

# Chapter XXX

## Holland's Vocational Theory and Personality Traits of Information Technology Professionals

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### ABSTRACT

*Drawing on Holland's (1985, 1996) vocational theory and based on a sample of 9,011 IT professionals, two research questions were investigated. On what personality traits do IT professionals differ from other occupations and which of these are also related to their career satisfaction? Five traits met both these criteria—Emotional Resilience, Openness, Tough-Mindedness, and Customer Service—for which IT professionals had higher scores, and conscientiousness, for which they had lower scores. IT career satisfaction was also positively related to Extraversion, Agreeableness/Teamwork, Assertiveness, Optimism, Tough-Mindedness, Work Drive, and Visionary Style. Results are discussed in terms of the fit of these traits with IT work and the value of these insights for personnel-management functions like selection, training, professional development, and career planning.*

## **PERSONALITY TRAITS AND CAREER SATISFACTION OF INFORMATION TECHNOLOGY PROFESSIONALS**

The purpose of this chapter is to apply Holland's (1985; 1996) vocational theory to the occupational field of Information Technology (IT) using a large, empirical sample of IT professionals. Original findings are presented on key personality traits of IT professionals and implications of these results are discussed.

John L. Holland is, arguably, one of the most eminent and influential vocational theorists of our time. He is famous for his psychological theory of careers, including career choice, vocational preference, and a taxonomy of personality types for occupations. Holland's vocational theory has several main premises. First, people can be characterized by their resemblance to basic personality attributes. In his view, the key personality attributes are what he terms "types" which have historically been assessed as vocational interests (Holland, 1985). However, as will be explained below, accumulating evidence convincingly shows that personality traits may be effectively substituted for vocational interests in explications of the main tenets of Holland's theory.

The six main vocational interest themes in Holland's model are: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional (The Career Key, 2008). Another major premise of Holland's vocational theory is that jobs, occupations, and work environments can also be viewed in terms of their resemblance to these basic personality types. The final major premise of Holland's theory is that the correspondence or fit between persons and work environments on these personality types leads to important vocational outcomes, including satisfaction, tenure, and performance. Holland summarized the essence of his vocational theory as follows:

*Studies show that people flourish in their work environment when there is a good fit between their personality type and the characteristics of the environment. Lack of congruence between personality and environment leads to dissatisfaction, unstable career paths, and lowered performance. (Holland, 1996, p. 397).*

There are two logical corollaries of Holland's fit model which have been generally verified by subsequent research and are germane to the present study. 1) There are differences in average scores on personality characteristics associated with occupations which help determine fit; and 2) higher scores on these personality characteristics are related to higher levels of satisfaction. Thus, for example, under the Holland model artists tend to have higher mean scores on the Artistic vocational interest scale and higher artistic scores are associated with greater job satisfaction of artists (Holland, 1985; 1996). Making a similar extension of Holland's taxonomy to the IT professions, computer programmers and IT workers have typically (e.g., O\*NET, 2008) been considered as exemplifying three of the Holland dimensions—Investigative, Realistic, and Conventional—reflecting, respectively, the profession's scientific-research orientation, its emphasis on practical concerns including working with machinery and equipment, and its penchant for working in a structured, office setting.

Although research has been conducted on a variety of topics related to psychological characteristics and the functioning of IT workers—including work values (Prasad, Enns, & Ferratt, 2007), best management practices (Major, Davis, Germano, Fletcher, Sanchez-Hucles, & Mann, 2007), precursors of voluntary turnover (Rouse, 2001), self-efficacy and well-being (Beas & Salanova, 2006), anomie (Shankar, 2007), burnout (Hetland, Sandal, & Johnsen, 2007), and work-nonwork conflict (Messersmith, 2007)—research on the vocational interests of IT workers is much more limited. The few extant studies in this literature mainly focus

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