formed a hypothesis that “[i]ntraversion will exert a negative influence on customer orientation.” We agree with their hypothesis or its contraposition: positive influence on customer orientation will be exerted by extraversion. Question is if extraversion alone will be sufficient, or achievement motive must be there at the same time, to answer customers’ problems or satisfying customers’ needs. In Stewart (1996, pp. 623-624) he found that “extraversion was positively associated with higher performance only on dimensions that were explicitly rewarded.” This is consistent with theory of extraversion by Gray (1973) which predicted reward sensitivity as a key difference between extraverts and introverts. Only extraverts with achievement motive can regard their own achievement rewarding. It seems therefore that being sociable, gregarious, assertive, talkative, and active, all of which are helpful in dealing with customers face to face in a less structured and relaxed situation, may not have been sufficient, and extraversion may not necessarily have been correlated with salesperson’s predisposition to meet customer needs in an on-the-job context. Customer orientation might have been the result of extraversion and achievement motive. Therefore:

**Hypothesis 3: Extraversion does not have an effect on customer orientation.**

**Hypothesis 9: The interactive effect of extraversion and achievement motive is positively related to customer orientation.**

Agreeableness has traits of being courteous, flexible, good-natured, cooperative, and trusting. Brown et al. (2002, p. 112) stated that “employees high in agreeability may naturally feel an empathy with their customers and possess a desire to solve their problems through the service they provide.” Since agreeable individuals are flexible, they may be more likely to respond to their customers as occasion demands, or they may be predisposed to meet customer needs in an on-the-job context. Therefore:

**Hypothesis 4: Agreeableness has positive effect on customer orientation.**

Individuals low in emotional stability are anxious, depressed, angry, and emotional. Brown et al. (2002, p. 112) described that “[e]motional instability may result in a fluctuating desire to serve customers and meet their needs,” and “[t]he inconsistency of emotion may be associated with weakened ability and/or motivation to serve customers well”. On the other hand, Mount et al. (1998, p. 151) described that “[s]ervice employees scoring high on Emotional Stability are likely to be more relaxed and tolerant of stress, which helps them to build credibility and trust with clients.” Therefore:

**Hypothesis 5: Emotional stability has positive effect on customer orientation.**

As quoted in Introduction, achievement motivated individuals “set challenging goals for themselves, assume personal responsibility for goal accomplishment, persist in the pursuit of goals, take calculated risks to achieve goals, and actively collect and use information for feedback purposes” (Spangler et al. 2003, pp. 268-269). Not only to meet his/her short-term sales target, but to retain her/his customers in the long run, a salesperson needs to keep her/his customers happy. Salespeople high in achievement motive are more likely to think one step further as to how they can answer her/his customers’ problems and to satisfy their needs. To do so, they need to gather information not only on their products or services and on their competitors, but from their customers for feedback purposes and use the piece of information to better serve the customer. Therefore:

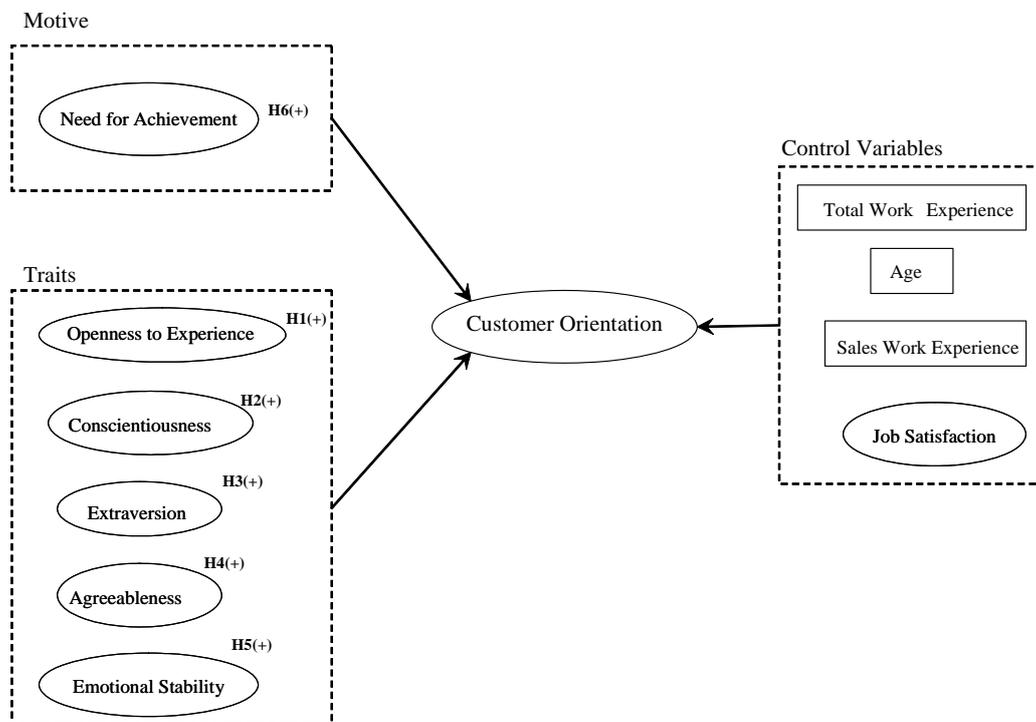
**Hypothesis 6: Need for achievement is positively related to customer orientation**

#### **Exploratory research:**

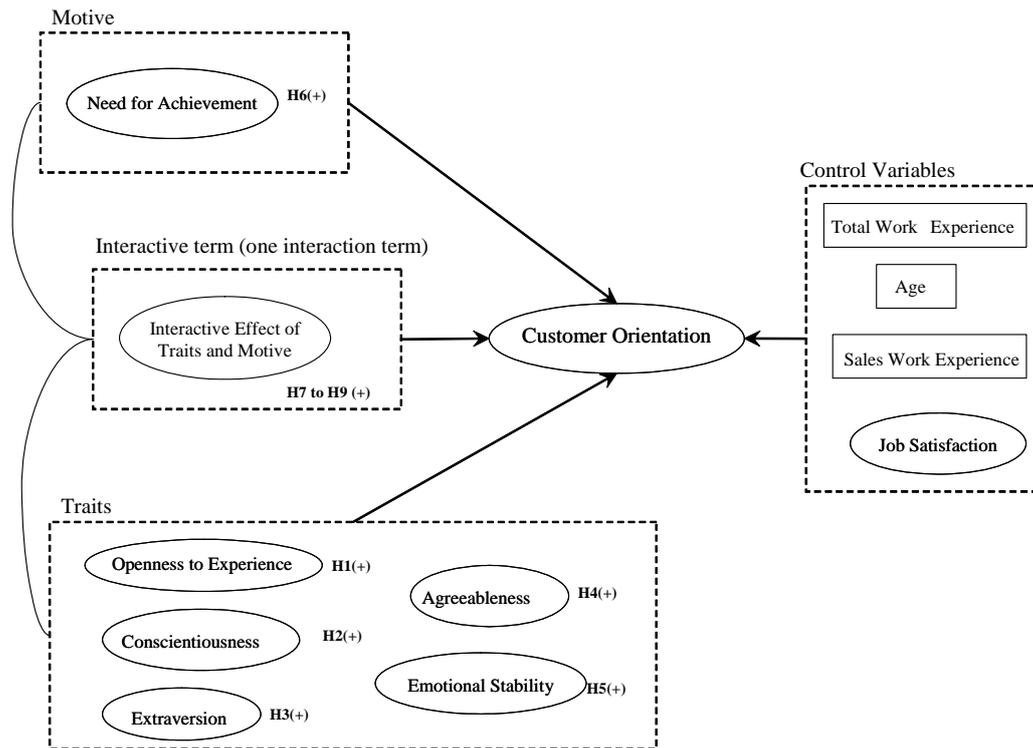
Since it is hard to conceive how achievement motive acts with the remaining two dimensions of personality traits (agreeableness and emotional stability) on customer orientation, we do not make hypotheses on how their interactive effects will be. Nevertheless, as exploratory research, we examine their interactive effects on customer orientation.

## Control variables

O'hara et al. (1991) found a significant effect of gender and job tenure on customer orientation. Thakor and Joshi (2005) not only controlled these two variables, but age and total sales experience. In addition, if the job itself bring a sense of accomplishment to salespeople, they may be more likely to work harder because “[s]alespeople will be motivated to expend the additional effort that is required by customer-oriented selling if they believe that they will experience a feeling of accomplishment from this activity” as in Thakor and Joshi (2005, p. 586). As explained in Literature Review section, they demonstrated that job satisfaction (experienced meaningfulness in their terminology) has positive and significant effect on customer orientation. Following these studies, we control job tenure (total work experience), age, total sales experience, and job satisfaction. Since, we have to use only the sample of male respondents due to the limited number of female respondents; we do not include gender as a control variable.



**Figure 1. Base model**



**Figure 2. Proposed structural equation models with one interaction term**

## 4. Method

### 4.1. Sample Characteristics

Our sample consists of cross-section of salespeople working for large Japanese corporations. Questionnaires designed for this study were distributed to the subjects through the personnel manager of the company. In order to ensure that their responses were kept confidential, we requested the respondents mail the survey directly back to us in a pre-stamped and pre-addressed envelop.

There were 671 responses, and we deleted cases if they had missing values in the variables we used in this analysis. Since there were only 64 female respondents, we chose to analyze the responses from men. After the list-wise deletion, the total number of sample was reduced to 459, and the respondents were distributed among such business as electrical equipment ( $N=82$ ), equipment for transport ( $N=77$ ), precision mechanical equipment ( $N=63$ ), ceramics ( $N=56$ ), commercial trade ( $N=37$ ), machinery ( $N=35$ ), metal ( $N=16$ ), pulp ( $N=4$ ), iron and steel ( $N=2$ ), and others ( $N=87$ ).

## **4.2. Measurement**

To assess the level of the big five personality factors, we extracted forty measures from McCrae and Costa's (1985) eighty bipolar adjective scales on the basis of the results of their factor analytic study. Eight factors for openness to experience were selected. For conscientiousness and emotional stability, seven trait descriptors were selected. Nine factors were selected to represent extraversion and agreeableness. Then we converted those bipolar adjective scales into five-point Likert scales, ranging from strongly disagree (coded as 1) to strongly agree (coded as 5). In order to measure the subjects' stable personality traits, the subjects were instructed to rate the question items according to how each was descriptive of aspect of their personality that they believed was relatively stable over time and relatively consistent across many different situation. As for achievement motive and customer orientation, we used 5 point scale from strongly disagree (coded as 1) to strongly agree (coded as 5). Five-point scale ranging from strongly dissatisfied (coded as 1) to totally satisfied (coded as 5) were used to measure job satisfaction.

### **Openness to Experience**

Sample items used to measure openness to experience are 'I can see things from different perspective', and 'I like an environment in which I can exercise my creativity'. All items are shown in Questionnaire Items of Appendix.

### **Conscientiousness**

Conscientiousness is measured using items such as 'I am diligent', and 'I tend to think systematically.' All items are shown in Questionnaire Items of Appendix.

### **Extraversion**

In order to measure extraversion, we use sample items such as 'I am often

said to be active', and 'I like social functions such as parties very much.' All items are shown in Questionnaire Items of Appendix.

## **Agreeableness**

We measure agreeableness using sample items such as 'I like to help others', and 'I am often said to be good-natured'. All items are shown in Questionnaire Items of Appendix.

## **Emotional Stability**

Emotional stability is measured using items such as 'I often feel pity for myself', and 'People often describe me as nervous.' These reversed items are all converted to normal items. All items are shown in Questionnaire Items of Appendix.

## **Achievement Motive**

Eight items are developed based on the Personality Research Form (henceforth, PRF)—one of the inventories formed to describe Murray's (1938) list of needs—personality scales to measure achievement motive. Sample measurement items include 'I make twice as much effort as others to raise my status,' and 'I make effort to accomplish more than others.' All items are shown in Questionnaire Items of Appendix.

## **Customer Orientation**

Customer Orientation is measured based on the items Saxe and Weitz's (1982) created and subsequently modified by Brown et al. (2002). These items were tested in Sunohara and Watanabe (2006).

Our item "I try to look at things from my customers' point of view" and "I try to make efforts to deepen my understanding of the problems my customers have" generally correspond to "I try to help customers achieve their goals" and "I get customers

to talk about their service needs with me” by Brown et al. (2002, p. 118) respectively, and so does our item “I make myself aware what I have to do to benefit my customers” to “I keep the best interests of the customers in mind” by Brown et al. (2002, p. 118). Similarly, our item “my sales activities are organized around the principle that they should benefit my customers” broadly correspond to “I achieve my own goals by satisfying customers” by Brown et al. (2002, p. 118).

Item corresponding to ours “I try to establish the relationship of mutual trust with my customers” contrast with the item “I take a problem-solving approach with my customers” in Brown et al. (2002, p. 118), reflecting the cultural differences between Japan and the U.S.: In Japan offering a solution to a problem without relationship of mutual trust is likely to be perceived too hasty and business-like, while this approach is likely to sound reasonable to Americans. We do not have an item corresponding to Brown et al.’s (2002) “I am able to answer a customer’s questions correctly.” This is because we presume that almost all the highly-educated and well-trained salespeople employed in large Japanese corporation we analyze in this article should be able to answer such questions affirmatively, so asking such questions seems odd or even insulting. All items are listed again in Questionnaire Items of Appendix.

## **Job Satisfaction**

Job satisfaction is measured using five items selected from Thakor and Joshi (2005). Sample items are ‘I can make full use of my abilities in my job’, and ‘I feel accomplished on my job’. All items are shown in Questionnaire Items of Appendix.

## **Age**

The sample range of the age is from 23 to 60, and we discretize them: 1 for those under 25 years, 2 for those from 25 to 34 years, 3 for those from 35 years to 44 years, 4 for those from 45 years to 54 years, and 5 for those 55 years and over following Thakor and Joshi (2005).

## **Total Work Experience**

The sample range of total work experience at their companies is from 1 to 41 years, and we discretize them following Thakor and Joshi (2005): 1 for those working less than a year, 2 for those working at least 1 years up to 5 years, 3 for those working at least 6 years up to 10 years, 4 for those working at least 11 up to 15 years, and 5 for those working at least 16 years.

## **Sales Work Experience**

The range of sales work experience is from 1 to 35 years, and we discretized them following Thakor and Joshi (2005): 1 for those who have sales experience of less than a year, 2 with sales experience of at least 1 years up to 5 years, 3 with sales experience of at least 6 years up to 10 years, 4 with sales experience of at least 11 up to 15 years, and 5 with sales experience of at least 16 years.

### **4.3. Statistical method**

We test base model to Model 3.10 by using the structural equation model with latent variable using Mplus 3.1.1. We simultaneously estimate parameters for the measurement models as well as for the structural equation models by maximum likelihood (ML) under the assumption that a set of manifest variables forms the multivariate normal samples, and the distance between adjacent points on each of the variable scales is equal.

Since there are interaction terms in our model, nonlinear structural equation model is used. Although it enables us to model interactions, the overall fit statistics are not yet developed. See Muthen (2004). So we compare adjacent nested model using loglikelihood difference chi-square tests or information criterion such as AIC. If a model with an interaction term increases log-likelihood significantly relative to the model without, we conclude that the interaction improves the model. Similarly if a

model with an interaction term has smaller AIC than the model without, we conclude that the interaction model fits the sample better.

## 5.Results

### 5.1. Pre-analytic procedure

Before analyzing data, we calculate descriptive statistics, coefficient alphas for all of latent variable, and correlations between all variables. These results are shown in Table 1 below. Since all the coefficient alphas are more than 0.70, each of the latent variables is judged to be measured appropriately by the corresponding measurement items.

**Table 1. Descriptive Statistics**

Variables	# of Item	$\alpha$	Means (S.D)	Range max min	Correlations															
					1	2	3	4	5	6	7	8	9							
1 Openness	8	0.842	27.24 (4.13)	40 16																
2 Conscientiousness	7	0.825	22.43 (3.9)	32 10	0.415 ***															
3 Extraversion	9	0.867	30.79 (4.91)	45 14	0.562 ***	0.348 ***														
4 Agreeableness	9	0.733	30.92 (3.81)	44 20	0.361 ***	0.436 ***	0.661 ***													
5 Emotional Stability	7	0.785	21.48 (3.97)	33 8	0.198 ***	0.179 **	0.333 ***	0.394 ***												
6 Need for Achievement	8	0.887	26.81 (4.66)	40 9	0.308 ***	0.444 ***	0.389 ***	0.284 ***	0.113 *											
7 Customer Orientation	5	0.755	19.01 (2.17)	25 12	0.502 ***	0.517 ***	0.496 ***	0.585 ***	0.263 ***	0.313 ***										
8 Job Satisfaction	5	0.701	17.75 (2.43)	25 8	0.439 ***	0.418 ***	0.499 ***	0.415 ***	0.238 ***	0.437 ***	0.469 ***									
9 Age	1		2.86 (0.85)	5 1	-0.025	-0.008	-0.033	-0.033	0.061	-0.120 **	-0.015	0.036								
10 Sales Work Experience	1		3.48 (1.16)	5 1	0.070	0.220 ***	0.030	0.042	0.025	0.197 ***	0.091	0.151 *	0.630 ***							

Note: \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

### 5.2. Results of Model

All measurement models for any one of the structural equation models were accepted at 0.1 percent significance. This supports the validity of their corresponding items. Simultaneously we estimate the parameters of structural equation models. Table 2 shows the results of structural equation model with one interaction term. Table 3 shows the results of the model with two interaction terms. The estimated results for the model with three interaction terms are shown in Table 4. Models with more than three interaction terms are not estimable due to the limited sample size of 459. In the first round of analyses, we estimate models with total work experience as

one of the control variables and this control variable, it turns out, show no statistical significance. In the final round of analyses, therefore, we estimate models that do not include total work experience as a control covariate following the idea of parsimony.

### 5.2.1. The estimated results

We first examine the estimation result for the base model in Table 2: three dimensions of the personality traits—openness to experience ( $\hat{\beta} = 0.322, t = 3.376, p < 0.001$ ), conscientiousness ( $\hat{\beta} = 0.308, t = 3.233, p < 0.01$ ), and agreeableness ( $\hat{\beta} = 0.501, t = 3.922, p < 0.001$ )—reach statistical significance, but achievement motive fails to do so. As for overall evaluation of the base model, the model fits the data reasonably well with IFI, NNFI, CFI, TLI, RMSEA, and SRMR being 0.748, 0.730, 0.745, 0.730, 0.060, and 0.082 respectively.

We then inspect the models with one interaction term. The results show that the path coefficients from the same three dimensions of personality traits to customer orientation are consistently significant, while the effect of achievement motive on customer orientation does not reach statistical significance yet again. However, the interaction between openness to experience and achievement motive reaches statistical significance ( $\hat{\beta} = 0.217, t = 2.134, p < 0.05$ ), and so does the interaction between extraversion and achievement motive ( $\hat{\beta} = 0.161, t = 2.610, p < 0.01$ ).

As for the models with two interaction terms, the same three dimensions of personality traits—openness to experience, conscientiousness, and agreeableness—are positively and significantly related to customer orientation. These results are consistent with those for the base model, and model with one interaction term. We again find the two interaction terms—openness to experience vs. achievement motive and extraversion vs. achievement motive—are significantly associated with customer orientation. Once we include these two interactive terms simultaneously in Model 2.1 in Table 2, however, both of these two significant interactive effects evaporate.

Finally we examine the results of models with three interaction terms in Table

4. We here again find the significant effects of the same three dimensions of personality traits—openness to experience, conscientiousness, and agreeableness—on customer orientation. We also find that the same two interaction terms—openness to experience vs. achievement motive, and extraversion vs. achievement motive—exerts significant effects on customer orientation. However, the two interaction terms—openness to experience vs. achievement motive and extraversion vs. achievement motive—seem highly correlated and, neither of them is significant when they exist simultaneously in the model. See models 3.1, 3.5, and 3.9 in Table 4.

After including one interaction term, the models seem improved in terms of AIC. However increasing the number of interaction terms to two and three improve the model very little. As for the control variables, age, and sales work experience do not reach statistical significance, while the path coefficients from job satisfaction to customer orientation are sometimes significant at 5 percent level and marginally significant at 10 percent level at other times.

**Table 2. Results for models with one interaction term**

	Equation															AIC	ΔAIC
	P1	P2	P3	P4	P5	N	C1	C2	C3	P1×N	P2×N	P3×N	P4×N	P5×N			
Base Model	0.322 ***	0.308 **	-0.022	0.501 ***	0.021	-0.019	0.194 †	-0.034	-0.022							55240.244	
(T value)	(3.376)	(3.233)	(-0.177)	(3.922)	(0.256)	(-0.229)	(1.958)	(-0.348)	(-0.317)								
1.1	0.316 **	0.303 **	-0.020	0.504 ***	-0.012	-0.042	0.209 *	-0.049	-0.004	0.201 *						53023.483	2216.761
(T value)	(3.066)	(2.843)	(-0.174)	(4.047)	(-0.134)	(-0.467)	(2.085)	(-0.553)	(-0.053)	(2.540)							
1.2	0.295 **	0.325 **	-0.010	0.492 ***	0.013	-0.013	0.201 *	-0.034	-0.016		0.094					53032.019	2208.225
(T value)	(2.863)	(3.033)	(-0.091)	(4.069)	(0.142)	(-0.157)	(2.012)	(-0.393)	(-0.243)		(1.323)						
1.3	0.283 **	0.340 **	0.038	0.455 ***	0.030	-0.052	0.192 †	-0.050	-0.008			0.161 **				53025.190	2215.054
(T value)	(2.689)	(3.118)	(0.327)	(3.713)	(0.336)	(-0.586)	(1.915)	(-0.570)	(-0.114)			(2.612)					
1.4	0.303 **	0.321 **	-0.003	0.478 ***	0.022	-0.027	0.190 †	-0.042	-0.012				0.084			53032.363	2207.881
(T value)	(2.895)	(3.016)	(-0.030)	(3.868)	(0.245)	(-0.314)	(1.907)	(-0.477)	(-0.183)				(1.142)				
1.5	0.312 **	0.310 **	-0.008	0.493 ***	0.020	-0.023	0.196 †	-0.031	-0.017					0.032		53034.008	2206.236
(T value)	(3.042)	(2.938)	(-0.066)	(4.059)	(0.222)	(-0.260)	(1.938)	(-0.357)	(-0.252)					(0.420)			

Note: N=459, † p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

P1: Openness to Experience, P2: Conscientiousness, P3: Extraversion, P4: Agreeableness, P5: Emotional Stability, N: Need for Achievement  
C1: Job Satisfaction, C2: Age, C3: Sales Work Experience

**Table 3. Results for models with two interaction terms**

	Equation															AIC	ΔAIC
	P1	P2	P3	P4	P5	N	C1	C2	C3	P1×N	P2×N	P3×N	P4×N	P5×N			
Base Model	0.322 ***	0.308 **	-0.022	0.501 ***	0.021	-0.019	0.194 †	-0.034	-0.022							55240.244	
(T value)	(3.376)	(3.233)	(-0.177)	(3.922)	(0.256)	(-0.229)	(1.958)	(-0.348)	(-0.317)								
2.1	0.325 ***	0.298 **	-0.023	0.508 ***	-0.012	-0.046	0.207 *	-0.050	-0.003	0.217 *	-0.030					53025.331	2214.913
(T value)	(3.306)	(2.825)	(-0.198)	(4.061)	(-0.139)	(-0.512)	(2.061)	(-0.561)	(-0.037)	(2.134)	(-0.317)						
2.2	0.299 **	0.320 **	0.007	0.482 ***	0.002	-0.05	0.203 *	-0.051	-0.003	0.140		0.075				53024.519	2215.725
(T value)	(2.900)	(2.980)	(0.063)	(3.876)	(0.027)	(-0.557)	(2.031)	(-0.586)	(-0.052)	(1.426)		(0.928)					
2.3	0.321 **	0.300 **	-0.024	0.511 ***	-0.014	-0.041	0.211 *	-0.047	-0.004	0.214 *			-0.025			53025.362	2214.882
(T value)	(3.141)	(2.845)	(-0.209)	(4.089)	(-0.161)	(-0.454)	(2.090)	(-0.535)	(-0.058)	(2.428)			(-0.282)				
2.4	0.324 **	0.302 **	-0.027	0.510 ***	-0.013	-0.04	0.206 *	-0.051	-0.003	0.206 *				-0.023		53025.371	2214.873
(T value)	(3.193)	(2.842)	(-0.234)	(4.108)	(-0.154)	(-0.438)	(2.039)	(-0.574)	(-0.043)	(2.509)				(-0.277)			
2.5	0.282 **	0.341 **	0.038	0.456 ***	0.029	-0.051	0.193 †	-0.049	-0.008		0.006	0.159 *				53027.186	2213.058
(T value)	(2.749)	(3.144)	(0.324)	(3.715)	(0.323)	(-0.578)	(1.919)	(-0.567)	(-0.117)		(0.078)	(2.297)					
2.6	0.291 **	0.328 **	-0.004	0.481 ***	0.016	-0.02	0.197 *	-0.039	-0.014		0.068		0.051			53033.511	2206.733
(T value)	(2.816)	(3.063)	(-0.033)	(3.928)	(0.179)	(-0.229)	(1.979)	(-0.446)	(-0.206)		(0.887)		(0.654)				
2.7	0.298 **	0.325 **	-0.014	0.494 ***	0.012	-0.012	0.200 *	-0.035	-0.016		0.100			-0.013		53033.990	2206.254
(T value)	(2.894)	(3.030)	(-0.122)	(4.107)	(0.137)	(-0.132)	(1.984)	(-0.407)	(-0.240)		(1.290)			(-0.154)			
2.8	0.293 **	0.340 **	0.042	0.470 ***	0.034	-0.059	0.197 †	-0.046	-0.009			0.264 *	-0.149			53024.865	2215.379
(T value)	(2.798)	(3.104)	(0.350)	(3.749)	(0.381)	(-0.665)	(1.913)	(-0.523)	(-0.131)			(2.547)	(-1.180)				
2.9	0.297 **	0.341 **	0.026	0.465 ***	0.030	-0.050	0.185 †	-0.055	-0.006			0.179 **		-0.053		53026.602	2213.642
(T value)	(2.897)	(3.114)	(0.220)	(3.780)	(0.336)	(-0.550)	(1.821)	(-0.627)	(-0.088)			(2.741)		(-0.658)			
2.10	0.311 **	0.322 **	-0.011	0.483 ***	0.021	-0.025	0.185 †	-0.046	-0.011				0.103	-0.033		53034.197	2206.047
(T value)	(3.019)	(3.012)	(-0.096)	(3.919)	(0.242)	(-0.286)	(1.822)	(-0.524)	(-0.163)				(1.012)	(-0.306)			

Note: N=459, † p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

P1: Openness to Experience, P2: Conscientiousness, P3: Extraversion, P4: Agreeableness, P5: Emotional Stability, N: Need for Achievement  
C1: Job Satisfaction, C2: Age, C3: Sales Work Experience

**Table 4. Results for models with three interaction terms**

	Equation															AIC	ΔAIC
	P1	P2	P3	P4	P5	N	C1	C2	C3	P1×N	P2×N	P3×N	P4×N	P5×N			
Base Model	0.322 ***	0.308 **	-0.022	0.501 ***	0.021	-0.019	0.194 †	-0.034	-0.022							55240.240	
(T value)	(3.376)	(3.233)	(-0.177)	(3.922)	(0.256)	(-0.229)	(1.958)	(-0.348)	(-0.317)								
3.1	0.310 **	0.313 **	0.005	0.486 ***	0.003	-0.056	0.202 *	-0.053	-0.002	0.159	-0.041	0.081				53026.297	2213.943
(T value)	(3.119)	(2.940)	(0.038)	(3.877)	(0.032)	(-0.617)	(1.998)	(-0.600)	(-0.030)	(1.361)	(-0.429)	(0.992)					
3.2	0.327 ***	0.297 **	-0.024	0.513 ***	-0.014	-0.044	0.210 *	-0.049	-0.003	0.225 *	-0.025		-0.019			53027.327	2212.913
(T value)	(3.300)	(2.818)	(-0.208)	(4.084)	(-0.155)	(-0.491)	(2.074)	(-0.546)	(-0.043)	(2.109)	(-0.260)		(-0.207)				
3.3	0.329 ***	0.299 **	-0.027	0.512 ***	-0.014	-0.043	0.206 *	-0.051	-0.002	0.219 *	-0.024			-0.015		53027.338	2212.902
(T value)	(3.307)	(2.817)	(-0.229)	(4.092)	(-0.156)	(-0.475)	(2.031)	(-0.574)	(-0.033)	(2.135)	(-0.252)			(-0.187)			
3.4	0.288 **	0.343 **	0.039	0.473 ***	0.031	-0.055	0.201 †	-0.045	-0.010		0.034	0.260 *	-0.161			53026.720	2213.520
(T value)	(2.782)	(3.121)	(0.328)	(3.762)	(0.338)	(-0.610)	(1.953)	(-0.507)	(-0.144)		(0.437)	(2.413)	(-1.308)				
3.5	0.306 **	0.321 **	0.015	0.492 ***	0.009	-0.056	0.207 *	-0.048	-0.005	0.131		0.176	-0.137			53024.663	2215.577
(T value)	(2.961)	(2.964)	(0.122)	(3.888)	(0.099)	(-0.629)	(2.023)	(-0.542)	(-0.076)	(1.318)		(1.516)	(-1.080)				
3.6	0.324 **	0.301 **	-0.026	0.514 ***	-0.015	-0.040	0.209 *	-0.049	-0.003	0.214 *			-0.017	-0.014		53027.384	2212.856
(T value)	(3.196)	(2.847)	(-0.225)	(4.122)	(-0.174)	(-0.442)	(2.034)	(-0.555)	(-0.050)	(2.430)			(-0.160)	(-0.146)			
3.7	0.295 **	0.345 **	0.023	0.467 ***	0.027	-0.045	0.187 †	-0.055	-0.006		0.025	0.172 *		-0.061		53028.539	2211.701
(T value)	(2.890)	(3.139)	(0.192)	(3.808)	(0.300)	(-0.498)	(1.837)	(-0.626)	(-0.093)		(0.317)	(2.439)		(-0.759)			
3.8	0.301 **	0.331 **	-0.015	0.488 ***	0.014	-0.015	0.191 †	-0.044	-0.012		0.077		0.074	-0.049		53035.209	2205.031
(T value)	(2.930)	(3.056)	(-0.130)	(4.000)	(0.160)	(-0.174)	(1.885)	(-0.511)	(-0.178)		(0.992)		(0.750)	(-0.469)			
3.9	0.313 **	0.321 **	-0.003	0.491 ***	0.002	-0.047	0.197 †	-0.056	-0.002	0.138		0.093		-0.049		53026.089	2214.151
(T value)	(3.067)	(2.969)	(-0.027)	(3.934)	(0.024)	(-0.520)	(1.938)	(-0.637)	(-0.030)	(1.392)		(1.122)		(-0.600)			
3.10	0.294 **	0.340 **	0.040	0.473 ***	0.033	-0.059	0.197 †	-0.046	-0.009			0.266 *	(-0.150)	(-0.002)		53026.927	2213.313
(T value)	(2.855)	(3.090)	(0.324)	(3.765)	(0.374)	(-0.655)	(1.903)	(-0.526)	(-0.130)			(2.504)	(-1.002)	(-0.016)			

Note: N=459, † p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

P1: Openness to Experience, P2: Conscientiousness, P3: Extraversion, P4: Agreeableness, P5: Emotional Stability, N: Need for Achievement  
C1: Job Satisfaction, C2: Age, C3: Sales Work Experience

## 6. Discussion

We first discuss individual effects of the big five, of achievement motive, and of their interactive effects on customer orientation in relation to our hypotheses and to the result of the preceding studies. Where our results do not corroborate them, possible explanations are given. Then we consider the implications of these results in a broader context of motive-trait debate. Finally we conclude the section by pointing out its limitations and future directions.

## 6.1 Individual Effects

Our analysis reveals that three dimensions—openness to experience, conscientiousness, and agreeableness—of the big five are positively and significantly correlated with customer orientation. This result is found in all tested models with or without interaction terms.

The expected result (hypothesis 4) that agreeableness is positively correlated with customer orientation is consistent with Frei and McDaniel (1998) and Brown et al (2002). The significant effect of conscientiousness on customer orientation is also expected (hypothesis 2) and supports the results of Frei and McDaniel (1998) and Sunohara and Watanabe (2006). As expected (hypothesis 3), the effect of extraversion does not reach statistical significance on customer orientation, which agrees with Frei and McDaniel (1998) and Brown et al. (2002).

We find an unexpected (contrary to hypothesis 1) significant effect of openness to experience on customer orientation. One possible explanation for this significant effect is that our study subjects, salespeople working for large Japanese corporations, are marketing their complex and customizable products to their corporate clients and imaginative, cultured, curious, broad-minded personality traits are helpful, desirable, or even required in finding solutions to their customers' needs.

Also contrary to our expectation (that is, contrary to hypothesis 5), to Frei and McDaniel (1998), and to Brown et al (2002), we do not find significant effect of emotional stability on customer orientation. This insignificant effect is probably due to the fact that most of our study subjects are already experienced in competitive corporate-to-corporate sales and there is little room for emotionally instable salesperson to survive. So we feel that explanation by Brown et al. (2002, p. 112) is still valid that “[e]motional instability may result in a fluctuating desire to serve customers and meet their needs.” It is just that our study subjects are survivors screened at least for this trait within their respective corporations over the years.

The path coefficient from achievement motive to customer orientation does

not reach statistical significance contrary to our expectation in hypothesis 6. We formulated hypothesis 6 because we reason that characterization of achievement motivated individuals by Spangler et al. (2004) is accurate and that they “actively collect and use information for feedback purpose,” but the estimation result clearly shows that characterization is not applicable to our study subjects. One possible explanation is that the present findings reflect the characteristics of the particular sample at hand.

On the other hand, it is difficult to envision competitive corporate-to-corporate sales situations where achievement motive does not play a role at all. Naturally this insignificant result prompts us to take a serious look at the mechanism put forth by Winter et al. (1998, p. 231) that “motives involve wishes, desires, or goals (often implicit or nonconscious), whereas traits channel or direct the ways in which motives are expressed in particular actions throughout the life course.” For this mechanism to be valid in its entirety, however, *empirical studies on such behavioral expressions at least need to demonstrate the following: 1) a motive under study does not show an individual effect on behavioral expressions under study; but 2) interactions with traits relevant to the motive show significant effect on the behavioral expression.* What we observe here meet the first condition and achievement motive does not significantly affect customer orientation. As we shall see in the next subsection, second requirement is also met because some interactions—for our case, conscientiousness vs. achievement motive and openness to experience vs. achievement motive—do show significant effect on customer orientation. Therefore the present study seems to give some credence to this “channeling hypothesis” (Winter et al. 1998, p. 231). What we have uncovered is different from their version of channeling hypothesis, however: they were interested in long-term life outcomes, whereas we are focusing on a particular predisposition in a structured work environment that requires immediate responses. As a result, they needed to use TAT-measured implicit motive, while we are required to employ self-attributed explicit motive.

On the relation of motive and trait, three results that 1) conscientiousness itself affects customer orientation (confirmation of hypothesis 2) in base model, 2)

achievement motive does not affect customer orientation (rejection of hypothesis 6) in base model, and 3) these two results are consistently observed in models 1.1 to 3.8 with one, two, or three interaction terms, constitute a strong piece of evidence that conscientiousness and achievement motive—a motive and a trait that would seem at a first glance to refer to the similar domain of behavior—are empirically independent.

## **6.2 Interactive Effects**

Three interaction terms—conscientiousness vs. achievement motive (hypothesis 8), agreeableness vs. achievement motive (not hypothesized and exploratory), and emotional stability vs. achievement motive (also not hypothesized and exploratory) —do not have significant effects on customer orientation. The insignificant effect of interaction between conscientiousness vs. achievement motive is expected from hypothesis 8. On the other hand, salespeople with openness to experience or extraversion, if they also possess self-attributed achievement motive, they are more likely to be predisposed to meet customer needs as hypothesized. These significant interactive effects are expected respectively from hypotheses 7 and 9.

As for extraversion, it coincides with our hypothesis that extraversion does not affect customer orientation by itself, but achievement motive manifests itself through extraversion, or extraversion “channels” achievement motive, in shaping customer orientation. In other words, without a desire to achieve a standard of excellence or a desire to be successful in competitive situations, a salesperson with such seemingly advantageous traits as sociable, gregarious, assertive, talkative, and active personality are not predisposed to meet customer needs in an on-the-job context.

As for openness to experience, something a little more elaborate is going on. Notice that, contrary to our hypothesis 1, a salesperson with openness to experience has a tendency to meet customer needs. If s/he also possess self-attributed achievement motive, the result indicates that it strengthens this tendency even further confirming hypothesis 7. In other words, imaginative, cultured, curious, broad-minded personality traits by themselves shape our salesperson’s predisposition to meet cus-

customer needs in an on-the-job context, but their level or commitment to customer orientation is enhanced further if they also have a desire to achieve a standard of excellence or a desire to be successful in competitive situations.

Concerning the control variables, job satisfaction has positively and sometimes marginally, but other times significantly affect customer orientation in all tested models, which partially supports Thakor and Joshi (2005). Although age and total sales experience did not reach the statistical significance consistently, these insignificant results are also consistent with Thakor and Joshi (2005). We leave these control variables regardless of their statistical significance to signify differences in these control variables are incorporated in all of our models.

### **6.3 Implications**

Despite all the important distinction in theoretical literature, the empirical boundaries between motive and trait have sometimes remained ambiguous. Many consistently observed behaviors that rise to trait are endowed with characteristics of motive. So many trait theorists consider traits as having motivational components. See for example McCrae (1994), Goldberg (1994), Hofstee (1994), and Osterndorf and Angleitner (1994) in the aforementioned 1994 *Psychological Inquiry* issue. High correlations are sometimes observed between trait and questionnaire items designed to measure Murray's needs and this reinforces the idea that traits subsume motive. For example, Costa and McCrae (1988, p. 258), "in an attempt to provide a more meaningful classification of the Murray's needs," examined the scales of Form E of the PRF in relation to the NEO Personality Inventory (henceforth, NEO-PI, Costa and McCrae (1985)) that measures the big five traits. They found that achievement motive in PRF scale is highly and positively correlated with conscientiousness in NEO-PI with correlation coefficient 0.46 and varimax-rotated principal component loading of 0.64.

However this high correlation argument is potentially flawed because they also found that achievement motive in PRF scale is highly and positively correlated with Openness in NEO-PI with the loading of 0.46. Just because achievement motive

is analogous to both conscientiousness and openness does not necessarily indicate that achievement motive is subsumed by these traits. Even worse, other researchers found that achievement motive was comparable to assertiveness, a trait identified by many as one of the important components of extraversion. For instance, Cattell (1981) found that assertiveness is strongly correlated with a desire to increase salary and status, which we measure using our items NfA1 and NfA4 for achievement motive based on the PRF personality scales by Murray (1938).

Instead of the premise that traits subsume motives, we set out assuming that motives and trait are independent, that they interact, and that jointly they explain customer orientation well. Some of the hypotheses we formulated turns out erroneous, at least for our study subject. However, results of the present study by and large support our three premises: 1) a trait of conscientiousness and achievement motive that would appear to refer to the same domain of behavior are empirically independent in relation to customer orientation; 2) traits and achievement motive interact meaningfully in explaining customer orientation; 3) the motive and the big five traits together offer analyses and interpretations of customer orientation “far more subtle and sophisticated than those that employ only one of the two concepts, or employ them separately” in the words of Winter et al. (1998, p. 231).

As for practical implications, Cran (1994, p. 34) maintained that “service orientation is an inherent disposition” and proposed that “even with training, low service orientation employees may present longer term attitudinal and performance problems for organizations.” Thus it is essential to identify customer-oriented job applicants. In the present study with volunteer subjects, we find some of the big five personality traits along with their interactions with achievement motive positively affect customer orientation. Question arises as to the applicability of our results to personnel selection.

When a volunteer responds to a survey like ours with the promise of anonymity and confidentiality, her/his response is presumed truthful because s/he stands to gain or lose nothing as a consequence of her/his responses. On the other hand, much more is at stake in the case of a job applicant responding to a personality as-

assessment because s/he stands to gain or lose a coveted position or a promotion. As a result it is expected that a job applicant tailors their responses as if s/he were an ideal employee. Due to this *frame of reference effect*, Schmit and Ryan (1993) have argued that it is unlikely that the big five personality traits adequately describe personality of job applicant. Responding to this criticism, however, Smith et al. (2001) demonstrated that the five factor model was adequate as a descriptor of job applicants as well. Unfortunately, there is not a single frame of reference effect study on achievement motive comparable to Smith et al. (2001) to illustrate that self-attributed achievement motive construct is an adequate descriptor of job applicants as well to the best of our knowledge. Therefore, the results of this study, even when replicated, remain partially applicable to selection of customer oriented personnel.

## **6.2 Limitations and Future Directions**

Our results in models 2.2, 3.1, 3.5, 3.9 show that the two otherwise significant interaction terms—conscientiousness vs. achievement motive and openness to experience vs. achievement motive—become insignificant, when included simultaneously in the model. Statistically speaking, this means that these two interaction terms are highly correlated. However, to the extent that we cannot clarify the root cause of this phenomenon, the present study has its limitations. One NEO-PI variable in openness facets, called ideas, was found highly and positively correlated with achievement motive in PRF scale in Costa and McCrae (1988). At the same time NEO-PI variable conscientiousness was also found highly and positively correlated with achievement motive in PRF scale. We do not know if the empirical result of a study—a part of openness as well as whole conscientiousness are observed simultaneously, highly, and positively correlated with achievement motive—of subjects of the well-educated mainly White men and women in the North America of Costa and McCrae (1988) can be generalized to our study subjects of well-educated Japanese men. This topic is beyond the scope of this article, however, and waits future investigation.

More importantly, Barrick et al. (2002, p. 43), using the big five and three motives—they use phrases like communion striving for affiliation motive, status striving

for power motive, and accomplishment striving for achievement motive instead—as well as job performance, “examine the mediating effects of cognitive-motivational work orientations on the relationships between personality traits and performance in a sales job.” Some of their hypothesis is similar to ours. For instance their hypothesis 2 that “[a]ccomplishment striving and ratings of sales performance exhibit a positive, direct relationship” is similar to our hypothesis 6 if “sales performance” is replaced with “customer orientation.” Although their association hypothesis 7 that “[i]ndividuals scoring high on Conscientiousness report stronger intentions regarding accomplishment striving” does not necessarily contradict our hypothesis, it is clear from their Figure 1 (Barrick et al., 2002, p. 48), that what this hypothesis really implied was that conscientiousness affected achievement motive, the channeling effect totally reversed from that Winter et al. (1998) proposed and illustrated, and we empirically confirmed in the present study. Their centrality of cognition or of the big five personality traits relative to motives must be closely scrutinized relative to our premise that motives and traits interact meaningfully in explaining behaviors and motives and traits together offer analyses and interpretations of behaviors more nuanced and sophisticated. For this reason, we wait for results replicated with different samples and across cultures.

## References

Allport, G.W. (1937). *Personality: A Psychological Interpretation*. New York. Holt.

Allport, G.W. (1961). *Pattern and Growth in Personality*. New York. Hold, Rinehart, and Winston.

Barrick, M. R. and Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44, 1-26.

Barrick, M.R., Mount, M.K., and Strauss, J.P. (1993). Conscientiousness and Performance of Sales Representatives: Test of the Mediating Effects of Goal Setting. *Journal of Applied Psychology*, 78(5), 715-722.

Barrick, M.R., Stewart, G.L., and Piotrowski, M. (2002). Personality and Job Performance: Test of the Mediating Effects of Motivation Among Sales Representatives. *Journal of Applied Psychology*, 87(1), 43-51.

Brady, M. K., and Cronin Jr., J. J. (2001). Effects on Customer Service Perceptions and Outcome Behaviors. *Journal of Service Research*, 3(3), 241-251.

Brown, T. J., Mowen, J. C., Donavan, D. T., and Licata, J. W. (2002). The Customer Orientation of Service Workers: Personality Trait Effects on Self- and Supervisor Performance Ratings. *Journal of Marketing Research*, 39 (February), 110-119.

Buss, D.M. and Craik, K.H. (1983). The act frequency approach to personality. *Psychological Review*, 90, 105-126.

Carraher, S.M., Mendoza, J.L., Buckley, M.R., Schoenfeldt L.F., and Carraher, C.E. (1998). Validation of an Instrument to Measure Service-Orientation. *Journal of Quality Management*, 3(2), 211-224.

Cattell, R.B.(1946). Description and measurement of personality, Yonkers-on-Hudson, NY: World Book.

Cattell, R.B. (1981). Where Next in Human Motivation Research? Some Possible Crucial Experiments. In R.Lynn (Ed.), *Dimensions of Personality: Papers in Honor of H.J. Eysenck*, 53-77. Oxford: Pergamon Press.

Costa, P.T. Jr. and McCrae, R.R. (1985). *The NEO Personality Inventory Manual*. Odessa, FL.: Psychological Assessment Resources.

Costa, P.T. Jr. and McCrae, R.R. (1988). From Catalog to Classification: Murray's Needs and the Five-Factor Model. *Journal of Personality and Social Psychology*, 55(2), 258-265.

Cran, D.J. (1994). Towards Validation of the Service Orientation Construct. *The service industries journal*, 14(1), 34-44.

Deshpandé, R., Farley, J.U., and Webster, Jr. F.E. Corporate Culture, Customer

Orientation, and Innovativeness in Japanese Firms: A Quadrad Analysis. *Journal of Marketing*, 57(1), 23-37.

Digman, J. M. (1990). Personality structure: Emergence of the five-factor model, *Annual Review of Psychology*, 41, 417-440.

Fiske, D.W. (1949). Consistency of the Factorial Structure of Personality Ratings from Different Sources. *Journal of Abnormal and Social Psychology*, 44, 329-344.

Fiske, D.W. (1994). Two Cheers for the Big Five!, *Psychological Inquiry*, 5, 123-124.

Frei R. L. and McDaniel, M. A. (1998). Validity of Customer Service Measures in Personnel Selection: A Review of Criterion and Construct Evidence. *Human Performance*, 11 (1), 1-27.

Funder, D.C. (1994). Explaining Traits, *Psychological Inquiry*, 5, 125-127.

Goldberg, L.R. (1981). Language and Individual Differences: The search for universals in personality lexicons. In Wheeler, L. (Ed.) *Review of personality and social psychology*, 2, 141-165. Beverly Hills, CA: Sage.

Goldberg, L.R. (1990). An Alternative "Description of Personality": The Big-Five Factor Structure. *Journal of Personality and Social Psychology*, 59(6), 1216-1229.

Goldberg (1994). How not to whip a straw dog. *Psychological Inquiry*, 5, 128-130.

Gray, J.A. (1973). Causal theories of personality and how to test them. In Royce, J.R. (Ed.), *Multivariate analysis and psychological theory* (pp. 409-464). New York: Academic Press.

Harlow, R.E. and Cantor, N. (1994). A Functionalist Agenda for Trait Psychology, *Psychological Inquiry*, 5, 130-132.

Harrell, A.M. and Stahl, M.J. (1984). McClelland's Trichotomy of Needs Theory and the Job Satisfaction and Work Performance of CPA Firm Professionals. *Accounting Organizations and Society*, 9(3/4), 241-252.

Hofstee, W.K.B. (1994). Will the true trait theorist please stand up? *Psychological Inquiry*, 5, 134-137.

Hogan, J., Hogan, R., and Busch, C.M (1984). How to Measure Service Orientation. *Journal of Applied Psychology*, 69 (1), 167-173.

Hogan, J., and Hogan, R. (1986). Hogan Personnel Selection Series Manual. Tulsa, OK: Hogan Assessment Systems.

Hurtz, G.M. and Donovan, J.J. (2000). Personality and Job Performance: The Big Five Revisited. *Journal of Applied Psychology*, 85(6), 869-879.

James.L.R. and Rentsch, J.R. (2003). J-U-S-T-I-F-Y to Explain the Reasons Why: A Conditional Reasoning Approach to Understanding Motivated Behavior. In Schneider, B and Smith, D.B. (Eds.) *Personality and Organizations*, 223-250. Lawrence Erlbaum Associates, London.

Jenkins, S.R. (1987). Need for Achievement and Women's Careers Over 14 Years: Evidence for Occupational Structure Effects. *Journal of Personality and Social Psychology*, 53(5), 922- 932.

John, O. P. and Robins, R.W. (1994). Traits and Types, Dynamics and Development: No Doors Should Be Closed in the Study of Personality, *Psychological Inquiry*, 5, 137-142.

Kelly, S.W. (1992). Developing Customer Orientation among Service Employees. *Journal of the Academy of Marketing Science*, 20(1), 27-36.

Lawler III, E.E. (1994). Motivation in Work Organization. *Jossey-Bass Publishers*.

Maslow, A.H. (1943). A Theory of Human Motivation. *Psychological Reviews*, 50, 370-396.

Maslow, A.H. (1954). Motivation and personality. New York: Harper and Row.

Maslow, A.H. (1970). Motivation and personality. (2<sup>nd</sup> ed.) New York: Harper and Row.

McClelland, D.C. (1951). Personality, New York, William Sloane.

McClelland, D.C. (1965). N Achievement and Entrepreneurship: A Longitudinal Study. *Journal of Personality and Social Psychology*, 1, 389-392.

McClelland, D.C. (1987). Human Motivation. *Cambridge University Press*, Cambridge, United Kingdom.

McClelland, D.C., Atkinson, J.W., Clark, R.A., and Lowell, E.L. (1953). The Achievement Motive. New York: Appleton-Century-Crofts.

McClelland, D.C. and Boyatzis, R.E. (1982). Leadership Motive Pattern and Long-Term Success in Management. *Journal of Applied Psychology*, 67(6), 737-743.

McClelland, D.C., Koestner, R., and Weinberger, J. (1989). How Do Self-Attributed and Implicit Motives Differ?. *Psychological Review*, 96(4), 690-702.

McCrae, R.R. (1994). New Goals for Trait Psychology. *Psychological Inquiry*, 5, 148-153.

McCrae, R.R. and Costa, P.T. Jr. (1985). Updating Norman's "adequate taxonomy": Intelligence and personality dimensions in natural language and in questionnaires. *Journal of Personality and Social Psychology*, 49(3), 710-721.

McCrae, R.R. and Costa, P.T. Jr. (1987). Validation of the Five-Factor Model of Personality Across Instruments and Observers. *Journal of Personality and Social Psychology*, 52(1), 81-90.

McCrae, R.R. and Costa, P.T. Jr. (1996). Toward a new generation of personality theories: Theoretical contexts for the five factor model. In Wiggins, J.S. (Ed.), *The five-factor model of personality: Theoretical perspectives*, 51-87. New York: Guilford Press.

The Small and Medium Enterprise Agency Within the Ministry of Economy, Trade and Industry (2005). *White Paper on Small and Medium Enterprises in Japan 2005*, translated by Japan Small Business Research Institute.

Morgan, C.D. and Murray, H.A. (1935). A Method for Examining Fantasies: The Thematic Apperception Test. *Archives of Neurology and Psychiatry*, 34, 289-306.

Mount, M.K., Barrick, M.R., and Stewart, G.L. (1998). Five-Factor Model of Personality and Performance in Jobs Involving Interpersonal Interactions. *Human Performance*, 11(2/3), 145-165.

Murray, H.A. (1938) Chapter 3 Variables of personality. In Murray.H.A (Ed.) *Explorations in personality-A Clinical and Experimental Study of Fifty Men of College Age*, 142-242. New York, Oxford University Press.

Muthen (2004). Mplus Home > Mplus Discussion> Structural Equation Modeling > Interaction.

<http://www.statmodel.com/discussion/messages/11/499.html?1163790654>

Norman, W.T. (1963). Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality rating. *Journal of Abnormal and Social Psychology*, 66, 574-583.

O'Hara, B.S., Boles J.S., and Johnston, M.W. (1991). The Influence of Personal Variables on Salesperson Selling Orientation. *Journal of Personal Selling and Sales Management*, 11(1), 61-67.

Oliver, L.W. (1974). Achievement and Affiliation motivation in Career-Oriented and Homemaking-Oriented College Women. *Journal of Vocational Behavior*, 4, 275-281.

Osterndorf and Angleitner (1994). Enthusiasts contra pessimists. *Psychological Inquiry*, 5, 159-162.

Pervin, L.A. (1994a). A Critical Analysis of Current Trait Theory. *Psychological Inquiry*, 5, 103-113.

Pervin, L.A. (1994b). Further Reflections on Current Trait Theory. *Psychological Inquiry*, 5, 169-178.

Salgado, J.F. (1997). The Five Factor Model of Personality and Job Performance in the European Community. *Journal of Applied psychology*, 82(1), 30-43.

Saxe, R. and Weitz, B. A. (1982). The SOCO Scale: A Measure of the Customer Orientation of Salespeople. *Journal of Marketing Research*, 19 (August), 343-351.

Schmit, M.J. and Ryan, A.M. (1993). The Big Five in Personnel Selection: Factor Structure in Applicant and Nonapplicant Populations. *Journal of Applied Psychology*, 78, 966-974.

Smith, D.B., Hanges, P.J., and Dickson, M.W. (2001). Personnel Selection and the Five Factor Model: Reexamining the Effects of Applicant's Frame of Reference. *Journal of Applied Psychology*, 86(2), 304-315.

Spangler, W. D., House, R. J. and Palrecha, R. (2004). Personality and Leadership. In Schneider, B and Smith, D.B. (Eds.) *Personality and Organizations*, 251-290. Lawrence Erlbaum Associates, London.

Steers, R.M. (1975). Task-Goal Attributes, n Achievement, and Supervisory Performance. *Organizational Behavior and Human Performance*, 13, 392-403.

Stewart, G.L. (1996). Reward Structure as a Moderator of the Relationship Between Extraversion and Sales Performance. *Journal of Applied Psychology*, 81(6), 619-627.

Sunohara, M., and Watanabe. S. (2006). On the Determinants of Continuous Learning Targeting on Salespeople, Master Thesis, Doctoral Program of the graduate school in University Tsukuba.

Susskind, A.M., Kacmar, K.M. and Borchgrevink, C.P. (2003). Customer Service Pro-

viders' Attitudes Relating to Customer Service and Customer Satisfaction in the Customer-Server Exchange. *Journal of Applied Psychology*, 88(1),179-187.

Thakor, M.V. and Joshi, A.W. (2005). Motivating Salesperson Customer Orientation: Insights from the Job Characteristics Model. *Journal of Business Research*, 58, 584-592.

Tupes, E.C. and Christal, R.E. (1961, May). Recurrent Personality Factors Based on Trait Ratings (ASD-TR-61-97). Lackland Air Force Base, TX: Aeronautical Systems Division, Personnel Laboratory.

Vinchur, A.J., Schippmann, J.S., Switzer III, F.S., and Roth, P.L. (1998). A Meta-Analytic Review of Predictors of Job Performance for Salespeople. *Journal of Applied Psychology*, 83(4), 586-597.

Walsh, W. B. (2004). Vocational Psychology and Personality. In Schneider, B and Smith, D.B. (Eds.) *Personality and Organizations*, 141-161. Lawrence Erlbaum Associates, London.

Winter, D.G. (1996). *Personality: Analysis and Interpretation of Lives*. New York: McGraw-Hill.

Winter, D.G., John, O. P., Stewart, A. J., Klohnen, E. C., and Duncan, L. E. (1998). Traits and Motives: Toward an Integration of Two Traditions in Personality Research. *Psychological Review*, 105(2), 230-250.

Witt, L.A., Burke, L.A., Barrick, M.R., and Mount, M.K. (2002). The Interactive Effects of Conscientiousness and Agreeableness on Job Performance. *Journal of Applied Psychology*, 87(1), 164-169.

Zeithaml V.A., Berry, L., and Parasuraman, A. (1996). The Behavioral Consequences of Service Quality, *Journal of Marketing*, 60 (April), 31-46.

## **Appendix: Questionnaire Items**

### **Openness to Experience**

Op1 I am interested in many things.

Op2 I tend to like diversity.

Op3 Disregarding the conventional wisdom, I often come up with creative and novel ideas using my imagination.

Op4 I can see things from different perspective.

Op5 I am bold and adventurous.

Op6 I have great interests in new and unknown things.

Op7 I like an environment in which I can exercise my creativity.

Op8 I often come up with original ideas using my imagination.

### **Conscientiousness**

Cons1 I do things methodically.

Cons2 I am diligent.

Cons3 Others would describe me as organized.

Cons4 When I attempt to do something, I pay attention to details.

Cons5 I tend to think systematically.

Cons6 I make thorough preparations.

Cons7 I put efforts into ensuring that I do not neglect anything.

### **Extraversion**

Ex1 I am friendly.

Ex2 I am cheerful.

Ex3 I make people around me happy.

Ex4 I spontaneously do things.

Ex5 I am often said to be active.

Ex6 I am friendly with anyone even at the first encounter.

Ex7 I am sociable.

Ex8 I like social functions such as parties very much.

Ex9 I like to talk.

### **Agreeableness**

Ag1 People describe me as unselfish.

Ag2 I like to help others.

Ag3 I am often said to be good-natured.

Ag4 I am often said to be obedient.

Ag5 People describe me as polite.

Ag6 I basically trust most people.

Ag7 People tell me that I am get along with them well.

Ag8 I do not evaluate people harshly.

Ag9 I am often said to be sympathetic.

### **Emotional Stability<sup>8</sup>**

Em1 People often describe me as nervous. (R)

Em2 I often feel pity for myself. (R)

Em3 I am emotional. (R)

Em4 When things do not go well, I tend to be irritated. (R)

Em5 I feel afraid and worried unnecessarily. (R)

Em6 Whatever the situation I face, I am collected.

Em7 I often feel uneasy. (R)

### **Achievement motive (Need for achievement)**

NfA1 I make twice as much effort as others to raise my status.

NfA2 I strive very hard not to be outdone by others.

NfA3 I make every effort to achieve results higher than expected.

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<sup>8</sup> (R) means the item was reversed when analyzing the data.

NfA4 I make every effort if it brings me a raise in pay.

NfA5 I make every effort if it leads to a promotion.

NfA6 I strive very hard if it leads to a faster promotion than others.

NfA7 I make effort to accomplish more than others.

NfA8 I strive very hard to enrich my life.

### **Customer Orientation**

CO1 I try to look at things from my customers' point of view.

CO2 I try to establish the relationship of mutual trust with my customers.

CO3 I make myself aware what I have to do to benefit my customers.

CO4 My sales activities are organized around the principle that they should benefit my customers.

CO5 I try to make efforts to deepen my understanding of the problems my customers have.

### **Job Satisfaction**

EM1 My job is exciting and challenging.

EM2 I work on my job independently without relying on others.

EM3 My job lets me have the chance to be somebody.

EM4 I can make full use of my abilities in my job.

EM5 I feel accomplished on my job.

### **Age**

How old are you?

### **Total work Experience**

How long have you worked for your company?

### **Sales work Experience**

How many years sales experience do you have in all?