Psychometric Validation of the OnFire Measure of Drive, Extraversion, Influence, Norm Following, Optimism and Resilience

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Abstract

On average, 70-80% of advisors leave financial services within their first three years in the industry (Mc Manus & Kelly, 1999; Mellor, 2012; Seligman, 1998). Addressing the financial and humanitarian costs of this high turnover of staff creates a demand for a tool that can assist in the selection of individuals who are more likely to stay and commit to the field of financial services. Consequently, a New Zealand consulting firm developed the OnFire measure to help predict the survival and success of advisors within the field of financial services. The measure incorporates six personality dispositions, each derived from academic literature and anecdotal data from within the field. These dispositions were: Drive, Extraversion, Influence, Norm Following, Optimism and Resilience.

This research assessed the validity and reliability of the OnFire measure in order to determine its psychometric properties. Surveys were distributed to various professional associations operating within New Zealand's financial and insurance industries. The study obtained a total of 204 participants, 78.5% of whom had been in the financial service industry for ten or more years. The factor structure, convergent validity and nomological network integrity were explored for each of the OnFire variables. Finally, the criterion-related validity was determined for each of the OnFire scales using the industry commitment and industry tenure of financial advisors.

When determining the factor structure of the OnFire scales, three scales were each found to consist of two factors. Drive was separated into Inner Drive and Workaholism, Extraversion into Group Orientation and Social Skills, and Norm Following into Process Following and Group Following. Seven of the 57 OnFire items were removed due to insignificant factor loadings. The

Workaholism factor of the Drive scale and the Process Following factor of the Norm Following scale failed to achieve convergent validity with the previously established International Personality Item Pool (IPIP) scales. Furthermore, the Extraversion scale, Norm Following scale and Workaholism factor obtained alpha reliabilities below Nunnally's (1994) recommended level and did not achieve a meaningful relationship with the criterion-related variable of industry commitment. Interestingly, none of the variables obtained a significant correlation with the other criterion-related variable of industry tenure. This was attributed to the high level of range restriction within the study.

Overall, the current study found partial support for the psychometric validity of the OnFire measure. Specifically, the Influence scale, Optimism scale, Resilience scale and Inner Drive factor demonstrated their psychometric utility, whereas the other OnFire scales may require further research and development in order for their use in the selection and development of advisors to be fully endorsed within the field of financial services.

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"It is good to have an end to journey toward; but it is the journey that matters, in the end." — Ernest Hemingway

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Chapter One - Introduction

On average, 70-80% of advisors leave financial services within their first three years in the industry (Mc Manus & Kelly, 1999; Mellor, 2012; Seligman, 1998). This loss of investment in human potential creates a financial and humanitarian burden for financial service companies (Mc Manus & Kelly, 1999; Mellor, 2012; Seligman, 1998). Consequently, there is high demand for a tool that can provide insight into candidates who are more likely to survive and succeed within the field of financial services.

A key challenge in the industry is the constant and continual rejection that advisors receive from potential clients (Seligman, 1998; Yang, Kim, & McFarland, 2011). A primary part of a financial advisor's role involves 'prospecting' to find new clients to provide with financial advice. However, often individuals are not interested in receiving financial advice and reject the advisors' propositions (Seligman, 1998). This process can occur sequentially by numerous potential clients on a daily basis (Seligman, 1998). As a result, advisors can become discouraged, leading to a lack of commitment, reduced productivity, turnover cognitions and eventually resignation, as Seligman (1998) stated:

> Every single day even the best agent has quite a few people say no, usually a number of them tight in a row. So it's easy for the average agent to get discouraged. Once they get discouraged, they take the no's harder and harder; it takes more and more effort for them to get up and make the next call. They put off making the next call. They spend more and more time fiddling around and doing things that keep them away from the telephone and off the road. This makes it even harder to make the next call. Their production falls off, and they start to think about quitting. When they hit that wall, few of them know how to get over, under, or around it. (pp. 97-98).

The industry is also taxing due to the number of changes it has experienced over the years, the reliance on making sales to receive commission, the legal restrictions, the ethical pressures and the challenge of selling an intangible product (Inderst, 2011; Marshall, Goebel, & Moncrief, 2003; Mc Manus & Kelly, 1999). For example, life insurance brokers, a division of financial services, are responsible for helping clients plan for unexpected circumstances (Mc Manus & Kelly, 1999). Life insurance is an intangible product that has an immediate cost, yet no immediate tangible benefits (Mc Manus & Kelly, 1999). Furthermore, individuals generally do not like to think about death, as Fautsch (2007) stated, "The whole premise of life insurance is based on the fear that something tragic may happen to you and leave your loved ones with nothing" (pp.13-14). As a result of these numerous challenges within the field, the industry is plagued with an excessively high level of staff turnover. Trends dating back to 1964 indicate that on average around 50% of new recruits leave within their first year of financial services and 70-80% leave within the first three years (Mayer & Greenberg, 1964; Mc Manus & Kelly, 1999; Mellor, 2012; Seligman, 1998). This trend remains evident today in the United States, Australia and New Zealand (Mellor, 2012).

High staff turnover is a financial burden for financial service organisations. The recruitment cost of advisors alone is approximately 50 percent of the average $66,580 USD annual salary (Aziz & Tronzo, 2011; Lounsbury, Gibson, & Hamrick, 2004a). The cost of staff turnover also extends to lost sales, reduced company reputation, poor team morale and reduced productivity (Stovel & Bontis, 2002). There are also costs associated with the loss of investment in time, money and energy involved in recruiting, selecting, training and supervising

unsuccessful advisors, only to repeat the process with the replacement (Atchinson, 2005; Seligman, 1998). As a result, financial service organisations worldwide lose millions of dollars annually due to their inability to select individuals who are likely to succeed in the industry (Seligman, 1998). Furthermore, the high staff turnover creates a humanitarian issue as the majority of individuals who enter the profession often end up failing (Seligman, 1998). This creates high demand for a tool that can assist in selecting individuals who are likely to survive and succeed in financial services.

Historically, the field has had an unrestricted low barrier of entry with 'anyone willing to have a go' being the only selection criterion (Mc Manus & Kelly, 1999; Seligman, 1998). Other selection methods in the field include the use of simplistic bio-data instruments (Barrick & Mount, 1991; Conte & Gintoft, 2005; Mc Manus & Kelly, 1999). Consequently, a market exists for a valid screening instrument that can assist in identifying individuals that are more likely stay and be committed to the financial services industry.

Background of the OnFire Measure

Based on the above considerations, a New Zealand consulting firm developed a psychometric measure for use when recruiting, selecting and developing financial advisors. The measure was designed to help predict the survival and success of advisors within the field of financial services. The measure contained six scales developed deductively from theoretical constructs identified within academic literature and anecdotal data from within the field. The measure was named the OnFire Employment Questionnaire, which is an acronym for the five initial scales of Optimism, Norm Following, Influence, Resilience and

Extraversion. A Drive scale was added at a later date. The measure has been in used in New Zealand for over two years, with subjective accounts of success (D. McMillan & L. McMillan, personal communication, August 11, 2011). The OnFire developers' analyses of the measure resulted in the removal of skewed or overlapping items and editing items to increase the face-validity of the measure. However, higher-level analysis needed to be conducted on the OnFire measure to assess its validity and reliability. The developers therefore approached the University of Waikato and provided the opportunity to engage in psychometric validation of the OnFire measure.

Purpose of the Current Study

The purpose of the current study was to psychometrically validate the six scales within the OnFire measure. The scales are based on personality dispositions that result in behavioural tendencies. In brief, drive is related to an individual's disposition to exert a high level of effort toward achieving goals, extraversion is the tendency to rely on external sources for stimulation, influence is the ability to persuade others, and norm following is an individual's tendency towards rule following, conformity, impression management and collectivism. Finally, optimism is an individual's belief or expectancy that the future holds more favourable outcomes, and resilience is the ability to 'bounce back' from negative outcomes. These six variables were included within the OnFire measure due to their relevance in assisting advisors to survive and succeed within the financial services industry.

The psychometric validity of the OnFire scales was determined by assessing them in relation to four main objectives: (a) factor analysis, (b)

convergent validity, (c) integrity of the nomological network and (d) criterion-related validity. Factor analysis involves assessing the factor structure, response distribution and alpha reliability to assess the internal consistency of each of the six scales within the measure. Evaluating convergent validity involves assessing the correlation of the scales with previously established measures of the same, or similar, constructs (Cavana, Delahaye, & Sekaran, 2001). Assessing the integrity of the nomological network involves examining the predicted intercorrelations between the OnFire scales as determined by the nomological network. Finally, determining criterion-related validity involves examining the correlation between the OnFire scales and the criterion-related measure, the industry tenure and industry commitment of advisors within the field of financial services. All of these factors were taken into consideration in order to determine the soundness and psychometric validity of the OnFire scales.

The Nomological Network of the OnFire Variables

The current chapter describes the process of construct explication to embed each of the six constructs included in the OnFire Measure within a nomological network. Cronbach and Meehl (1955) developed the concept of the nomological network as a method to determine the construct validity of psychological tests. Building a nomological network involves clarifying the concept, establishing theoretical propositions, identifying observable manifestations and operationalising the construct by determining linkages to other theoretical or empirical frameworks (Clark & Watson, 1996; Cronbach & Meehl, 1955). The nomological network will be used to justify and explain the theoretical rationale for including each of the six variables within the OnFire questionnaire.

Presented alphabetically, the content domain of each of the six OnFire scales and their relevance to financial advisors will be examined. This will provide a sound framework for psychometric validation of the OnFire measure.

Drive

Drive is often defined in relation to observable behaviour manifestations such as working long hours, having high energy, being persistent, taking initiative, staying on task, meeting deadlines and achieving success (Lounsbury, Park, Sundstrom, Williamson, & Pemberton, 2004c; Sharpe, Martin, & Roth, 2011; Williams, 1992). However, in essence, drive is related to an individual's disposition to engage in goal-directed behaviour that requires them to exert a high level of effort into achieving success (Kirkpatrick & Locke, 1991; Lounsbury et al., 2004a; Peterson & Seligman, 2004; Ridgell & Lounsbury, 2004).

Construct Validity: Relevance to Financial Advisors

Drive is a desired characteristic that for decades has been sought after within sales environments, including financial services (Churchill, Ford, Hartley, & Walker, 1985; Marshall et al., 2003; Mayer & Greenberg, 1964; Peterson & Seligman, 2004). Research highlights the importance of individuals within the financial services industry, particularly insurance sales, having a high level of drive (Churchill, Ford, Hartley, & Walker, 1985; Marshall, Goebel, & Moncrief, 2003; Mayer & Greenberg, 1964; Peterson & Seligman, 2004). The importance of drive has been emphasised for over 60 years, with research on insurance agents during the 1950s asserting that successful agents have a strong drive for success (Wispe, 1957 cited in Bass, 1990).

Drive is also relevant to financial advisors due to its relationship with various performance outcomes. As Peterson and Seligman stated "[Drive] does not guarantee success, but success is often unattainable without it" (p.229). Barling et al.'s (1990) study on insurance brokers found that achievement striving, a construct that conceptually overlaps with drive, was positively associated with the total number of insurance policies sold during a 12 month period. In addition, in a sample of financial service representatives, bank tellers and loan officers, Lounsbury et al. (2004a) found that drive significantly contributed to the prediction of job performance (r =.49, p<0.01). Furthermore, individuals high in drive have been found to be more willing than others to do whatever it takes to meet job demands (Lounsbury et al., 2004a; Lounsbury, Smith, Levy, Leong, & Gibson, 2009). This might include working extended hours and taking less holidays in order to fulfil company goals and increase their productivity (Lounsbury et al., 2004a; Lounsbury et al., 2009).

The nomological network therefore asserts drive's relevance for financial advisors. In particular, drive is important as it is a sought after characteristic that can influence performance outcomes. The nomological network thereby justifies the inclusion of drive in the OnFire measure.

Relationships with Theoretically Related Constructs:

Convergent Validity

Determining convergent validity is an important step of psychometric validation as it provides evidence that the scale measures the intended construct (Cohen & Swerdlik, 2010). The convergent measure adopted for the OnFire Drive

scale was Goldberg et al.'s (2006) International Personality Item Pool Industry/Perseverance/Persistence scale.

The International Personality Item Pool (IPIP) is a collaborative development of personality scales operating within the public domain for use within the commercial and scientific community (Goldberg et al., 2006). IPIP contains over 2000 items developed with the aim of creating an accessible scientifically reasonable taxonomy of personality traits that can be further developed and refined without infringing upon copyright restrictions (Arneson, Millikin-Davies, & Hogan, 1993; Jackson, Colquitt, Wesson, & Zapata-Phelan, 2006; Jaramillo, Mulki & Solomon, 2006). The items have been arranged into over 300 scales based on the constructs from major commercial inventories (Goldberg et al., 2006). The scales were designed to serve as freely accessible proxies or alternatives to popular psychometric inventories (Goldberg et al., 2006). As a result, the inclusion of IPIP scales in the literature is rapidly expanding with numerous scientific studies reporting their usage (Goldberg et al., 2006).

The IPIP Industry/Perseverance/Persistence scale was derived from Peterson and Seligman's (2004) Values in Action (VIA) inventory (Goldberg et al., 2006). The VIA inventory was developed to assist in identifying an individual’s unique profile of character strengths (Peterson & Seligman, 2004). Industry/Perseverance/Persistence is defined as the voluntary continuation of goal-directed actions in spite of obstacles (Peterson & Seligman, 2004). As the IPIP Industry/Perseverance/Persistence scale was used as a proxy for drive, to maintain clarity the scale will be herein referred to as IPIP Drive. Therefore, in

order to achieve convergent validity and embed drive within the nomological network, the following prediction was established:

H1A: The OnFire Drive scale will be positively and significantly correlated with the IPIP Drive scale.

Relationships with Theoretically Related Constructs:

OnFire Correlations

Drive is predicted to have a significant relationship with a number of other variables included within the OnFire questionnaire. In particular, drive has been found to have a significant correlation with extraversion in both the NEO-PIR (r =.24, p<0.01) and the MBTI (r =.36, p<0.01, Lounsbury et al., 2004a). This may be attributed to drive and extraversion sharing observable behaviours of high energy and enthusiasm, often manifested in work related aspects (Burke, Matthiesen, & Pallesen, 2006).

A positive correlation has also been identified between drive and resilience (r =.20, p<0.01, Lounsbury et al., 2004a). This may be attributed to their shared emphasis on persisting, even in the face of obstacles (Bernard et al., 2008; Byers, Kiehl, Sole, & Ahern, 2006; Lounsbury et al., 2004a, 2004c; Peterson & Seligman, 2004). This lead to the following predictions:

H2A: The OnFire Drive scale and the OnFire Extraversion scale will be positively and significantly correlated.

H2B: The OnFire Drive scale and the OnFire Resilience scale will be positively and significantly correlated.

Drive and Financial Advisors' Industry Commitment and Tenure

Prior research has identified a relationship between drive and factors that can influence an employee's industry commitment and tenure. Industry tenure is defined as how long an individual has been in the financial service industry, whereas industry commitment is related to an individual's intention to stay, determined by their commitment to the industry. Factors that influence an employee's industry commitment and tenure that have also been linked to drive include job satisfaction (r =.24, p<0.01, Lounsbury et al., 2004a; r =.20, p<0.01, Lounsbury, Moffitt, Gibson, Drost, & Stevens, 2007b) and career satisfaction (r =.35, p<.0.01, Lounsbury et al., 2004a; r =.21, p<.0.01, Lounsbury et al., 2007b). Previous research has established a significant relationship between these two factors and industry commitment and tenure (Blau, 2007, 2009; Duffy et al., 2011). It was therefore predicted that the OnFire Drive scale would be significantly related to the industry commitment and tenure of financial advisors.

H3A: The OnFire Drive scale will be positively and significantly correlated with industry commitment.

H4A: The OnFire Drive scale will be positively and significantly correlated with industry tenure.

Extraversion

Extraversion is labelled as one of the basic dimensions of human temperament and has been included within every major personality taxonomy within the past 50 years (Jung, 1921 cited in Coan, 2004; Lucas, Diener, Grob,

Suh, & Shao, 2000; Oviedo-García, 2007; Witt, 2002). Individuals high in extraversion have the tendency to rely on external stimuli in order to reach their optimal level of arousal (Barrick & Mount, 1993; Caruso & Gottlieb, 2004). As a result, extraverts are often linked to traits such as gregariousness, high energy, sociability, assertiveness, outgoingness, strong social skills and a preference for human contact (Barrick & Mount, 1991; Burke et al., 2006; Caruso & Gottlieb, 2004; Judge et al., 1999; Nyhus & Pons, 2005; Witt, 2002).

Construct Validity: Relevance to Financial Advisors

Primary aspects within a financial advisor's job description include 'prospecting' to obtain new clients and sell financial products or services (Eswaran, Islam, & Yusuf, 2011; Inderst, 2011; O*NET, 2010, 2011; Reid, Pullins, & Plank, 2002). These tasks require advisors to exercise sales skills (Eswaran et al., 2011; Inderst, 2011; O*NET, 2010, 2011; Reid et al., 2002).. Individuals involved in sales are described as prototypical extraverts (Costa & McCrae, 1992; Oviedo-García, 2007). Consequently, extraversion and its associated sub-characteristics have been traditionally considered as an essential characteristic for salesperson success (Costa & McCrae, 1992; Oviedo-García, 2007). The importance of extraversion within financial services roles can be attributed to individuals needing to feel comfortable with the level of interpersonal interaction required to successfully perform the job (Barrick & Mount, 1991; Churchill et al., 1985; Fudge & Furnham, 2008; Mc Manus & Kelly, 1999; Oviedo-García; Witt, 2002).

Extraversion is also relevant to financial advisors due to its impact on performance outcomes. Mc Manus and Kelly (1999) conducted a study where

supervisors were required to rate the sales task performance of insurance sales representatives. The study identified a positive correlation between extraversion with contextual performance ratings (r =.28, p<0.05) and extraversion with sales task performance ratings (r =.22, p<0.05, Mc Manus & Kelly, 1999). In addition, Conte and Gintoft's (2005) study of sales associates found a significant correlation between extraversion and supervisors' ratings of customer service (r =.27, p<0.01) and sales performance (r =.20, p<0.01). Finally, Barrick and Mount (1991) also found extraversion to be a valid predictor of performance within managerial and sales jobs.

The nomological network therefore asserts the relevance of extraversion to financial advisors. Specifically, extraversion is important as advisors are required to be comfortable with the high level of social interaction on the job. Extraversion has also been linked to various performance outcomes, particularly within sales environments such as financial services. The nomological network thereby justifies the inclusion of extraversion in the OnFire measure.

Relationships with Theoretically Related Constructs:

Convergent Validity

The convergent measure adopted for the OnFire Extraversion scale was Goldberg's et al. (2006) IPIP Extraversion scale. The IPIP Extraversion scale was developed as an alternative for the construct of extraversion within Costa and McCrae's (1992) NEO Five-Factor Inventory. Individuals high in extraversion are defined by characteristics such as sociability, liking people, excitement seeking, preferring large groups and being assertive, active, talkative, cheerful and energetic (McCrae & Costa, 2010). In order to achieve convergent validity and

embed extraversion within the nomological network, it was predicted that the OnFire Extraversion scale would be positively correlated with the IPIP Extraversion scale.

H1B: The OnFire Extraversion scale will be positively and significantly correlated with the IPIP Extraversion scale.

Relationships with Theoretically Related Constructs:

OnFire Correlations

A significant relationship was also predicted between extraversion and other variables included within the OnFire measure, including drive, influence and optimism. Ames et al. (2012) identified a significant correlation between extraversion and influence (r =.23, p<0.01). The rationale for this relationship between extraversion and influence can be contributed to the social skills aspect of extraversion being an important part of influencing others (Mueller-Hanson et al., 2007; Slowikowski, 2003; Suzik, 2000).

A significant relationship has also been identified between extraversion and optimism. A significant correlation was established between extraversion and optimism by Williams (1992) (men r =.43, p<0.001, women r =.23, p<0.05) and Lounsbury, Park, Sundstrom, Williamson and Pemberton (2004c) (r =.44, p<0.01). Sharpe, Martin and Roth's (2011) study also found a significant correlation between optimism and extraversion using the NEO Five-Factor Inventory (r =.48, p<0.01), NEO-PI-R (r =.60, p<0.01), Ten Item Personality Inventory (r =.29, p<0.01) and the International Personality Item Pool (r =.35, p<0.01). The rationale for the relationship between extraversion and optimism

was attributed to the tendency of optimists to be more socially adept than non-optimists (Sharpe et al., 2011). In addition to OnFire Extraversion scales previously stated hypothesis with OnFire Drive (see H2A on p.9), the following hypotheses were also established:

H2C: The OnFire Extraversion scale and the OnFire Influence scale will be positively and significantly correlated.

H2D: The OnFire Extraversion scale and the OnFire Optimism scale will be positively and significantly correlated.

Financial Advisors' Industry Commitment and Tenure

Prior research has identified a relationship between extraversion and various factors that influence an employee's tenure and commitment to the industry. These factors include job satisfaction (r =.22, p<0.05, Lounsbury et al., 2007b; r =.37, p<0.01, Miller, Mire, & Kim, 2009), career satisfaction (r =.31, p<0.05, Lounsbury et al., 2007b), work involvement (r =.18, p<0.05, Burke et al., 2006; Eswaran et al., 2011) and intention to quit (r =-.28, p<0.01, Avey, Luthans, & Youssef, 2009). Previous research has established a significant relationship between these four factors and industry commitment and industry tenure (Aryee & Tan, 1992; Blau, 1989, 2007, 2009; Chang, 1999; Duffy et al., 2011). The following predictions were developed accordingly:

H3B: The OnFire Extraversion scale will be positively and significantly correlated with industry commitment.

H4B: The OnFire Extraversion scale will be positively and significantly correlated with industry tenure.

Influence

Influence is defined as the process of impacting or modifying an individual's actions, behaviours, attitudes or beliefs through interaction and communication (Durán, 2011; Inderst, 2011; Wheeler, 1970). Within financial services, being influential is the ability to actively lead an individual to a decision though persuasion.

Construct Validity: Relevance to Financial Advisors

A large part of a financial advisor's role involves prospecting to find new customers and providing advice to clients, thereby selling their products or services (Eswaran et al., 2011; Inderst, 2011; O*NET, 2010, 2011; Reid et al., 2002). The importance of giving effective advice was evident from a UK study finding that 91% of mortgage, mutual funds and equities sales and purchases were based on financial advice (Inderst, 2011). Banks and financial institutions are in competition with each other, with customers making comparisons and following the better quality service and advice (Eswaran et al., 2011; Reid et al., 2002). Often, clients are not directly charged for the advice they receive and therefore financial advisors must rely on the effectiveness of their advice for it to follow through into monetary gains such as new clientele, purchases or transactions (Inderst, 2011). Consequently, it is crucial that financial advisors give highly persuasive advice, thus requiring the ability to influence and convince clients to

make the right decisions (Churchill et al., 1985; Dalton, 2002; Dreyer, 1997; Fautsch, 2007; Inderst, 2011; Reilly, 2004; Reischi, 2001).

Influence is also important for financial advisors due to its relationship with various performance outcomes. Dalton's (2002) study of financial services companies showed how sales staff high in persuasiveness out-performed average staff by ten to one. Dalton therefore emphasised that selecting persuasive individuals is beneficial for financial companies due to their tendency to become top performers. Furthermore, non-persuasive individuals often become dissatisfied, produce a lower level service and eventually quit (Dalton, 2002). Therefore, persuasiveness, a behaviour manifestation of influence, is important for financial advisors as it can help financial sales organisations to be more cost-effective by helping to prevent losses in revenue, investment and replacement (Dalton, 2002).

The nomological network asserts the relevance of influence for financial advisors. This is related to the importance of advisors giving persuasive advice and its impact on performance outcomes. The nomological network thereby justifies the inclusion of Influence in the OnFire measure.

Relationships with Theoretically Related Constructs:

Convergent Validity

The convergent measure adopted for the OnFire Influence scale was Goldberg et al.'s (2006) IPIP Assertiveness scale. As far as could be determined, no psychometrically validated measure of influence was on the market at the time of this research. IPIP Assertiveness was adopted due to influence and assertiveness sharing emphasis on leading others. The IPIP Assertiveness scale

was derived from the Assertiveness construct within Costa and McCrae's (1992) NEO Personality Inventory – revised (NEO-PI-R). Assertiveness is a sub-facet of the Extraversion domain and is defined in terms of social ascendance, leadership and speaking without hesitation (McCrae & Costa, 2010). As Costa and McCrae's definition of assertiveness overlaps with the OnFire's Influence, a positive correlation was predicted. Since the IPIP Assertiveness scale was used as a proxy for influence, to maintain clarity the scale will be herein referred to as IPIP Influence. Therefore, to embed influence within the nomological network and to achieve convergent validity, it was predicted the OnFire Influence scale would be positively correlated with the IPIP Influence Scale:

H1C: The OnFire Influence scale will be positively and significantly correlated with the IPIP Influence scale.

Relationships with Theoretically Related Constructs:

OnFire Correlations

As previously discussed, the nomological network hypothesised a significant relationship between the OnFire Influence scale and the OnFire Extraversion scale (see H2C on p.14).

Financial Advisors' Industry Commitment and Tenure

Prior research has identified a relationship between assertiveness, a construct that conceptually overlaps with influence, and factors that impact an employee's industry commitment and tenure. These factors include job satisfaction (r =.22, p<0.01) and career satisfaction (r =.33, p<0.01, Lounsbury et

al., 2007b). Previous research has established a significant relationship between these two factors and industry commitment and tenure (Blau, 2007, 2009; Duffy et al., 2011). It was therefore predicted that OnFire Influence scale would be significantly correlated with advisor's industry commitment and tenure.

H3C: The OnFire Influence Scale will be positively and significantly correlated with industry commitment.

H4C: The OnFire Influence Scale will be positively and significantly correlated with industry tenure.

Norm Following

Within the context of the OnFire questionnaire, norm following is defined as an amalgamation of rule following, conformity, impression management and collectivism. Norm following involves an individual actively changing their behaviour in order to match the behaviour of others, obtain social approval, foster group harmony, follow expected belief modes and comply with rules (Cialdini & Goldstein, 2004; Hewlin, 2009; Jackson, Colquitt, Wesson, & Zapata-Phelan, 2006; Wheeler, 1970). For the purpose of the OnFire questionnaire, norm following is relevant in relation to an individual's likelihood to engage in ethical behaviour and conduct business according to high standards of honesty and fairness.

Construct Validity: Relevance to Financial Advisors

Ethical conduct is strongly emphasised within financial services due to the vulnerability of the industry to legal and ethical abuses (Gentile, 2010; Inderst,

2011; Jaramillo et al., 2006; Lamb, 1999). Financial advisors are continually faced with a number of ethical pressures and often encounter conflicts of interest between self-interest and customer loyalty (Scheier & Carver, 1985). As advisors often rely on clients accepting their recommendations in order to receive compensation, this can present the temptation to engage in unethical practices in order to coerce investment (Inderst, 2011; Jaramillo et al., 2006; Lamb, 1999). This might include pushing a product regardless of its true merit, misrepresenting products, talking down competition products, misreporting figures and routinely replacing policies in order to obtain additional commissions (Atchinson, 2005; Chakraborty & Harbaugh, 2010; Inderst, 2011). Furthermore, as customers are often naïve about how advisors are compensated, advisors can exploit this by increasing product prices, distribution fees and their commission to give the illusion of an inexpensive service while short-changing clients (Inderst, 2011). The industry is also susceptible to other serious ethical breaches including fraudulent brokers and insider trading (Atchinson, 2005; Inderst, 2011). Lamb (1999) argues that the context in which the industry operates intensifies the allurement to engage in unethical acts, as the emphasis on the 'maximisation of money' reinforces the desire to "succumb to selfish unethical acts" in order to increase financial gains (p.13).

Financial advisors need to act ethically not only to protect customers, but also to avoid litigation and protect the integrity of the industry as a whole (Atchinson, 2005; Burks & Krupka, 2012; Inderst, 2011; Lamb, 1999; Reischi, 2001). Selling non-tangible products requires consumers' trust, and unethical behaviour can be detrimental to the industry's reputation (Atchinson, 2005; Burks & Krupka, 2012; Lamb, 1999). This lesson was learned in the 1990s when many

United States life insurers faced litigation due to the misrepresentation of products (Atchinson, 2005; Inderst, 2011). This resulted in the rapid destruction of the industry reputation and a complete overhaul of retail financial-service regulations (Atchinson, 2005; Inderst, 2011).

Individuals high in norm following have the tendency to be 'real sticklers for rules' and are more easily able to conform to ethical guidelines (Creelman, 2010). On the other hand, individuals low in norm following are likely to object to the rules and detailed processes the role requires (Creelman, 2010). As reluctant conformists, individuals low in norm following are likely to become emotionally exhausted and dissatisfied by the substantial amount of rules and regulations within financial services (Schulman, 1999; Seligman, 1998). This increases their likelihood to disregard the rules, cut-corners or leave the industry (Schulman, 1999; Seligman, 1998). Selecting individuals high in norm following for financial advisor roles will help to ensure that individuals are more effortlessly able to conform to rules and conduct their business according to high standards of honesty and fairness (Atchinson, 2005).

Norm following has also been linked to various performance outcomes. Arneson, Millikin-Davies and Hogan's (1993) study of claims examiners found that integrity, a sub-characteristic of norm following, was significantly related to supervisors' ratings of examiners' initiative (r =.64, p<0.01), accuracy/quality (r =.42, p<0.01) and overall job performance (r =.49, p<0.01).

The nomological network therefore asserts the relevance of norm following for financial advisors. This is attributed to advisors' susceptibility to unethical practices and the influence norm following can have on performance

outcomes. The nomological network thereby justifies the inclusion of Norm Following in the OnFire measure.

Relationships with Theoretically Related Constructs: Convergent Validity

The convergent measure adopted for the OnFire Norm Following scale was Goldberg et al.'s (2006) IPIP Conformity scale. The IPIP Conformity scale was derived from the construct of 'Cooperativeness' from the revised Jackson Personality Inventory (Goldberg et al., 2006). The Jackson Personality Inventory was developed to measure individuals' interpersonal, cognitive and value orientations for the purpose of assisting in the prediction of behaviour in a range of contexts (Jackson, 1994). Individuals high in cooperativeness are described as being compliant and agreeing, with the tendency to modify their behaviour to be consistent with the standards set by others (Jackson, 1994). On the other hand, individuals low in cooperativeness are described as unconforming and self-directed due to their independence in thoughts, actions and refusal to "go along with the crowd" (Jackson, 1994, p. 4). As the IPIP Conformity scale was used as a proxy for norm following, to maintain clarity the scale will be herein referred to as IPIP Norm Following. Therefore, in order to achieve convergent validity and embed norm following within the nomological network, it was predicted that the OnFire Norm Following scale and IPIP Norm Following scale would be significantly positively correlated:

H1D: The OnFire Norm Following scale will be positively and significantly correlated with the IPIP Norm Following scale.

Relationships with Theoretically Related Constructs:

OnFire Correlations

A review of the literature failed to identify any research that predicted a significant relationship between norm following and all the other five criterion variables included within the OnFire Questionnaire. Consequently, no hypotheses relating to Norm Following intercorrelations with the other OnFire scales were developed.

Financial Advisors' Industry Commitment and Tenure

Prior research has identified a relationship between norm following and various factors that can influence an employee's industry commitment and tenure. These factors include job satisfaction (r =.43, p<0.05, Jaramillo et al., 2006; Burks & Krupka, 2012), organisational commitment (r =.43, p<0.05, Jaramillo et al., 2006) and turnover intentions (r =-.38, p<0.05, Jaramillo et al., 2006). Previous research has established a significant relationship between these three factors and industry commitment and tenure (Aryee & Tan, 1992; Blau, 1989, 2007, 2009; Chang, 1999; Duffy et al., 2011). It was therefore predicted that OnFire Norm Following would be significantly correlated with financial advisors commitment and tenure within the industry:

H3D: The OnFire Norm Following scale will be positively and significantly correlated with industry commitment.

H4D: The OnFire Norm Following scale will be positively and significantly correlated with industry tenure.

Optimism

Optimism is defined as an individual's belief or expectancy that the future holds more favourable opportunities and outcomes than unfavourable ones (Brown & Taylor, 1988; Burke, Czech, Joyner, & Wilson, 2000; Dixon et al., 2003; Peterson & Park, 2004; Scheier & Carver, 1985). Optimism encompasses cognitive, emotional and motivational factors that lead an individual to emphasise the positive aspects in life, even in the face of hardships and uncertainty (Burke et al., 2000; McKay, 2009; Medlin & Green, 2009; Peterson & Park, 2004). Optimism represents a bias in perception and expectations that often leads an individual to act in ways that make these beliefs more likely to occur through goal directed behaviours (Peterson & Park, 2004). As a result, optimistic individuals have demonstrated higher levels of motivation, persistence and performance (Burke et al., 2000).

Construct Validity: Relevance to Financial Advisors

Financial advising is arduous due to frequent rejections agents receive from prospective clients (Corr & Gray, 1996; Dixon, Spiro, & Forbes, 2003; Rich, 1999; Schulman, 1999; Seligman, 1998; Yang et al., 2011). Advisors can become discouraged by the inevitable adversity of repetitive rejections and as a result become demotivated, have reduced productivity and consequently quit (Schulman, 1999; Seligman, 1998). To avoid discouragement, financial advisors require a high level of optimism. High optimism facilitates cognitions that attribute rejection to external factors, as opposed to internal deficiencies, and enables them to develop an expectancy for future success (Corr & Gray, 1996; Dixon et al., 2003; Rich, 1999; Schulman, 1999; Seligman, 1998). This

expectancy would allow advisors to brush-off rejections and continue with increased effort, maintained confidence, motivation and perseverance (Corr & Gray, 1996; Dixon et al., 2003; Rich, 1999; Schulman, 1999; Seligman, 1998). As Rich (1999) stated:

> Pessimists get discouraged and gloomy after a stretch of unsuccessful cold calls, and start looking for excuses to end the day early. Optimists, however, remain enthusiastic and continue to believe that the next call will result in a sale. Eventually, they are right. (p.53)

Moreover, optimistic individuals generally have higher motivation, persistence and stress management ability and lower depression and work/non-work conflict (Burke et al., 2000; Corr & Gray, 1996; Dixon et al., 2003; Jensen, Luthans, Lebsack, & Lebsack, 2007; Medlin & Green, 2009; Neidermeyer & Tuten, 2004; Youssef & Luthans, 2007). Furthermore, empirical research demonstrates that regardless of how optimism is measured, it is generally associated with favourable outcomes (Peterson & Park, 2004). Consequently, optimism is considered an important prerequisite for success within high stress positions and is therefore recommended for consideration in selection decisions within financial services (Rich, 1999; Schulman, 1999; Seligman, 1998).

Highly optimistic individuals have also demonstrated higher levels of performance within multiple settings and samples (Burke et al., 2000; Corr & Gray, 1996; Jensen et al., 2007; Medlin & Green, 2009; Neidermeyer & Tuten, 2004; Rich, 1999; Seligman, 1998; Youssef & Luthans, 2007). For example, Medlin and Green's (2009) study found workplace optimism to be significantly related to individuals' performance (r =.64, p<0.01). Corr and Gray's (1996) study of experienced financial services salespeople in a UK insurance company found that positive attributional style, a form of optimism, was positively correlated with

performance rankings (r =.27, p<0.01) and sales performance (r =.23, p<0.01). Rich's (1999) study of salespeople from a variety of industries, including financial services, found that optimism significantly influenced manager-assessed in-role performance (r =.30, p<0.01). Youssef and Luthans (2007) found that optimism was significantly related to self-rated performance (r =.16, p<0.01) and objective performance measures (r =.23, p<0.01). Jensen et al. (2007) studied the relationship between bank managers' optimism and their supervisory performance appraisals and found a positive relationship between optimism and their supervisors' evaluated performance (r =.46, p<0.05), self-evaluated overall performance (r =.47, p<0.05) and self-evaluated performance comparisons to co-workers (r =.52, p<0.01). Finally, Seligman's (1998) study of Metropolitan Life Insurance sales staff found that the most productive staff were highly optimistic and sold an average of 37% more insurance policies than their less optimistic counterparts. Furthermore, optimistic individuals had significantly less turnover, with staff low in optimism being three times more likely to quit (Seligman, 1998). In addition, after selecting individuals high in optimism for the role, individuals with the highest ratings of optimism sold 50% more policies than agents with the lowest optimism (Seligman, 1998). Seligman consequently concluded that optimism was an essential characteristic predicting the success of recruits within the life-insurance sales industry. This provides compelling evidence that high optimism is likely to lead to higher employee performance within the financial services industry.

The nomological network therefore asserts the relevance of optimism for financial advisors. In particular, optimism is important due to the high level of rejection advisors receive and the influence of optimism on performance

outcomes. The nomological network thereby justifies the inclusion of optimism within the OnFire measure.

Relationships with Theoretically Related Constructs:

Convergent Validity

The convergent measure adopted for the OnFire Optimism scale was Goldberg et al.'s (2006) IPIP Optimism scale. The IPIP Optimism scale measures facets similar to those contained within Scheier and Carver's (1985) Life Orientation Test (Goldberg et al., 2006). The Life Orientation Test was developed to measure dispositional optimism (Scheier & Carver, 1985). Individuals high in optimism are categorised by the generalised expectation that positive outcomes are more likely to occur in their life, whereas individuals low in optimism have the tendency to anticipate negative outcomes (Scheier & Carver, 1985). In order to assess convergent validity and embed optimism within the nomological network, it was predicted that the OnFire Optimism scale and the IPIP Optimism scale would be significantly and positively correlated.

H1E: The OnFire Optimism scale will be positively and significantly correlated with the IPIP Optimism scale.

Relationships with Theoretically Related Constructs:

OnFire Correlations

The nomological network also hypothesises a significant relationship between optimism and other variables included within the OnFire measure, such as extraversion and resilience. Youssef and Luthans (2007) identified a significant

positive correlation between optimism and resilience (r =.39, p<0.01). This relationship was attributed to their shared emphasis on endurance in the face of obstacles (Avey et al., 2009). Therefore, in addition to optimism's previously discussed hypothesis with OnFire Extraversion (see H2D on p.14), the following prediction was set:

> *H2E: OnFire Optimism scale and the OnFire Resilience scale will be positively and significantly correlated.*

Financial Advisors' Industry Commitment and Tenure

Prior research has identified a relationship between optimism and factors that influence an employee's commitment and tenure within an industry. These factors include job satisfaction (r =.44, p<0.05, Jensen et al., 2007; r =.34, p<0.01, Youssef & Luthans, 2007; r =.34, p<0.05, Lounsbury et al., 2007b) and career satisfaction (r =.36, p<0.01, Lounsbury et al., 2004; r =.40, p<0.05, Lounsbury et al., 2007b). Previous research has established a significant relationship between these two factors and industry commitment and tenure (Blau, 2007, 2009; Duffy et al., 2011). Furthermore, research by Seligman (1998) established that selecting individuals high in optimism could significantly reduce staff turnover within the industry. This suggests that individuals high in optimism may be more likely to stay and be committed to the industry. It was therefore predicted that optimism would be significantly correlated with advisor's commitment and tenure within the financial services industry.

H3E: The OnFire Optimism scale will be positively and significantly correlated with industry commitment.

H4E: The OnFire Optimism scale will be positively and significantly correlated with industry tenure.

Resilience

The personality disposition of resilience is grounded in genetic, biological, psychological and environmental factors (Byers et al., 2006; Campbell-Stills & Stein, 2007). Resilience is widely accepted as an individual's ability to actively cope or 'bounce back' from adversity (Bernard et al., 2008; Byers et al.; Envick, 2005; Wagnild, 2010; Youssef & Luthans, 2007). Individuals high in resilience are more easily able to adapt, learn and grow in response to negative setbacks than individuals low in resilience (Bernard et al., 2008; Byers et al., 2006; Envick, 2005; Wagnild, 2010; Youssef & Luthans, 2007).

Construct Validity: Relevance to Financial Advisors

Resilience is relevant for financial advisors due to the challenging nature of the field. As previously discussed, financial services is a tough industry as a result of the substantial number of rejections advisors receive from prospective clients (Seligman, 1998; Yang et al., 2011). For example, advisors are often required to make cold calls to potential clients to inquire if they are interested in receiving financial advice. On average, nine out of every ten calls the advisor makes will result in rejection (Seligman, 1998). Non-resilient advisors are likely to become discouraged from the continuous rejections, resulting in procrastination, reduced performance and often resignation (Dixon et al., 2003;

Seligman, 1998). Consequently, advisors need to be resilient in order to survive within the industry, as Seligman stated "Only those agents who keep making their ten calls each day, and don't get fazed by rejection, succeed." (pp. 97-98).

Individuals high in resilience not only have the ability to more greatly withstand setbacks, but often setbacks can lead to an increase in performance (Youssef & Luthans, 2007). As Youssef and Luthans stated:

> … recent analyses by organizational scholars suggest that resilient people can thrive and grow through set-backs and difficulties. They bounce back not only to their original but to even higher levels of performance, and find meaning and value in their lives in the process. (p.154).

Consequently, resilience has been found to have a significant relationship with various performance outcomes. For example, Youssef and Luthans found that resilience was related to subjective performance ratings (r =.14, p<0.01). Luthans et al.'s (2005) study also found a significant correlation between resilience and supervisor rated performance (r =.24, p<0.01). Finally, Luthans, Avolio, Avey and Norman (2007) found that resilience was significantly correlated with self-rated performance (r =.23, p<0.05). As Avey et al. stated "Resilient individuals, although facing the same potential stressors at work, may be less likely to perceive such stimuli as actual stress, or at least perceive them to a lesser degree." (p.47).

The nomological network therefore asserts the relevance of resilience for financial advisors. This is attributed to resilience buffering the high level of rejection received and its influence on various performance outcomes. The nomological network thereby justifies the inclusion of resilience in the OnFire measure.

Relationships with Theoretically Related Constructs: Convergent Validity

The convergent measure adopted for the OnFire Resilience scale was Wagnild's (2010) 14-Item Resilience scale. Wagnild (1993) developed the Resilience Scale to be the first self-report psychometric tool to directly measure the extent of an individual's resilience. Individuals high in resilience are characterised by their ability to more effectively cope with change or adversity than their low resilience counterparts (Wagnild, 2009a). In order to assess convergent validity and embed resilience within the nomological network, it was predicted that the OnFire Resilience scale and Wagnild's (2010) Resilience scale would show a positive and significant correlation.

H1F: The OnFire Resilience scale will be positively and significantly correlated with Wagnild's (2010) Resilience scale.

Relationships with Theoretically Related Constructs: OnFire Correlations

As previously discussed, the nomological network hypothesised a significant relationship between OnFire Resilience with OnFire Drive (see H2B on p.9), and OnFire Resilience with OnFire Optimism (see H2E on p.27).

Financial Advisors' Industry Commitment and Tenure

Prior research has identified a significant relationship between resilience and factors that influence an employee's industry tenure and commitment. These factors include job satisfaction (r =.24, p<0.05, Larson & Luthans, 2006; r =.36,

Lounsbury et al., 2007b; $p<0.05$ $r=.27$, $p<0.05$, Luthans et al., 2007; $r=.28$, $p<0.01$, Youssef & Luthans, 2007), career satisfaction ($r=.42$, $p<0.01$, Lounsbury et al., 2007b) and organisational commitment ($r=.25$, $p<0.05$, Larson & Luthans, 2006; $r=.12$, $p<0.01$ Youssef & Luthans, 2007). Previous research has established a significant relationship between these three factors and industry commitment and tenure (Aryee & Tan, 1992; Blau, 1989, 2007, 2009; Duffy et al., 2011). It was therefore predicted that resilience would be significantly correlated to the commitment and tenure of advisors within the financial services industry:

H3F: The OnFire Resilience scale will be positively and significantly correlated with industry commitment.

H4F: The OnFire Resilience scale will be positively and significantly correlated with industry tenure.

Summary of Aims and Hypotheses

In summary, the nomological network identified a number of predictions for each of the OnFire variables. This yielded support for the construct validity of the six scales and provided a solid framework for the psychometric validation of the OnFire measure. The study objectives and hypotheses identified by the nomological network are summarised below:

Factor Analysis

The first objective was to investigate the internal consistency of the OnFire scales by assessing factor structure, response distribution and alpha reliability of each of the six scales within the measure.

Convergent Validity

The second objective was to investigate the convergent validity of each of the six scales in the OnFire measure. Determining convergent validity is an important step in psychometric validation as it provides evidence that the scale corresponds with a previously established measure of the same, or similar, construct (Cohen & Swerdlik, 2010). It was therefore predicted that the OnFire scales would have a significant and positive correlation with previously established convergent measures.

H1A: The OnFire Drive scale will be positively and significantly correlated with the IPIP Drive scale.

H1B: The OnFire Extraversion scale will be positively and significantly correlated with the IPIP Extraversion scale.

H1C: The OnFire Influence scale will be positively and significantly correlated with the IPIP Influence scale.

H1D: The OnFire Norm Following scale will be positively and significantly correlated with the IPIP Norm Following scale.

H1E: The OnFire Optimism scale will be positively and significantly correlated with the IPIP Optimism scale.

H1F: The OnFire Resilience scale will be positively and significantly correlated with Wagnild's (2009) Resilience scale.

Integrity of the Nomological Network

The third objective was to assess the integrity of the nomological network to provide further evidence of construct validity. Various predicted intercorrelations between the OnFire variables were determined when developing the nomological network. Testing the intercorrelations between variables is an important step of psychometric validation as it determines the robustness of the developed nomological network. The nomological network consisted of the following predictions:

H2A: The OnFire Drive scale and the OnFire Extraversion scale will be positively and significantly correlated.

H2B: The OnFire Drive scale and the OnFire Resilience scale will be positively and significantly correlated.

H2C: OnFire Extraversion scale and the OnFire Influence scale will be positively and significantly correlated.

H2D: OnFire Extraversion scale and the OnFire Optimism scale will be positively and significantly correlated.

H2E: OnFire Optimism scale and the OnFire Resilience scale will be positively and significantly correlated.

Criterion-Related Validity

The fourth objective was to evaluate the criterion-related validity by simultaneously measuring the level of industry commitment and tenure. Criterion-related validity is an important step of psychometric validation as it determines how adequately a scale can infer an individual's most probable tendency towards

a measure of interest, in this case, financial advisors' industry commitment and tenure (Cohen & Swerdlik, 2010).

Industry tenure was included to be a direct measure of survival within the field and was measured by asking respondents how long they had been in the industry. Industry commitment was included to be a measure of intention to stay within the industry that is unbiased by factors such as staying due to continuance commitment, normative commitment, or fear of change (Blau, 1989). Industry commitment was determined using a self-report scale designed to measure an individual's commitment towards their vocation, profession or industry (Blau, 1989).

Due to the high level of turnover of financial advisors within the first three years of working in the industry, determining an individual's predisposition to industry commitment is extremely important (Mc Manus & Kelly, 1999; Mellor, 2012; Seligman, 1998). Consequently, it was predicted that the scores on the six OnFire measures would have a positive and significant correlation with industry commitment.

H3A: The OnFire Drive scale will be positively and significantly correlated with industry commitment.

H3B: The OnFire Extraversion scale will be positively and significantly correlated industry commitment.

H3C: The OnFire Influence scale will be positively and significantly correlated with industry commitment.

H3D: The OnFire Norm Following scale will be positively and significantly correlated with industry commitment.

H3E: The OnFire Optimism scale will be positively and significantly correlated with industry commitment.

H3F: The OnFire Resilience scale will be positively and significantly correlated with industry commitment.

The final objective was to evaluate the criterion-related validity by establishing the relationship between the OnFire variables and industry tenure. It was predicted the six OnFire measures would have a positive and significant correlation with industry tenure.

H4A: The OnFire Drive scale will be positively and significantly correlated with industry tenure.

H4B: The OnFire Extraversion scale will be positively and significantly correlated industry tenure.

H4C: The OnFire Influence scale will be positively and significantly correlated with industry tenure.

H4D: The OnFire Norm Following scale will be positively and significantly correlated with industry tenure.

H4E: The OnFire Optimism scale will be positively and significantly correlated with industry tenure.

H4F: The OnFire Resilience scale will be positively and significantly correlated with industry tenure.

All of the above objectives were taken into account to determine the robustness of each of the OnFire scales and determine their psychometric validity.

Chapter Two - Method

Participants

The participants were drawn from three professional associations for individuals operating within the financial and insurance industries in New Zealand. These three associations were invited to participate in the research using three separate methods. The most effective method of data collection was the personalised email, which yielded a response rate of 28.35%. This was followed by the mass email which gained a response rate of 13.45%. The electronic newsletter was the least effective method of data collection with a response rate of 7.13%.

The final sample consisted of 202 participants, an overall response rate of 14.9%. Of the 1,356 individuals who potentially had access to the questionnaire, 217 participated in the research. Fifteen responses were removed due to incomplete data (>10% missing data). As advocated by Roth, Switzer and Switzer (1999), within-person mean substitution was adopted as a method to manage deletion of missing data. There were 68 cases of missing data, with no items having greater than 2% of missing data. The sample contained 44 females (22.11%) and 155 males (77.89%), with three respondents not indicating their gender. The ages of the participants ranged from 22 to 73 (M = 52.4, SD = 10.6). This gender and age distribution was considered typical of the industry, confirming that the sample was representative of the industry as a whole (Catalyst, 2012). In the sample, only 2% of participants had been in the industry for less than two years (n = 4), while 78.5% had been in the industry for ten or more years and 21% had been in the industry for 30 or more years (M = 18.9, SD = 11.6). In addition, 89.6% of participants indicated that they had been in their

current role for two or more years, 57.2% had been in their role for ten or more years and 10.9% for 30 or more years (M = 13.0, SD = 10.8).

Procedure

Consent to conduct the questionnaire on the professional associations was initially gained from the chair people of the associations after they were informed of the nature of the research (see Appendix A, p.98). Members of the associations were then invited to participate via email or by an electronic newsletter that linked them to the online questionnaire hosted by Qualtrics, an online survey tool (see Appendix B, p.99). The online questionnaire cover page informed participants of the purpose of the study and of its voluntary and anonymous nature (see Appendix C, p.101). Additionally, all participants were provided with a link to a video on YouTube that introduced the research. Furthermore, where possible, the emails were personalised with the respondent's name, the header of the related association, a picture of the researcher and an endorsement from the CEO of the association. These methods were incorporated as a strategy to increase the response rate (O'Rourke, 1999; Paxson, 1995). This research process was reviewed and approved by the School of Psychology Research and Ethics Committee of the University of Waikato.

Measures

The questionnaire contained 130 self-report items (see Appendix C, p.102). Apart from the OnFire items to be validated in the current study, all other utilised measures had been previously researched to determine their reliability and validity. Respondents were required to report how much they felt each item

described them. Participants were asked to "*answer in a way that describes how you really are and not how you would like to be*". Responses to all items were given on a 5-point scale with 1 = *strongly agree*, 2 = *slightly agree*, 3 = *neither agree nor disagree*, 4 = *slightly disagree* and 5 = *strongly disagree*.

The OnFire Questionnaire

The OnFire measure contains 57 self-report items that tap into six separate constructs: Drive, Extraversion, Influence, Norm Following, Optimism and Resilience (see appendix D, p.114). Each scale contained ten items, apart from 'Drive' which contained seven items. To reduce the influence of response biases, such as acquiescence, 17 of the items were negatively phrased. Drive purports to measure an individual's disposition to exert a high level of effort toward achieving goals, whereas Extraversion purports to measure an individual's tendency to rely on external sources for stimulation. Influence purports to measure an individual's predisposition to have the ability to persuade others and Norm Following purports to measure an individual's tendency towards rule following, conformity, impression management and collectivism. Finally, Optimism purports to measure an individual's belief or expectancy that the future holds more favourable outcomes and Resilience purports to measure an individual's ability to 'bounce back' from negative outcomes. Example items include "*I have an inner compulsion to work hard*" (Drive), "*I enjoy being the centre of attention*" (Extraversion), "*People say I help them reach difficult decisions*" (Influence), "*I follow instructions precisely*" (Norm Following), "*I look for the positive aspects of tough situations*" (Optimism) and "*I use a variety of*

strategies to get through difficult times" (Resilience). In addition to the OnFire scales, the following measures were also included within the questionnaire:

Industry Commitment

Industry Commitment was measured using Blau's (1989) seven-item Career Commitment scale. The scale examines an individual's commitment towards their vocation, profession or industry (Blau, 1989). As the scale was used for the purpose of measuring industry commitment rather than career commitment, the scale was therefore labelled throughout the research as 'Industry Commitment'. Various studies have examined the reliability of the scale, reporting the same alpha reliability level of .87 (Cohen, 1995, 1996, 1999). The scale contains seven items, three of which are reverse scored, with typical items including "*If I had all the money I needed without working, I would probably still continue to work in this profession*" and "*This is the ideal profession for a life's work*". The current study obtained a Cronbach's alpha value of .86.

Drive

The convergent measure adopted for the OnFire Drive scale was Goldberg et al.'s (2006) eight-item International Personality Item Pool (IPIP) Industry/Perseverance/Persistence scale (labelled throughout the research as IPIP Drive). The scale was developed based on the Industry/Perseverance/Persistence scale within Peterson and Seligman's (2004) Values in Action questionnaire. Goldberg et al. reported an alpha reliability of 0.81 for the scale. Three of the eight items were reverse scored. Sample items included "*I don't quit a task before*

it is finished" and "I *finish things despite obstacles in the way*". The Cronbach's alpha value obtained from the current study was .77.

Extraversion

The convergent measure adopted for the OnFire Extraversion scale was Goldberg et al.'s (2006) ten-item IPIP Extraversion scale. The IPIP Extraversion scale was developed based on the construct of Extraversion within Costa and McCrae's (1992) NEO Five-Factor Inventory. Goldberg et al. reported an alpha reliability of 0.86 for the ten item IPIP Extraversion scale. Five of the ten items within the extraversion scale were reverse scored. Typical items included "*I feel comfortable around people*" and "*I am skilled in handling social situations*". The current study obtained a Cronbach's alpha value of .82.

Influence

The convergent measure adopted for the OnFire Influence scale was Goldberg et al.'s (2006) ten-item IPIP Assertiveness scale (labelled throughout the research as IPIP Influence). The scale was developed based on the Assertiveness construct within Costa and McCrae's (1992) NEO Personality Inventory – Revised (NEO-PI-R). Goldberg et al. reported an alpha reliability of 0.84 for the ten-item scale. Sample items include "*I seek to influence others*" and "*I try to lead others*". The current study obtained a Cronbach's alpha value of .80.

Norm Following

The convergent measure adopted for the OnFire Norm Following scale was Goldberg et al.'s (2006) ten-item IPIP Conformity scale (labelled throughout

the research as IPIP Norm Following). The scale was derived from the construct of 'Cooperativeness' from within the Revised Jackson Personality Inventory (Goldberg et al., 2006). Goldberg et al. reported an alpha reliability of .71 for the ten-item scale. Sample items include "*I conform to others' opinions*" and "*I need the approval of others*". The scale contains ten items, half of which are reverse scored. The current study obtained a Cronbach's alpha value of .74.

Optimism

The convergent measure adopted for the OnFire Optimism scale was Goldberg et al.'s (2006) ten-item IPIP Optimism scale. The IPIP Optimism scale measures constructs similar to those contained within Scheier and Carver's (1985) Life Orientation Test (Goldberg et al., 2006). Goldberg et al. reported an alpha reliability of 0.86 for the ten-item scale. Six of the ten items were reverse scored to avoid response biases. Sample items include "*I look at the bright side of life*" and "*I feel comfortable with myself*". This study obtained a Cronbach's alpha value of .82.

Resilience

The convergent measure adopted for the OnFire Resilience scale was (2009a) 14-Item Resilience scale. The scale was retrieved from The Resilience Scale™ website with permission from the scale's author (Wagnild, 2009b). Wagnild (2009a) reported an alpha reliability coefficient of 0.93 for the 14-Item Resilience scale. Typical items include "*When I'm in a difficult situation, I can usually find my way out of it*" and "*I usually take things in my stride*". The current study obtained a Cronbach's alpha value of .79 for the scale.

Analysis

Exploratory principal axis factor analysis with oblique (Oblimin) rotation was used to determine the factor structure of the measures. The results can be viewed in Chapter Three (see p.43). All measures had a suitable ratio of cases to items with ratios that were greater than 20 to 1. Furthermore, the Kaiser-Meyer-Olkin measure of sampling adequacy (*KMO*) was greater than 0.70 for all variables in the study and the Bartlett's Test of Sphericity was also significant ($p<0.05$). This meant that conducting factor analysis was appropriate for all study variables. A factor-loading criterion of 0.32 was adopted following Tabachnick and Fidell's (2007) 'rule-of-thumb' recommendation. Following Costello and Osbourne's (2005) recommendation, low-loading or crossloading items were removed in order to achieve the cleanest factor structure.

As recommended by Kline (2011), transformations were not conducted on the variables to improve the normality of the distributions. Transformations were deemed unnecessary as the skew for all variables was less than 3.00 and the kurtosis was less than 8.00 (Kline, 2011). The reliability of the study variables was assessed using Cronbach's alpha.

All hypotheses were tested by examining the correlation coefficients. Correlations were calculated using the Pearson's statistic (one-tailed) as all variables were normally distributed. In order to ensure an adequate effect-size, a correlation criterion was incorporated throughout the study. To be considered as meaningful, correlations were required to be greater than or equal to .30 (Field, 2009). Correlations that did not meet this criterion were regarded as not supporting the hypothesis.

Chapter Three - Results

The results of the study are categorised by the six constructs and discussed in relation to the four objectives of the study: (a) factor analysis, (b) convergent validity, (c) nomological network integrity and (d) criterion-related validity. The first objective was to investigate the factor structure and reliability of each scale. The descriptive statistics of final factors derived from factor analysis can be viewed in Table 3.1 (see p.44). The factor loadings and scree plots can be viewed in Appendix E (see p.116). The second objective was to investigate the convergent validity of the OnFire scales by examining the correlations between the scales and previously established measures of a simular construct. Table 3.2 presents the correlation coefficients for all final factors (see p.46). The third objective was to assess the predicted intercorrelations between the OnFire scales as determined by the nomological network. The final objective was to assess the concurrent criterion-related validity against the OnFire measures and industry commitment and industry tenure.

Drive

Factor Analysis

Factor analysis (*KMO* = 0.75) of the OnFire Drive scale produced a two-factor solution (eigenvalues = 2.97 and 1.36), as confirmed by the scree plot, explaining 61.92% of the total variance. All items had factor loadings greater than 0.54 (see Appendix E for scree plot and factor loadings, p.116). Factor one appeared to relate to an individual's inner drive to work hard and was therefore termed the 'OnFire Inner Drive' factor ($\alpha = 0.82$). The factor two items appeared to relate to the workaholism aspect of drive and the factor was termed the 'OnFire

Table 3.1 – Descriptive Statistics

Description	Mean	Std. Deviation	Skewness	Kurtosis	Alpha
OnFire Inner Drive	3.84	0.70	-0.75	0.56	0.82
OnFire Workaholism	3.06	0.78	-0.26	-0.20	0.59
IPIP Drive	3.92	0.52	-0.25	0.24	0.77
OnFire Group Orientation	3.41	0.65	-0.47	0.55	0.66
OnFire Social Skills	3.87	0.46	-0.25	1.00	0.53
IPIP Social Confidence	3.38	0.68	-0.42	0.14	0.81
IPIP Social Skills	3.92	0.53	-0.66	1.33	0.75
OnFire Influence	3.91	0.41	-0.42	1.67	0.74
IPIP Leadership	3.80	0.50	-0.44	0.93	0.74
IPIP Assertiveness	3.43	0.65	-0.35	0.69	0.75
OnFire Process Following	3.26	0.64	-0.06	-0.25	0.66
OnFire Group Following	2.45	0.59	0.09	-0.05	0.51
IPIP Social Approval	3.15	0.65	-0.29	-0.36	0.71
IPIP Conformity	2.21	0.52	-0.11	-0.17	0.59
OnFire Optimism	4.12	0.45	-0.27	-0.04	0.73
IPIP Optimism (Attitude)	4.25	0.50	-0.55	0.19	0.73
IPIP Optimism (Mood)	4.02	0.55	-0.46	0.10	0.75
OnFire Resilience	3.82	0.47	-0.26	0.46	0.75
Wagnild (2009) Resilience	4.19	0.37	0.38	-0.62	0.79
Blau (1989) Industry Commitment	4.07	0.66	-0.80	0.57	0.86

Std. Error of Skewness = 0.17, Std. Error of Kurtosis = 0.34

5-Point scale - 1 = Strongly Disagree 5 = Strongly Agree

Workaholism' factor. The correlation between the two factors was significant at r =.31, p<0.01. The alpha reliability of 0.59 for the OnFire Workaholism factor was below Nunnally's (1994) recommended minimum level of internal consistency. Item analysis determined that deletion of items would not significantly improve the scale's Cronbach internal alpha reliability value, therefore the three-item scale was retained despite the low alpha reliability. The mean value for the OnFire Inner Drive factor was 3.84 (SD = 0.70) which was above the midpoint of 3.00 (see Table 3.1, p.44). The mean value for the OnFire Workaholism factor was 3.06 (SD = 0.78) which was the nearest to the midpoint of all variables included in the study.

Factor Structure of the IPIP Drive Scale

The previously validated convergent measure for the OnFire Drive scale was Goldberg's (2006) IPIP Drive scale. The scree plot confirmed a unidimensional factor structure (KMO = 0.84, eigenvalue = 3.18) for IPIP Drive scale with 39.77% of the total variance explained (α = 0.77, see Appendix E, p.117).

Convergent Validity of the Drive Scale

The correlations between all variables are displayed in Table 3.2 (see p.46). Hypothesis 1A proposed that the OnFire Drive scale would be positively and significantly correlated with IPIP Drive ($r \geq .30$). The correlation between the OnFire Inner Drive factor and the IPIP Drive scale was significant (r =.62, p<0.01), thereby supporting the prediction. The OnFire Workaholism factor did not support the proposed hypothesis as the correlation between the OnFire

Table 3.2 – Correlations For All Variables

			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	O	Inner Drive	*.82*																			
2	O	Workaholism	.31	*.59*																		
3	I	Drive	.62	.03	*.77*																	
4	O	Group Orientation	.12	.16	.12	*.66*																
5	O	Social Skills	.20	-.14	.28	.18	*.53*															
6	I	Social Confidence	-.08	.05	-.01	.71	.30	*.81*														
7	I	Social Skills	.17	-.10	.27	.40	.63	.48	*.75*													
8	O	Influence	.37	.06	.43	.30	.56	.31	.61	*.74*												
9	I	Leadership	.27	.12	.31	.48	.39	.39	.42	.57	*.74*											
10	I	Assertiveness	-.05	.08	.05	.65	.36	.82	.44	.37	.47	*.75*										
11	O	Process Following	.34	.06	.26	-.26	-.21	-.30	-.16	-.07	-.19	-.23	*.66*									
12	O	Group Following	-.08	.17	-.23	.00	-.38	-.15	-.14	-.35	-.27	-.22	.20	*.51*								
13	I	Social Approval	.16	.24	-.09	.27	-.21	.06	-.03	-.02	.05	.04	.25	.40	*.71*							
14	I	Conformity	-.09	.11	-.25	-.07	-.42	-.18	-.25	-.39	-.38	-.23	.15	.60	.35	*.59*						
15	O	Optimism	.47	-.01	.49	.27	.50	.23	.55	.58	.41	.20	.01	-.20	.04	-.26	*.73*					
16	I	Optimism (Attitude)	.38	-.13	.52	.15	.39	.17	.46	.52	.34	.18	.03	-.31	-.14	-.36	.62	*.73*				
17	I	Optimism (Mood)	.13	-.26	.31	.08	.30	.10	.32	.31	.22	.18	.06	-.21	-.13	-.17	.47	.57	*.75*			
18	O	Resilience	.25	-.23	.46	.06	.54	.16	.42	.47	.30	.21	-.05	-.42	-.28	-.40	.52	.67	.55	*.75*		
19	W	Resilience	.57	.05	.63	.24	.48	.18	.47	.62	.50	.22	.04	-.37	-.09	-.42	.69	.71	.37	.61	*.79*	
20	B	Industry Commitment	.44	-.08	.42	.16	.26	.08	.27	.37	.29	.15	.14	-.17	-.03	-.28	.48	.55	.38	.37	.48	*.86*
21	-	Industry Tenure	-.01	-.13	.04	-.02	.00	-.11	-.07	.07	.09	-.04	.11	-.10	.02	-.15	.02	-.02	.01	-.01	.06	.15

Correlations above .11 significant at $p<0.05$. Correlations above .17 significant at $p<0.01$.

O = OnFire, I = IPIP, W = Wagnild (2009), B = Blau (1989)

Alpha reliabilities shown diagonally in *italics*

Workaholism factor and the IPIP Drive scale did not meet the criterion correlation. Therefore, hypothesis 1A was partially supported.

Integrity of the Nomological Network

Hypothesis 2 predicted that the OnFire Drive scale would be positively and significantly correlated with the OnFire Extraversion scale and the OnFire Resilience scale. Factor analysis determined that the Extraversion scale consisted of two separate factors, Group Orientation and Social Skills (OnFire Extraversion Factor structure description on p.48). The correlations between the two OnFire Drive factors (Inner Drive and Workaholism) and the two Extraversion factors (Group Orientation and Social Skills) did not meet the correlation criterion ($r <$ .30, see Table 3.2). Hypothesis 2A was therefore not supported. The correlation between the OnFire Inner Drive factor and the OnFire Resilience scale also did not meet the correlation criterion. Furthermore, the OnFire Workaholism factor was negatively correlated with the OnFire Resilience scale (r =-.23, p<0.01). Hypothesis 2B was therefore not supported.

Criterion-Related Validity of the Drive Scale

Prior to testing the second hypothesis, the factor structure (KMO = 0.89) of the Industry Commitment scale was assessed. The scree plot confirmed a one-factor solution (eigenvalue = 3.88) that explained 55.44% of the total variance (see Appendix E, p.128). All factor loadings were greater than 0.58 (α = 0.86).

Hypothesis 3 predicted a positive and significant correlation between the OnFire Drive scale and industry commitment. OnFire Inner Drive was positively

and significantly correlated with Industry Commitment (r =.44, p<0.01) whereas the Workaholism factor was not. Hypothesis 3A was therefore partially supported.

Hypothesis 4 predicted a positive and significant correlation between the OnFire Drive scale and industry tenure. Hypothesis 4A was unsupported as neither the OnFire Inner Drive factor nor the OnFire Workaholism factor were significantly correlated with industry tenure.

Extraversion

Factor Analysis

Using the initial criterion of eigenvalues greater than 1.00, a three-factor solution emerged for the OnFire Extraversion scale. However, upon examination of the scree plot, it was concluded that a two-factor solution (*KMO* = 0.72, eigenvalues = 2.49, 1.51) was more appropriate, explaining 39.99% of the total variance (see Appendix E, p.118). Based on Tabachnick and Fidell's (2007) recommended factor loading criterion of 0.32, items 119 and 66 did not have significant factor loadings. When removed, the solution explained 47.18% of the total variance (*KMO* = 0.71, eigenvalues = 2.30, 1.47). Factor one appeared to tap into the construct of outgoingness and group orientation, whereas factor two appeared to tap into the construct of social skills (see Appendix E, p.118). Factor one was subsequently termed 'OnFire Group Orientation', while factor two was termed 'OnFire Social Skills'. The correlation between the two factors was r =.18, p<0.01. Both the OnFire Group Orientation (α = 0.66) and OnFire Social Skills (α = 0.53) factors produced alpha reliability values below Nunnally's (1994) recommended minimum, and could not be significantly improved by item deletion. Both the OnFire Group Orientation factor and the OnFire Workaholsim

scale had a mean value above the midpoint of 3.00 (*M* = 3.41, *SD* = 0.65 and *M* = 3.87, *SD* = 0.46, respectively).

Factor Structure of the IPIP Extraversion Scale

The convergent measure for the OnFire Extraversion scale was Goldberg's et al. (2006) IPIP Extraversion scale. Using the criterion of eigenvalues greater than 1.00, a two-factor solution (*KMO* = 0.84, eigenvalues = 3.66, 1.39) was obtained and confirmed by the scree plot, accounting for 50.44% of the total variance (see Appendix E, p.119). Based on Tabachnick and Fidell's (2007) factor loading criterion of 0.32, item 64 did not have a significant factor loading. Furthermore, item 64 *"Would describe my experiences as somewhat dull*" did not significantly correlate with any other item and lacked face validity as it was unrelated to interactions with other people, unlike all the other items. When item 64 was removed, the percentage of variance accounted for increased to 58.59% with all items having significant factor loadings (eigenvalues = 3.84, 1.44, see Appendix E, p.119). Factor one appeared to tap into the extraversion aspect of social confidence, whereas factor two tapped into the extraversion aspect of social skills. Factor one was subsequently termed 'IPIP Social Confidence' (α = 0.81) and factor two 'IPIP Social Skills' (α = 0.75). The two factors were significantly correlated at r =.48, p<0.01.

Convergent Validity of the Extraversion Scale

Hypothesis 1B predicted that the OnFire Extraversion scale would be positively and significantly correlated with the IPIP Extraversion scale ($r \geq .30$). As predicted, the OnFire Group Orientation factor had a positive and significant

correlation with the IPIP Social Confidence factor (r =.71, p<0.01) and the IPIP Social Skills factor (r =.40, p<0.01, see Table 3.2). The OnFire Social Skills factor also had a positive and significant correlation with the IPIP Social Confidence factor (r =.30, p<0.01) and the IPIP Social Skills factor (r =.63, p<0.01). As both factors of the OnFire Extraversion scale had a positive significant correlation ($r \geq .30$) with the two IPIP Extraversion factors, hypothesis 1B was supported.

Integrity of the Nomological Network

Hypothesis 2 predicted a positive and significant correlation between the OnFire Extraversion scale and the OnFire Drive scale, Influence scale and Optimism scale. The correlation between the OnFire Extraversion scale and the OnFire Drive scale did not meet the criterion. H2A was therefore not supported. Both of the OnFire Extraversion factors had significant correlations with the OnFire Influence scale (r =.30, p<0.01, r =.56, p<0.01), therefore supporting hypothesis 2C. Hypothesis 2D was partially supported as the correlation between the Social Skills factor with the OnFire Optimism scale met the correlation criterion (r =.50, p<0.01) whereas the correlation between the Group Orientation factor with Optimism did not (r =.27, p<0.01).

Criterion-Related Validity of the Extraversion Scale

Hypothesis 3B predicted a positive and significant correlation between the OnFire Extraversion scale and industry commitment. Hypothesis 3B was not supported as the correlation did not meet the correlation criterion ($r < .30$).

Hypothesis 4B predicted a positive and significant correlation between the OnFire Extraversion scale and industry tenure. Hypothesis 4B was also not supported as the correlation did not meet the correlation criterion ($r < .30$).

Influence

Factor Analysis

The OnFire Influence scale scree plot indicated that the initial conclusion of a three-factor solution was incorrect. Based on the scree plot a two-factor solution (*KMO* = 0.75, eigenvalues = 3.03, 1.31) was retained (44.34% of variance explained, see Appendix E, p.120). The solution required 25 iterations in order for the algorithm to estimate a factor solution, which raised doubts about the goodness-of-fit. Furthermore, a number of items had poor factor loadings and cross-loadings. Various factor solutions were attempted in order to find the 'cleanest' factor structure by deleting low loading and cross loading items. This resulted in the loss of five items without significantly improving the alpha reliability level of the scales (Costello & Osborne, 2005). Item 107 *"People ask me to explain things, when I think I've already made it clear"* was not significantly correlated with any other items within the scale. Field (2009) recommended eliminating items that do not significantly correlate with any other variables, hence item 107 was removed from subsequent analysis. When this item was removed, a one-factor solution (eigenvalue = 2.96) emerged which explained 32.84% of the total variance. The OnFire Influence scale had a mean value of 3.91 with a standard deviation of 0.41 ($\alpha = 0.74$).

Factor Structure of the IPIP Influence Scale

The scree plot confirmed a two-factor solution (*KMO* = 0.82, eigenvalues = 3.66, 1.39) for the IPIP Influence scale which explained 50.44% of the total variance (see Appendix E, p.121). Factor one had a focus on an individuals' willingness to lead others. Alternatively, factor two had a focus on an individuals' confidence or assertiveness when interacting with others. For subsequent analysis, factor one was termed the 'IPIP Leadership' factor ($\alpha = 0.74$) and factor two the 'IPIP Assertiveness' factor ($\alpha = 0.75$). The two factors were significantly correlated ($r = .47$, $p < 0.01$).

Convergent Validity of the Influence Scale

Hypothesis 1C proposed that the OnFire Influence scale would be positively and significantly correlated with the IPIP Influence scale. As predicted, a positive and significant correlation was obtained between the OnFire Influence scale and the IPIP Leadership factor ($r = .57$, $p < 0.01$) and the OnFire Influence scale and the IPIP Assertiveness factor ($r = .37$, $p < 0.01$). This provided support for hypothesis 1C.

Integrity of the Nomological Network

Hypothesis 2 predicted that the OnFire Influence scale would be positively and significantly correlated with the OnFire Extraversion scale. The correlation between the OnFire Influence scale and both factors of the OnFire Extraversion scale met the correlation criterion ($r = .30$, $p < 0.01$, $r = .56$, $p < 0.01$). This therefore supported hypothesis 2C.

Criterion-Related Validity of the Influence Scale

Hypothesis 3C predicted that the OnFire Influence scale would be positively and significantly correlated with industry commitment. The OnFire Influence scale had a positive and significant relationship with industry commitment (r =.37, p<0.01) thus supporting hypothesis 3C.

Hypothesis 4C predicted a positive and significant correlation between the OnFire Influence scale and industry tenure, but was unsupported (r < .30).

Norm Following

Factor Analysis

The scree plot confirmed a two-factor solution (*KMO* = 0.72, eigenvalues = 2.65, 1.47) for the OnFire Norm Following scale which explained 41.25% of the total variance (see Appendix E, p.122). Item 80 *"When I'm in a crowd of people, I prefer to blend in"* had a non-significant factor loading of 0.30 and was removed from subsequent analysis. The final rotated solution yielded two factors (*KMO* = 0.71, eigenvalues = 2.49, 1.46) that explained 43.89% of the total variance. Factor one tapped into an individual adhering to policies and processes, and was therefore labelled 'OnFire Process Following' (α = 0.66). Factor two tapped into an individual adapting to fit in with the group and was labelled 'OnFire Group Following' (α = 0.51). The correlation between the two factors was r =.20, p<0.01. Item analysis determined that the deletion of items would not significantly improve the alpha reliability and the scales were retained as is. The OnFire Process Following factor had a mean value of 3.26 with a standard deviation of 0.64. The OnFire Group Following factor was the only OnFire scale to have a mean value below the midpoint of 3.00 (M = 2.45, SD = 0.59).

Factor Structure of the IPIP Norm Following Scale

The scree plot confirmed a two-factor solution (*KMO* = 0.73, eigenvalues = 3.11, 1.42) for the IPIP Norm Following scale which explained 45.25% of the total variance (see Appendix E, p.123). Item 48 *"I feel it's OK that some people don't like me"* did not have a significant factor loading. When removed, the two-factor solution (eigenvalues = 2.93, 1.42) explained 48.22% of the total variance. Factor one appeared to tap into the individual's need for social approval and was henceforth termed 'IPIP Social Approval' ($\alpha = 0.71$). Factor two appeared to be tapping into the norm following construct of social conformity and was termed 'IPIP Conformity' ($\alpha = 0.59$). The two factors were significantly correlated ($r = .35$, $p < 0.01$).

Convergent Validity of the Norm Following Scale

Hypothesis 1 predicted that the OnFire Norm Following scale would have a positive and significant correlation with IPIP Norm Following scale. The OnFire Group Following factor had a significant positive correlation with both the IPIP Social Approval factor ($r = .40$, $p < 0.01$) and the IPIP Conformity factor ($r = .60$, $p < 0.01$). However, the OnFire Process Following factor's correlation with the IPIP Social Approval factor ($r = .25$, $p < 0.01$) and the IPIP Conformity factor ($r = .15$, $p < 0.05$) did not meet the correlation criterion ($r < .30$). Therefore, hypothesis 1D was partially supported.

Criterion-Related Validity of the Norm Following Scale

Hypothesis 3 predicted that the OnFire Norm Following scale would be positively and significantly correlated with industry commitment ($r \geq .30$). The

OnFire Process Following factor did not meet the hypothesised prediction, as it was not significantly correlated with industry commitment ($r < .30$). The OnFire Group Following factor had a negative correlation with industry commitment ($r = -.17$, $p < 0.01$) and therefore did not meet the hypothesised prediction.

Hypothesis 4 predicted a positive and significant correlation between the OnFire Norm Following scale and industry tenure ($r \geq .30$). Neither factors of the OnFire Norm Following scale had a correlation with industry tenure that meet the correlation criterion ($r < .30$). Hypothesis 4D was therefore not supported.

Optimism

Factor Analysis

Using the initial criterion of eigenvalues greater than 1.00, a three-factor solution emerged for the OnFire Optimism scale. However, the scree plot determined that a one-factor solution (*KMO* = 0.77, eigenvalue = 3.03) was more appropriate, explaining 30.28% of the variance (see Appendix E, p.124). Based on Tabachnick and Fidell's (2007) factor loading criterion of 0.32, item 5 *"When trouble strikes, it is best to focus on the problem rather than the solution"* and item 12 *"People let you down"* did not have significant factor loadings or correlate significantly with any other items. Furthermore, these items lacked face-validity as item 5 was indirect, making it obtuse, and item 12 related to relationships with other people rather than the advisor's outlook on life. Subsequent analysis was conducted with these two items removed. The eight-item measure resulted in a one-factor solution (KMO = 0.80, eigenvalue = 3.00) that explained 37.46% of the total variance ($\alpha = 0.73$). The OnFire Optimism scale had the highest mean of all OnFire variables with mean of 4.12 (*SD* = 0.45).

Factor Structure of the IPIP Optimism Scale

A two-factor solution (*KMO* = 0.87, eigenvalues = 3.94, 1.19) emerged for the IPIP Optimism scale that explained 51.28% of the total variance (see Appendix E, p.125). Factor one appeared to tap into an individual's general attitude towards life and was therefore termed 'IPIP Optimism (Attitude)' (α = 0.73). Factor two tapped into an individual's current mood towards life and was termed 'IPIP Optimism (Mood)' (α = 0.75). The two factors were significantly correlated (r =.57, p<0.01).

Convergent Validity of the Optimism Scale

Hypothesis 1E predicted that the OnFire Optimism scale would be positively and significantly correlated with the IPIP Optimism scale. Hypothesis 1E was confirmed as the OnFire Optimism scale had a positive and significant correlation with both the IPIP Optimism (Attitude) factor (r =.62, p<0.01) and the IPIP Optimism (Mood) factor (r =.47, p<0.01).

Integrity of the Nomological Network

Hypothesis 2 predicted that the OnFire Optimism scale would be positively and significantly correlated with the OnFire Extraversion scale and Resilience scale. Hypothesis 2D was partially supported as the correlation between the OnFire Optimism scale and the OnFire Social Skills factor met the correlation criterion (r =.50, p<0.01), whereas the correlation with the OnFire Group Orientation factor did not (r =.27, p<0.01). Finally, the OnFire Optimism scale was positively and significantly correlated with the OnFire Resilience scale (r =.52, p<0.01), therefore supporting hypothesis 2E.

Criterion-Related Validity of the Optimism Scale

Hypothesis 3E predicted a positive and significant correlation between the OnFire Optimism scale and industry commitment ($r \geq .30$). As hypothesised, the OnFire Optimism scale had a positive significant relationship with industry commitment that met the correlation criterion ($r = .48$, $p < 0.01$).

Hypothesis 4E predicted a positive and significant correlation between the OnFire Optimism scale and industry tenure ($r \geq .30$). Hypothesis 4E was not supported as the OnFire Optimism scale was not significantly correlated with industry tenure ($r < .30$).

Resilience

Factor Analysis

The scree plot for the OnFire Resilience scale confirmed a two-factor solution (*KMO* = 0.77, eigenvalues = 3.10, 1.36) that explained 49.48% of the total variance (see Appendix E, p.126). Extraction was terminated when the solution required more than 25 iterations, as the number of steps required to estimate the solution exceeded the recommended maximum (Field, 2009). Item 43 *"I have a variety of people who support me when things are tough"* did not correlate with any other items. The item also lacked face validity as it related to reliance on others in order to be resilient rather than it being an inner strength. When removed, a one-factor solution (eigenvalue = 3.06) emerged that explained 38.27% of the total variance ($\alpha = 0.75$). The OnFire Resilience scale had a mean of 3.82 (*SD* = 0.47).

Factor Structure of Wagnild's (2009) Resilience Scale

The scree plot for Wagnild's (2009) Resilience scale confirmed a one-factor solution (*KMO* = 0.79, eigenvalue = 4.06) that explained 28.97% of the total variance (see Appendix E, p.127). Items 3 *"I usually take things in my stride"* and 109 *"I can usually find something to laugh about"* had insignificant factor loadings of 0.28 and 0.25 respectively, and were removed from subsequent analysis. Removal of these two items increased the percentage of variance that was accounted for to 32.60% (*KMO* = 0.82, eigenvalue = 3.91, $\alpha = 0.79$).

Convergent Validity of the Resilience Scale

Hypothesis 1F proposed that the OnFire Resilience scale would be positively and significantly correlated with Wagnild's (2009) Resilience scale. Hypothesis 1F was confirmed as the OnFire Resilience scale had a significant positive correlation with Wagnild's Resilience scale ($r = .61$, $p < 0.01$).

Integrity of the Nomological Network

The OnFire Resilience scale was positively and significantly correlated with the OnFire Optimism scale ($r = .52$, $p < 0.01$), therefore supporting hypothesis 2E.

Criterion-Related Validity of the Resilience Scale

Hypothesis 3F predicted a positive and significant correlation between the OnFire Resilience scale and industry commitment. Hypothesis 3F was supported as the correlation between the OnFire Resilience scale and the industry commitment scale ($r = .37$, $p < 0.01$) met the correlation criterion.

Hypothesis 4 predicted a positive and significant correlation between the OnFire Resilience scale and industry tenure. Hypothesis 4F was not supported, as the OnFire Resilience scale was not significantly correlated with industry tenure ($r < .30$).

Summary of Findings

The first step of psychometric validation involved determining the factor structure of the OnFire scales. Factor analysis resulted in the removal of seven out of the 57 items from the OnFire questionnaire due to factor loadings that did not meet the criterion. Factor analysis also determined that the OnFire Drive scale, OnFire Extraversion scale and the OnFire Norm Following scale each consisted of two separate factors. Once the cleanest factor structure was achieved, the OnFire Influence, OnFire Optimism, OnFire Resilience scales and the OnFire Inner drive factor produced acceptable alpha reliabilities (see Table 3.3). However, the OnFire Workaholism, OnFire Group Orientation, OnFire Social Skills, OnFire

Table 3.3 - Hypotheses Summary for OnFire Variables

Factor	α	Hypothesis 1	Hypothesis 3
Inner Drive	**.82**	**.62**	**.44**
Workaholism	.59	.03	-.08
Group Orientation	.66	**.71 / .40**	.16
Social Skills	.53	**.30 / .63**	.26
Influence	**.74**	**.57 / .37**	**.37**
Process Following	.66	.25 / .15	.14
Group Following	.51	**.40 / .60**	-.17
Optimism	**.73**	**.62 / .47**	**.48**
Resilience	**.75**	**.61**	**.37**

Notes: **Bold Type** = Correlation Criterion met
α = Cronbach's Alpha >.70
Hypothesis 1 = $r > .30$ for Convergent Measure
Hypothesis 3 = $r > .30$ for Industry Commitment
Hypothesis 2 presented in Table 3.4

Process Following and the OnFire Group Following factors all produced alpha reliability values below the recommended level (Nunnally, 1994).

Hypothesis 1 was supported for the OnFire Extraversion scale, OnFire Influence scale, OnFire Optimism scale and the OnFire Resilience scale. The hypothesis was partially supported for the OnFire Drive scale and the OnFire Norm Following scale. This was due to the correlation criterion with the convergent measure being supported for the OnFire Inner Drive factor and the OnFire Group Following, but not being supported for the OnFire Workaholism factor and the OnFire Process Following factor.

Hypothesis 2 was supported for Extraversion with Influence (H2C) and Optimism with Resilience (H2E, see Table 3.4). The hypothesis was partially supported for Extraversion and Optimism (H2D). This was due to the Social Skills factor of the Extraversion scale meeting the correlation criterion, whereas the Group Orientation factor did not. Finally, the hypothesis was not supported between Drive with Extraversion (H2A) and Drive with Resilience (H2B).

3.4 Nomological Network: Relationships Between OnFire Variables

		1	2	3	4	5	6	7	8
1	Inner Drive								
2	Workaholism	+							
3	Group Orientation	.	.						
4	Social Skills	.	.	.					
5	Influence	+	.	+	+				
6	Process Following	+	.	.	.	.			
7	Group Following	.	.	.	−	−	.		
8	Optimism	+	.	.	+	+	.	.	
9	Resilience	.	.	.	+	+	.	−	+

Notes: + = Positive Correlation (>.30)
− = Negative Correlation (< -.30)
. = Correlation Criterion Not Met (-.30 < *r* < .30)
= Positive Correlation Predicted by Nomological Network

Hypothesis 3 was supported for the OnFire Influence scale, the OnFire Optimism scale and the OnFire Resilience scale. The hypothesis was partially supported for the OnFire Drive scale as the OnFire Inner Drive factor met the correlation criterion with industry commitment whereas the OnFire Workaholism factor did not. The hypothesis was not supported for any of the factors within the OnFire Extraversion scale and the OnFire Norm Following scale. In relation to industry tenure, as none of the correlations between the OnFire scales and industry tenure met the criterion, no support was found for hypothesis 4.

In summary, the scales to achieve psychometric validation were the Inner Drive factor, Influence scale, Optimism scale and the Resilience scale (see Table 3.4).

Chapter Four - Discussion

The primary objective of this study was to assess the psychometric validity of the OnFire measure that was developed to predict the industry commitment and tenure of advisors within financial services. This involved assessing the construct validity, convergent validity, nomological network integrity and criterion validity of the six scales within the OnFire measure. Assessing the psychometric validity of a new scale is important as it provides evidence about whether or not the scale accurately measures the phenomena that it purports to measure (Cohen & Swerdlik, 2010). It also determines the measure's suitability for application within the field (Cohen & Swerdlik, 2010).

Personality tests are widely used by employers when making employment decisions such as employee selection, staff development and predicting productivity or job performance (Erez & Judge, 2007; Nyhus & Pons, 2005). Research examining the relationship between personality testing and job performance has identified a significant and meaningful relationship (r =.24 to .46, Barrick & Mount, 1991). However, in order to be useful for making employment decisions, the measures validity and reliability must first be determined through psychometric validation.

The OnFire measure was developed in order to address the high level of staff turnover within financial services, by helping to predict an individual's predisposition towards industry commitment. The six scales within the OnFire measure were developed deductively from theoretical constructs and anecdotal data from within the field. The six scales were included within the OnFire measure due to their relevance to the industry tenure and commitment of advisors within financial services. Psychometrically validating the OnFire measure is an

important step as it assesses the validity and reliability of the measure and determines its suitability for use within financial services.

The findings from the current study provide partial support for the psychometric validity of the OnFire measure. In particular, the Inner Drive factor, Influence scale, Optimism scale and Resilience scale all demonstrated their psychometric utility through their factor structure, achievement of convergent validity and criterion-related validity. However, the Workaholism factor, Extraversion scale and Norm Following scale may require further research and development in order to achieve psychometric validation.

The current chapter discusses each of the OnFire scales and interprets the data in relation to their achievement of the four research objectives: (a) factor analysis, (b) convergent validity, (c) nomological network integrity and (d) criterion-related validity. This will be followed by an assessment of the limitations of the study and suggestions for future research directions.

Drive

Drive is defined as an individual's disposition to engage in goal-directed behaviour requiring them to exert a high level of effort to achieve success (Kirkpatrick & Locke, 1991; Lounsbury et al., 2004a; Peterson & Seligman, 2004; Ridgell & Lounsbury, 2004). The factor structure of the OnFire Drive scale was explored and the scale was found to comprise two factors: Inner Drive and Workaholism. The Inner Drive factor produced a significant alpha reliability. However, the OnFire Workaholism factor had a low alpha reliability value, thereby raising questions about its internal consistency. The Workaholism factor also obtained the highest standard deviation of all variables included in the study.

This indicates a high dispersion on the agreement or disagreement within the sample on items relating to workaholism.

The first hypothesis involved testing the convergent validity of the OnFire scales. It was predicted that the OnFire Drive scale would be significantly correlated with the previously established IPIP Drive scale. The results showed that the correlation between the OnFire Inner Drive factor and the IPIP Drive scale met the criterion. This provided evidence of convergent agreement between the theoretically related OnFire Inner Drive factor and IPIP Drive scale. However, the correlation criterion was not met for the OnFire Workaholism factor. As the correlation between the OnFire Workaholism factor and the IPIP Drive scale did not meet the correlation criterion, this suggested that the OnFire Workaholism factor was not measuring the intended construct. This finding may be the result of the Workaholism items tapping into the construct of 'addiction to work' rather than 'a drive to work'. For example, Workaholism items include "*I find myself thinking about work, even when I want to get away*" and "*I feel guilty when I take time off work*". On the other hand, IPIP Drive items include "*I don't quit a task before it is finished*" and "*I am a goal-oriented person*". The scales' items contrast in their emphasis on an obsession with work verses a desire to work. This highlights the need for further evaluation of the Workaholism factor in order to clarify what the scale is measuring and to achieve convergent validity.

The second hypothesis determined the integrity of the nomological network by examining the predicted intercorrelations between the OnFire scales. The OnFire Drive scale was hypothesised to have a significant correlation with the OnFire Extraversion scale based on previous findings by Lounsbury et al. (2004a). The hypothesis was not supported as the correlation did not meet the

criterion. The inability to find a significant correlation between drive and extraversion could be attributed to various factors. Firstly, although Lounsbury et al. (2004a) found a significant correlation between Drive and Extraversion using multiple measures, other authors have been unable to find a significant correlation (Aziz & Tronzo, 2011; Hogan & Holland, 2003). Aziz and Tronzo (2011) argued a significant relationship might not be found between drive and extraversion as extraverts can have the tendency to prioritise social aspects, such as socialising with co-workers, over being driven to complete their work. This may have contributed to the hypothesis not being supported between the OnFire Drive scale and the OnFire Extraversion scale.

The OnFire Drive scale was also hypothesised to have a significant correlation with the OnFire Resilience Scale. This was predicted due to a correlation being found between drive and resilience by Lounsbury et al. (2004a). However, neither of the OnFire Drive factors met the correlation criterion, with the Workaholism factor having a negative correlation with Resilience. This finding was somewhat surprising due to the shared emphasis that Drive and Resilience have on persistence even in the face of obstacles (Bernard et al., 2008; Byers et al., 2006; Lounsbury et al., 2004a, 2004c; Peterson & Seligman, 2004). This failed relationship may be attributed to the Resilience items' emphasis on the management of stress, such as "*I use a variety of skills to manage stress*" and "*I take time out to care for myself*". On the other hand, the Drive items appear to emphasise the individual being under stress, such as "*I feel obliged to put in my maximum effort, even when it's not enjoyable*" (Inner Drive) and "*I find myself thinking about work, even when I want to get away*" (Workaholism). These contrasting emphases on the management versus the manifestation of stress may

have influenced the predicted relationship not occurring between the OnFire Drive scale and the OnFire Resilience scale.

The Workaholism factor not meeting any of the hypothesised relationships with the other OnFire variables may be attributed to the nomological network examining Drive, rather than Workaholism. Although the constructs of Drive and Workaholism are significantly correlated (r =.55, p<0.01), they are empirically distinct (Lounsbury et al., 2004a). This means that the predictions were based on research examining Drive, not Workaholism. Workaholism, as a construct, therefore needs to be embedded in the nomological network to fully understand its relationship with the OnFire variables and assess its construct validity.

The third and fourth hypotheses of the study explored the criterion-related validity of the OnFire scales. The OnFire Drive scale was hypothesised to have a positive and significant correlation with industry commitment and industry tenure. The rationale for this hypothesis was based on previous research establishing a link between drive and other factors that have been found to be significantly correlated with industry commitment and tenure (Blau, 2007, 2009; Duffy et al., 2011; Lounsbury et al., 2004a, 2007b). The results showed that the Inner Drive factor of the OnFire Drive scale was significantly and positively correlated with industry commitment, whereas the Workaholism factor was not. This suggests that individuals high in inner drive are likely to be more committed to the industry than individuals who are not high in inner drive. The unsupported hypothesis between Workaholism and industry commitment may be attributed to Workaholism being more commonly associated with an addiction to the act of working, rather than commitment to the industry (Aziz & Tronzo, 2011;

Lounsbury et al., 2004a). As previously discussed, the Workaholism items appear to have negative connotations, where individuals have a high drive to work, but a low enjoyment of work. Workaholism items include "*I find myself thinking about work, even when I want to get away*" and "*I feel guilty when I take time off work*". These negative connotations may be counter-intuitive to the positive outcome of career commitment, thereby helping to explain the hypothesis not being supported. Finally, the low correlation between Workaholism and Career Commitment also could be attributed to the poor internal consistency and validity of the Workaholism factor.

Hypothesis four predicted that Drive, and all other OnFire scales, would be positively and significantly correlated with industry tenure. This relationship was predicted due to the strong emphasis within the literature on the high level of turnover of financial advisors, the relationship between the OnFire variables and factors related to staff turnover and previous research asserting that variables such as optimism could predict reductions in staff turnover (Mc Manus & Kelly, 1999; Mellor, 2012; Seligman, 1998). However, the current study failed to find a significant relationship between industry tenure and any of the OnFire scales. This may be attributed to the high level of range restriction within the study as only four participants (2%) had been in the industry for less than two years. This meant that comparisons could not be conducted between newcomers and individuals with long industry tenure. Such comparisons would have assisted in furthering the understanding of the relationship between the OnFire variables and industry tenure. In addition, the insignificant relationship between the OnFire scales and industry tenure could be related to other variables influencing the relationship with industry tenure. For example, personality dispositions alone may not be able

to predict industry tenure. As a result of the insignificant relationship between industry tenure and all variables included in the study, industry tenure was removed as a criterion variable for psychometric validation.

In summary, the current study psychometrically validated the Inner Drive factor but failed to validate the Workaholism factor of the OnFire Drive scale. The Inner Drive factor was therefore deemed as suitable for predicting the industry commitment of financial advisors. However, the OnFire Workaholism factor requires further research and development in order to achieve psychometric validation and to be used with confidence within the OnFire measure.

Extraversion

Extraversion is defined in terms of traits such as gregariousness, high energy, sociability, assertiveness, outgoingness, strong social skills and a preference for human contact (Barrick & Mount, 1991; Burke et al., 2006; Caruso & Gottlieb, 2004; Judge et al., 1999; Nyhus & Pons, 2005; Witt, 2002). The factor structure of the OnFire Extraversion scale was examined and it was determined that the Extraversion scale consisted of two factors: Group Orientation and Social Skills. The two Extraversion factors had an intercorrelation that was below the correlation criterion. This indicated that the Extraversion factors are measuring distinct constructs, as opposed to a unified construct of Extraversion. Both factors of the OnFire Extraversion scale also produced alpha reliabilities below Nunnally's (1994) recommended minimum level, thereby raising questions about the internal consistency.

In order to assess convergent validity, the OnFire Extraversion scale was predicted to have a significant correlation with the previously established IPIP

Extraversion scale. The results showed that both factors of the OnFire Extraversion scale had a positive and significant correlation with both factors of the IPIP Extraversion scale that met the correlation criterion. This result suggests an agreement between the OnFire Extraversion scale and the IPIP Extraversion scale on the construct of extraversion.

Intercorrelations between the OnFire variables as determined by the nomological network were examined to further assess the construct validity of the OnFire Extraversion scale. The OnFire Extraversion scale was predicted to have a significant relationship with the OnFire Drive scale, OnFire Influence scale and the OnFire Optimism scale. As previously discussed (see pp.64-65), the correlations between OnFire Drive and OnFire Extraversion did not meet the correlation criterion. However, the hypothesis between the OnFire Extraversion scale and the OnFire Influence scale was supported. This result was consistent with the findings of Ames et al. (2012), Mueller-Hanson et al. (2007) and Slowikowski (2003) who proposed that extraversion and influence overlap due to their shared emphasis on the importance of social skills.

The OnFire Extraversion scale was also predicted to have a significant correlation with the OnFire Optimism scale. This was predicted due to research by William (1992), Lounsbury et al. (2004c) and Sharpe et al. (2011) asserting a relationship between Extraversion and Optimism. It was found that the Social Skills factor supported the prediction, whereas the Group Orientation factor did not. Sharpe et al. attributed the relationship between Extraversion and Optimism to the tendency of optimists to be more socially adept than non-optimists. This suggests that a relationship exists between Extraversion and Optimism due to the shared emphasis on social factors, hence the relationship between the Social Skills

factor and Optimism. However, Sharpe et al.'s explanation for the relationship between Extraversion and Optimism was not related to group affiliation, which may explain the lack of a meaningful relationship in the study between the Group Orientation factor and Optimism. Furthermore, the poor internal consistency of the Group Orientation factor may have also contributed to the unsupported hypothesis.

Hypothesis three examined the OnFire Extraversion scale's relationship with industry commitment. A positive and significant correlation was predicted between OnFire Extraversion and Industry Commitment based on previous research establishing a relationship between extraversion and various factors that are linked to industry commitment (Aryee & Tan, 1992; Avey et al., 2009; Blau, 1989, 2007, 2009; Burke et al., 2006; Chang, 1999; Duffy et al., 2011; Eswaran et al., 2011; Lounsbury et al., 2007b; Miller et al., 2009). The results did not support this prediction, as the correlation between Extraversion and Industry Commitment did not meet the correlation criterion. There are a number of possible explanations for the prediction being unsupported. Firstly, although some authors have established a link between extraversion and factors related to commitment, other authors have been unable to identify a significant relationship (Furnham et al., 2009; Judge et al., 1999; Thomas et al., 2004). This suggests that another variable may be influencing the relationship between extraversion and commitment that was not assessed in the present study. Secondly, Fudge and Furnham (2008) argued that extraversion has a curvilinear relationship with job performance where too much extraversion can actually be detrimental, as individuals primarily focus on the social aspect of the job. As the nomological network identified that financial advisors ideally should be high in extraversion, this may mean that

advisors could potentially be more committed to social connections they have built within the industry, rather than being committed to the industry itself. Lastly, the poor internal consistency of the two factors within the Extraversion scale may have contributed to the hypothesis not being supported. These three explanations may all contribute to the prediction between extraversion and industry commitment not being supported and emphasises the need for further evaluation of the OnFire Extraversion scale to determine its relevance to financial advisors and justify its use within the OnFire measure.

In summary, the results of this study failed to establish the psychometric validity of the OnFire Extraversion scale. The OnFire Extraversion scale in its present form was therefore determined as unsuitable for predicting the industry commitment of financial advisors.

Influence

Influence is defined as the process of impacting individuals' thoughts and actions, such as actively leading an individual to a decision though persuasion (Durán, 2011; Inderst, 2011; Wheeler, 1970). The acceptable alpha reliability of the one-factor scale provided evidence of the OnFire Influence scale's internal consistency. The mean of the OnFire Influence scale was above the mid-point, with the smallest standard deviation of all OnFire variables. This indicates that participants in the sample were more likely to agree with influence items, with less variation in responses than other variables in the study.

In order to assess convergent validity, hypothesis one predicted that the OnFire Influence scale would be positively and significantly correlated with the previously established IPIP Influence scale. The hypothesis was supported as the

correlation met the correlation criterion. This finding indicates overlap between the theoretically related measures of influence.

Intercorrelations between the OnFire variables, as determined by the nomological network, were used to further assess the construct validity of the OnFire Influence scale. The OnFire Influence scale was predicted to have a positive and significant relationship with the OnFire Extraversion scale. As discussed previously (see p.69), the results supported this hypothesis.

Hypothesis three predicted a relationship between the OnFire Influence scale and industry commitment. The rationale for this hypothesis was based on previous research establishing a link between assertiveness, a construct that conceptually overlaps with influence, and factors that are significantly related to industry commitment (Blau, 2007, 2009; Duffy et al., 2011; Lounsbury et al., 2007b). The hypothesis between the OnFire Influence scale and industry commitment was supported, indicating that individuals high in influence are more likely to be committed to the industry. This indicates that the OnFire Influence scale is suitable for predicting financial advisors' predisposition towards industry commitment.

In summary, the results of this study provide evidence of the psychometric validity of the OnFire Influence scale due to its internal consistency, convergent validity, nomological network integrity and criterion-related validity.

Norm Following

Norm Following is defined as an individual actively adapting their behaviour to match the behaviour of others and consists of an amalgamation of rule following, conformity, impression management and collectivism (Cialdini &

Goldstein, 2004; Hewlin, 2009; Jackson et al., 2006; Wheeler, 1970). It was found that the Norm Following scale comprised two factors: Process Following and Group Following. The Process Following factor was related to individuals adhering to policies and processes, whereas the Group following factor tapped into conforming to group behaviour. The two factors had an intercorrelation that was below the correlation criterion. This indicated that the two factors are tapping into distinct constructs, as opposed to a unified construct of Norm Following.

Both factors of the Norm Following scale obtained alpha reliabilities below Nunnally's (1994) recommended level. This raised questions about the internal consistency of the Norm Following scale. The Group Orientation factor obtained the lowest mean of all OnFire variables included in the study. As the mean was below the mid-point of the scale, this indicated that the sample participants were more likely to disagree with Group Orientation items. In addition, both factors of the Norm Following scale were negatively correlated with the majority of the other factors in the study. The Group Orientation factor showed a significant negative correlation with the OnFire Social skills factor, the OnFire Influence scale, the OnFire Optimism scale and the OnFire Resilience scale. All other OnFire variables, excluding Workaholism, generally had moderate correlations with each other and response means that sit above the midpoint. This suggested that the OnFire Inner Drive factor, the Influence scale, the Optimism scale and the Resilience scale were compatible with each other and could be used in conjunction to describe the typical personality disposition of financial advisors. On the other hand, the low means of the Norm Following factors and their lack of congruence with the other OnFire variables may indicate that the Norm Following scale in its present form may be incompatible with the other OnFire variables.

Interestingly, the IPIP Norm Following scale also comprised two factors, with one factor producing a suitable alpha reliability, and the other factor producing an alpha below Nunnally's (1994) recommended minimum level. This poor internal consistency was problematic as the scale was adopted due to prior research determining its validity and reliability (Goldberg et al., 2006).

In order to assess convergent validity and test hypothesis one, the OnFire Norm Following scale was predicted to have a significant positive correlation with the IPIP Norm Following scale. The OnFire Group Following factor had a significant correlation that met the correlation criterion with both factors of the IPIP Norm Following scale, indicating an overlap between the theoretically related constructs. On the other hand, the correlation between the OnFire Process Following factor and both factors of the IPIP Norm Following scale did not meet the correlation criterion. This result suggests that the OnFire Process Following factor was measuring a separate construct as it was not significantly related to the theorotically related measure of Norm Following. This may be attributed to the definition of Norm Following being made up of a range of factors and emphasises the need for further research on the convergent validity of the Norm Following scale.

The nomological network predicted intercorrelations between the OnFire variables. These intercorrelations provide further evidence of construct validity of the OnFire scales. However, no significant correlations were identified between norm following and the other OnFire variables. This was likely to reflect norm following not being defined sufficently as it is made up of an amagimation of variables. As a result, norm following was not present within the current literature. This emphasises the need for further research to define and validate the

Norm Following scale in order to explore its relationship with other established constructs and determine its utility within the OnFire measure.

Hypothesis three examined the relationship between the OnFire Norm Following scale and industry commitment. A positive correlation was predicted based on previous research that established a link between norm following and various factors that have been found to be related to industry commitment (Aryee & Tan, 1992; Blau, 1989, 2007, 2009; Burks & Krupka, 2012; Chang, 1999; Duffy et al., 2011; Jaramillo et al., 2006). The study found that neither of the Norm Following factors had a correlation with industry commitment that met the criterion. In fact, the OnFire Group Orientation factor had a negative correlation with industry commitment. This negative relationship with industry commitment may indicate that individuals high in group orientation may be less committed to the industry. This relationship may be attributed to the competitive nature of the industry, which may create cognitive dissonance for individuals high in group orientation (Eswaran et al., 2011; Reid et al., 2002). Furthermore, the poor internal consistency of the Norm Following factors may have contributed to the insignificant relationship. This further emphasised the need for additional research on the Norm Following scale to determine its relevance to financial advisors and justify its inclusion within the OnFire measure.

In this study, the OnFire Norm Following scale in its present form failed to meet acceptable psychometric validity. This was attributed to the poor internal consistency of the Norm Follow scale, its incompatibility with the other OnFire variables and its inability to predict the industry commitment of financial advisors. This indicates a need for further research and development of the Norm Following scale before it can be used with confidence in the OnFire measure.

Optimism

Optimism is defined as the tendency to emphasise the positive aspects in one's life and the belief that the future holds more favourable than unfavourable outcomes (Brown & Taylor, 1988; Burke et al., 2000; Dixon et al., 2003; Peterson & Park, 2004; Scheier & Carver, 1985). The factor structure of the OnFire Optimism scale was explored and it was determined that the scale had one factor with an acceptable alpha reliability. The Optimism scale had the highest mean of all the OnFire variables. This indicates that the participants in the sample were more likely to agree with OnFire Optimism items.

In order to assess the convergent validity of the scale, it was predicted that OnFire Optimism would be positively and significantly correlated with the previously established IPIP Optimism scale. The results showed that the OnFire Optimism scale had a significant relationship that met the correlation criterion with both factors of the IPIP Optimism scale. This suggests an agreement between the OnFire Optimism scale and the IPIP Optimism scale, indicating they are tapping into the same construct.

Intercorrelations between the OnFire variables, as determined by the nomological network, were used to further test the construct validity of the OnFire Optimism scale. The OnFire Optimism scale was predicted to be positively and significantly correlated with the OnFire Extraversion scale and Resilience scale. As previously discussed (see pp.69-70), the OnFire Optimism scale had a positive and significant correlation with both factors of the OnFire Extraversion scale. The OnFire Optimism scale also had a positive and significant correlation with the OnFire Resilience scale that met the correlation criterion. This fits with the prediction identified in the nomological network and can be attributed to shared

emphasis for both optimism and resilience on endurance in the face of obstacles (Avey et al., 2009).

To assess criterion-related validity, the OnFire Optimism scale was predicted to have a positive correlation with industry commitment. The rationale for this hypothesis was based on previous research establishing a relationship between optimism and factors that are linked to industry commitment (Blau, 2007, 2009; Duffy et al., 2011; Jensen et al., 2007; Lounsbury et al., 2007b, 2004c; Youssef & Luthans, 2007). The hypothesis was supported as the correlation criterion was met. This result suggests that individuals committed to the financial services industry are likely to be high in optimism. This thereby suggests that the OnFire Optimism scale is suitable for determining financial advisors' predisposition towards industry commitment.

In summary, the OnFire Optimism scale demonstrated its soundness through internal consistency, convergent validity, nomological network integrity and criterion-related validity. The results of this study therefore psychometrically validate the Optimism scale for use within the OnFire measure.

Resilience

Resilience is defined as an individual's ability to more easily cope or 'bounce back' from adversity (Bernard et al., 2008; Byers et al., 2006; Envick, 2005; Wagnild, 2010; Youssef & Luthans, 2007). The single factor OnFire Resilience scale had an acceptable alpha reliability, thereby establishing its internal consistency. The mean of the OnFire resilience scale was above the midpoint, indicating that the sample participants were more likely to agree with resilience items.

To test convergent validity, the OnFire Resilience scale was predicted to have a positive and significant relationship with Wagnild's (2009) previously established Resilience scale. The hypothesis was supported as the correlation criterion was met. This result suggests an agreement between the two scales on the construct of resilience.

Intercorrelations between the OnFire variables as determined by the nomological network were examined to further assess the construct validity of the OnFire Resilience scale. The OnFire Resilience scale was predicted to have a positive and significant relationship with the OnFire Drive scale and the Optimism scale. As previously discussed, the hypothesis was supported between the OnFire Resilience scale and the OnFire Optimism scale (see pp.76-77), however was not supported between OnFire Resilience and the OnFire Drive scale (see pp.65-66).

In order to assess criterion-related validity, the OnFire Resilience scale was predicted to have a positive correlation with industry commitment. The rationale for this hypothesis was based on previous research establishing a link between resilience and factors that have a relationship with industry commitment (Aryee & Tan, 1992; Blau, 1989, 2007, 2009; Duffy et al., 2011; Larson & Luthans, 2006; Lounsbury et al., 2007b; Luthans et al., 2007; Youssef & Luthans, 2007). The hypothesis was supported as the correlation criterion was met. This result suggests that individuals high in resilience are more likely to be committed to the financial services industry. Thus it was established that the OnFire Resilience scale is suitable for determining financial advisors' predisposition towards industry commitment.

In summary, the results of this study psychometrically validate the Resilience scale for use within the OnFire measure due to its acceptable internal consistency, convergent validity and criterion-related validity.

Discussion Summary

The study assessed the psychometric validity of each of the six scales within the OnFire measure. It was determined that the Inner Drive factor, Influence scale, Optimism scale and Resilience scale are suitable for predicting financial advisors' predisposition towards industry commitment. However, additional research is required to evaluate and develop the scales that were not psychometrically validated in the study. The low alpha reliabilities of the Workaholism factor and both factors of the Extraversion and Norm Following scales suggest that items may require further evaluation and development in order to identify more reliable scales and demonstrate internal consistency. The Workaholism and Process Following factors' inability to achieve convergent validity emphasises the need to establish a significant relationship between these factors and previously established measures of relevant constructs. Testing the integrity of the nomological network provided mixed evidence of the construct validity of the OnFire scales. Finally, the lack of criterion-related validity of the Workaholism factor, Extraversion scale and Norm following scale emphasises the need for further research to identify their relevance to financial advisors in order to justify their inclusion within the OnFire measure.

Limitations

The study was subject to a number of limitations. The first limitation was the reliance on a self-report measure. The use of self-report data is based on the assumption that the best way to learn about an individual is to directly ask them (Aziz & Tronzo, 2011; Breakwell, Hammond, Fife-Schaw, & Smith, 2006). However, individuals' self-perceptions can be inaccurate or subject to response biases, which may produce erroneous results (Aziz & Tronzo, 2011; Breakwell et al., 2006). As the study did not show any strong evidence of common method variance and the potential for response biases is typical of all self-report questionnaires, this therefore does not invalidate this research.

The potential for range restriction with the study was considered, as the majority of participants were males with a high level of commitment and long industry tenure. However, this range restriction was likely to be the result of the population demographic as opposed to a sampling issue as the participants demographics are considered typical of the industry (Catalyst, 2012; Mc Manus & Kelly, 1999; Mellor, 2012; Seligman, 1998).

A further limitation was the low response rate of the study (14.9%) which potentially could represent a positive sampling bias. A higher response rate may have strengthened the validity of the study and increased the generalisablilty of the results.

Future Research

There are many potential avenues for future research that were identified in this study. The sample for the current research primarily consisted of well-established financial advisors, with almost 80% of the sample being in the

industry for ten or more years. Examining newcomers to the industry would help build the understanding of how the OnFire traits influence an advisor's likelihood to stay and be committed to the industry. As 70-80% of advisors leave the industry within the first three years, studying newcomers would produce a more pronounced relationship between the OnFire variables and industry tenure and commitment (Mc Manus & Kelly, 1999; Mellor, 2012; Seligman, 1998). This could also be expanded into cross-comparison of individuals who have quit the industry early compared to individuals who stay within the industry.

Another potential avenue for future research could be to examine the OnFire scales' relationship with actual external manifestations of performance. The development of the nomological network identified that all of the OnFire variables have been linked to various performance outcomes (Barling et al., 1990; Conte & Gintoft, 2005; Corr & Gray, 1996; Jensen et al., 2007; Lounsbury et al., 2004a; Mc Manus & Kelly, 1999; Medlin & Green, 2009; Rich, 1999; Seligman, 1998). It can therefore be hypothesised that the OnFire variables could have predictive validity on the performance of financial advisors. Ideally, such a study would be longitudinal and compare newcomers with high scores on the OnFire measure with individuals with low scores on the OnFire measure in order to understand the long-term relationship the OnFire variables have on financial advisors' industry commitment and performance.

Conclusion

The present study explored the psychometric validity of the OnFire measure. The OnFire measure was developed to help predict the industry commitment of financial advisors in response to the high level of turnover within

the industry (Mc Manus & Kelly, 1999; Mellor, 2012; Seligman, 1998). The study found promising results for the Inner Drive factor, Influence scale, Optimism scale and Resilience scale. The psychometric utility of these four scales was demonstrated by the scales' internal consistency, convergent validity with a previously established measure and criterion-related validity with industry commitment. This therefore confirms the four scales' suitability for predicting financial advisors' level of industry commitment.

However, the study also identified limitations within the OnFire measure as it failed to psychometrically validate the Workaholism factor, Extraversion scale and Norm Following scale. These three variables demonstrated poor alpha reliability and failed to achieve criterion-related validity. This indicates that these variables in their current form are unsuitable for predicting the industry commitment of financial advisors. In particular, the Group Following factor of the OnFire Extraversion scale was negatively correlated with industry commitment. This highlights the need for further development and evaluation of these variables to justify their use within the OnFire measure.

Interestingly, the study failed to find a significant relationship between industry tenure and all variables included in the study. This was surprising due to the emphasis within the literature on turnover of advisors. The inability to find a significant relationship for industry tenure was attributed to range restriction in the study where the majority of participants were well established within the industry. This provides the opportunity for future research to explore the influence of the OnFire variables on newcomers to the industry, who are more highly susceptible to industry turnover.

In conclusion, the findings of the present study yielded partial support for the psychometric validity of the OnFire measure. In particular, the Inner Drive factor, Influence scale, Optimism scale and Resilience scale were deemed as suitable for predicting financial advisors industry commitment. However, additional research and development is needed to fully endorse all of the OnFire variables and to establish its validity in predicting the commitment of newcomers to the industry.

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Appendix

Appendix A – Research Summary for Peter, CEO of the PAA.

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THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Mr Peter Leitch
Chairman
Professional Advisors Association
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26 August 2011

Dear Peter,

Thank you for your interest in participating in our research. We are very enthusiastic to have the opportunity to learn more about your members.

Professional advisory is a challenging industry due to the high level of rejection that advisors faced on a daily basis from potential clients. As a result, approximately 80% of advisors entering the field leave the industry within their first two years of professional advisory. This is a costly problem for businesses with the expense of establishing a professional adviser estimated to be around $150,000 (Seligman, 1991). This places a high level of importance on selecting individuals who are more likely to succeed within the industry to reduce the high financial and humanitarian cost of failure.

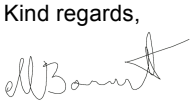
This cost has been identified by practitioners within the industry and has lead to the development of a measure that may help address this issue. The aim of the measure is to help predict individuals' success within the industry using a cognitive behavioural framework. The measure taps into six constructs identified by the measure developers as being significant in determining the success of advisors. These constructs are optimism, norm following, influence, resilience, extroversion and drive. The test has been used within the field for over two years with subjective accounts of success, however the construct validity of the measure has not been statistically confirmed.

The purpose of this research is to statistically validate the measure to determine its suitability for use within the market. This will be done by administering a questionnaire to those who currently operate within the professional advisory industry. With your permission, the questionnaire will be electronically administered to members of the Professional Advisors Association. The study will focus on advisors within the financial, insurance and real estate industries. Participants will be sent an email informing them of the purpose of the study and confirming their rights. The email will contain a link to the questionnaire that can be completed online during a one-week period. Participation will be voluntary and anonymous hence participants' identities will be protected. The aim is to gain a final sample of at least 300 participants. This phase of the project will be followed by the process of data analysis.

The goal is to collect data from the participants during the months of October and November 2011 with the thesis being finalised in July 2012. Upon completion, a summary report will be provided to you for dissemination to your members. I am seeking your approval and support to allow me to circulate the questionnaire to the members of the PAA.

We look forwarded to meeting with you on Wednesday and answering any questions that you may have.

Kind regards,



Melody Bonnett
Masters Student

Donald Cable
Supervisor

Appendix B – Invitation to Participate in Research

Hi [Name],

As part of my masters thesis at the University of Waikato I am conducting research to understand what personality factors predict the success of advisors. Dr Dave McMillan, Director of Development at TNP, has given me permission to contact you because, as a successful advisor, you can help build the understanding of what leads to success in your field.

Your industry is challenging with approximately 80% of advisors who enter the field, leaving within their first two years. The resulting financial and humanitarian costs place a high level of importance on this research to help build an understanding of what makes an individual likely to succeed within the industry.

Your participation can help protect the professionalism of the industry, promote the field and help ensure that this industry attracts people who share the same professionalism as you. To help me, all you need to do is complete a simple, voluntary, entirely anonymous questionnaire that will only take about 15 minutes to complete. The results of the study will be communicated to you via TNP at one of the Seasonal Seminars in 2012.

To be a part of this exciting research, please click here.

To watch a video introducing myself and the research, click here.

Thank you for taking the time to read this letter and I hope we can work together to make this research a success!

Kind regards,

Melody Bonnett

About Me

Intrigued by the fact that many of us will spend the majority of our lives at work, I have dedicated myself to the study of organisational life and understanding what makes workers 'tick'. With a degree in industrial relations, human resource management and psychology already under my belt, I am currently furthering my studies by pursuing a masters in organisational psychology.
I am looking forward to the challenge of undertaking this research and am eager to make my mark in the I/O Psychology industry.

If you have any questions or queries please feel free to email me – mcb16@waikato.ac.nz

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This study has been ethically approved by the School of Psychology Research and Ethics Committee. If you have any questions or concerns regarding the ethics of this research, please contact the convenor of the committee, Lewis Bizo - lbizo@waikato.ac.nz

Appendix C - Questionnaire

Predicting Advisors Success Questionnaire

0% 100%

Welcome to my questionnaire!

This research is part of my masters thesis at the University of Waikato and aims to help build an understanding of what leads to success in your field.

This questionnaire will take about 15 minutes to complete. Remember that it is completely **voluntary** and entirely **anonymous** as there will be no way to identify you.

If you get started now you are welcome to come back and finish the rest later - The progress bar at the top will tell you how much you have got to go.

Thank you for taking the time to complete my questionnaire and helping me to make this research a success!

All the best,

Melody Bonnett

If you have any questions or queries please feel free to email me – mcb16@waikato.ac.nz

This study has been ethically approved by the School of Psychology Research and Ethics Committee. If you have any questions or concerns regarding the ethics of this research, please contact the convenor of the committee, Lewis Bizo - lbizo@waikato.ac.nz

Please look at the following statements and decide "how much does that sound like me"?

You can then select an option which describes how much you agree or disagree that the statement sounds like you.

Remember: Try to answer in a way that describes how you really are and not how you would like to be...

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
1. People say I help them reach difficult decisions.	❍	❍	❍	❍	❍
2. Seek to influence others.	❍	❍	❍	❍	❍
3. I usually take things in stride	❍	❍	❍	❍	❍
4. I am determined	❍	❍	❍	❍	❍
5. When trouble strikes, it is best to focus on the problem rather than the solution.	❍	❍	❍	❍	❍
6. In social situations, I use a broad variety of skills.	❍	❍	❍	❍	❍
7. I look for goodness even in difficult people.	❍	❍	❍	❍	❍
8. People say I am cheerful.	❍	❍	❍	❍	❍
9. Have little to say.	❍	❍	❍	❍	❍
10. Do not tend to stick with what I decide to do.	❍	❍	❍	❍	❍
11. Seldom feel blue.	❍	❍	❍	❍	❍
12. People let you down	❍	❍	❍	❍	❍
13. Finish things despite obstacles in the way.	❍	❍	❍	❍	❍

How much do the following statements describe you?

Please respond in a way that describes how you really are and not how you would like to be...

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
14. When setbacks occur, it takes me a while to rebound.	❍	❍	❍	❍	❍
15. I enjoy being the centre of attention.	❍	❍	❍	❍	❍
16. Can talk others into doing things.	❍	❍	❍	❍	❍
17. When I'm in a big group, I tend to watch rather than participate.	❍	❍	❍	❍	❍
18. Take control of things.	❍	❍	❍	❍	❍
19. I find myself thinking about work, even when I want to get away.	❍	❍	❍	❍	❍
20. This is the ideal profession for a life's work	❍	❍	❍	❍	❍
21. I have plenty of time to undertake personal projects.	❍	❍	❍	❍	❍
22. My life has meaning	❍	❍	❍	❍	❍
23. Am a goal-oriented person.	❍	❍	❍	❍	❍
24. I prefer to try new ideas, than to follow conventional methods.	❍	❍	❍	❍	❍
25. I am disappointed that I ever entered this profession	❍	❍	❍	❍	❍
26. I prefer to seek comfort rather than challenge.	❍	❍	❍	❍	❍

How much do the following statements sound like you?

Again, answer in a way that describes how you really are and not how you would like to be...

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
27. There is something inside me that feels driven to work hard.	❍	❍	❍	❍	❍
28. I feel energised when other people notice my results.	❍	❍	❍	❍	❍
29. Often feel blue.	❍	❍	❍	❍	❍
30. I can get through difficult times because I've experienced difficulty before	❍	❍	❍	❍	❍
31. I usually manage one way or another.	❍	❍	❍	❍	❍
32. I definitely want a career for myself in this profession	❍	❍	❍	❍	❍
33. Have a dark outlook on the future.	❍	❍	❍	❍	❍
34. Don't care what others think.	❍	❍	❍	❍	❍
35. I prefer to work with the group, than to find my own way through things.	❍	❍	❍	❍	❍
36. People say I help motivate them.	❍	❍	❍	❍	❍
37. I feel guilty when I take time off work.	❍	❍	❍	❍	❍
38. I embrace change.	❍	❍	❍	❍	❍
39. When I experience negative feelings, it takes a while to move on.	❍	❍	❍	❍	❍

How much do you agree or disagree that the following statements sound like you?

Remember to answer in a way that describes how you really are and not how you would like to be...

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
40. It’s hard to change people’s minds.	❍	❍	❍	❍	❍
41. I take time out to care for myself.	❍	❍	❍	❍	❍
42. Want to amount to something special in others' eyes.	❍	❍	❍	❍	❍
43. I have a variety of people who support me when things are tough.	❍	❍	❍	❍	❍
44. I prefer familiar events to new experiences.	❍	❍	❍	❍	❍
45. Make friends easily.	❍	❍	❍	❍	❍
46. I object to people who get around rules without being detected.	❍	❍	❍	❍	❍
47. I dress like others to fit in with the group.	❍	❍	❍	❍	❍
48. Feel it's OK that some people don't like me.	❍	❍	❍	❍	❍
49. When I am talking to someone, I imagine how they are feeling.	❍	❍	❍	❍	❍
50. Am the life of the party.	❍	❍	❍	❍	❍
51. Worry about what people think of me.	❍	❍	❍	❍	❍
52. Need the approval of others.	❍	❍	❍	❍	❍

Sound like you?

Please answer in a way that describes how you really are and not how you would like to be...

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
53. In an emergency, I'm someone people can generally rely on	❍	❍	❍	❍	❍
54. I look for the positive aspects of tough situations.	❍	❍	❍	❍	❍
55. I set long term goals.	❍	❍	❍	❍	❍
56. Don't like to draw attention to myself.	❍	❍	❍	❍	❍
57. I like this career too well to give it up	❍	❍	❍	❍	❍
58. It's important to work hard at every task.	❍	❍	❍	❍	❍
59. I feel proud that I have accomplished things in life	❍	❍	❍	❍	❍
60. I am friends with myself	❍	❍	❍	❍	❍
61. Want to be different from others.	❍	❍	❍	❍	❍
62. Keep in the background.	❍	❍	❍	❍	❍
63. Try to lead others.	❍	❍	❍	❍	❍
64. Would describe my experiences as somewhat dull.	❍	❍	❍	❍	❍
65. Conform to others' opinions.	❍	❍	❍	❍	❍

Over half way!

How much do the following statements sound like you?

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
66. I find it draining to be around unfamiliar people.	❍	❍	❍	❍	❍
67. People ask me to help them with personal matters.	❍	❍	❍	❍	❍
68. I spend more time thinking about past events than the future.	❍	❍	❍	❍	❍
69. I review my performance so I can learn from experience.	❍	❍	❍	❍	❍
70. Feel comfortable around people.	❍	❍	❍	❍	❍
71. Hold back my opinions.	❍	❍	❍	❍	❍
72. I have an inner compulsion to work hard.	❍	❍	❍	❍	❍
73. I am energised by stories of success.	❍	❍	❍	❍	❍
74. Just know that I will be a success.	❍	❍	❍	❍	❍
75. I feel obliged to put in my maximum effort, even when it's not enjoyable.	❍	❍	❍	❍	❍
76. Dislike myself.	❍	❍	❍	❍	❍
77. Know how to captivate people.	❍	❍	❍	❍	❍
78. Do what others do.	❍	❍	❍	❍	❍

How much do the following statements sound like you?

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
79. I feel that I can handle many things at a time.	❍	❍	❍	❍	❍
80. When I'm in a crowd of people, I prefer to blend in.	❍	❍	❍	❍	❍
81. I follow instructions precisely.	❍	❍	❍	❍	❍
82. If I had all the money I needed without working, I would probably still continue to work in this profession	❍	❍	❍	❍	❍
83. In a difficult situation I know which inner strengths to use.	❍	❍	❍	❍	❍
84. Don't quit a task before it is finished.	❍	❍	❍	❍	❍
85. It's acceptable to modify workplace standards to meet my own needs.	❍	❍	❍	❍	❍
86. When I speak with someone, I use different ways to get my point across.	❍	❍	❍	❍	❍
87. I make new friends.	❍	❍	❍	❍	❍
88. Success is achievable.	❍	❍	❍	❍	❍
89. My belief in myself gets me through hard times	❍	❍	❍	❍	❍
90. People ignore my recommendations.	❍	❍	❍	❍	❍

Getting there...

How much do the following statements sound like you?

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
91. I value respect for rules, more than individual choice.	❍	❍	❍	❍	❍
92. Don't like to draw attention to myself.	❍	❍	❍	❍	❍
93. I am effective at getting people's attention when I want to speak.	❍	❍	❍	❍	❍
94. I have self-discipline.	❍	❍	❍	❍	❍
95. Feel comfortable with myself.	❍	❍	❍	❍	❍
96. Am not concerned with making a good impression.	❍	❍	❍	❍	❍
97. Don't finish what I start.	❍	❍	❍	❍	❍
98. Give up easily.	❍	❍	❍	❍	❍
99. I conform to other people's expectations.	❍	❍	❍	❍	❍
100. Keep in the background.	❍	❍	❍	❍	❍
101. If I could do it all over again, I would choose not to work in this profession	❍	❍	❍	❍	❍
102. Don't get sidetracked when I work.	❍	❍	❍	❍	❍

How much do the following statements sound like you?

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
103. When I'm in a difficult situation, I can usually find my way out of it	❍	❍	❍	❍	❍
104. I use a variety of skills to manage stress.	❍	❍	❍	❍	❍
105. Am often in a bad mood.	❍	❍	❍	❍	❍
106.Have little to say.	❍	❍	❍	❍	❍
107. People ask me to explain things, when I think I've already made it clear.	❍	❍	❍	❍	❍
108. Feel that my life lacks direction.	❍	❍	❍	❍	❍
109. I can usually find something to laugh about.	❍	❍	❍	❍	❍
110. Want to form my own opinions.	❍	❍	❍	❍	❍
111. Take charge.	❍	❍	❍	❍	❍
112. People say that I am perceptive.	❍	❍	❍	❍	❍
113. I express my ideas.	❍	❍	❍	❍	❍
114. If I could go into a different profession which paid the same, I would probably take it	❍	❍	❍	❍	❍

Almost there... How much do the following statements sound like you?

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
115. Look at the bright side of life.	❍	❍	❍	❍	❍
116. I keep interested in things	❍	❍	❍	❍	❍
117. Wait for others to lead the way.	❍	❍	❍	❍	❍
118. I prefer to be at the centre of action, than to watch from the side.	❍	❍	❍	❍	❍
119. Given the choice, I prefer to work alone.	❍	❍	❍	❍	❍
120. Don't talk a lot.	❍	❍	❍	❍	❍
121. See difficulties everywhere.	❍	❍	❍	❍	❍
122. I prefer situations without clear rules.	❍	❍	❍	❍	❍
123. Am a hard worker.	❍	❍	❍	❍	❍
124. I use a variety of strategies to get through difficult times.	❍	❍	❍	❍	❍
125. Am skilled in handling social situations.	❍	❍	❍	❍	❍
126. I believe I can achieve anything, if it is important enough.	❍	❍	❍	❍	❍

...and a few quick demographic questions to finish it off:

What is your gender?

- ❍ Male
- ❍ Female

What is your age?

Approximately how many years have you been in the industry?

Approximately how many years have you been in your current role?

Any further comments?

Phew! All finished!

After crunching some data, Peter (the chairman of the PAA) will let you know what I found through the PAA newsletter.

I thank you *very* much for taking the time to complete my questionnaire and helping me to make my research a success!

I wish you all the best for the future,

Kind regards,

Melody Bonnett

Appendix D – Description of OnFire Items

Item	Scale
69. I review my performance so I can learn from experience.	Resilience
43. I have a variety of people who support me when things are tough.	Resilience
38. I embrace change.	Resilience
104. I use a variety of skills to manage stress.	Resilience
39. When I experience negative feelings, it takes a while to move on. (r)	Resilience
68. I spend more time thinking about past events than the future. (r)	Resilience
41. I take time out to care for myself.	Resilience
14. When setbacks occur, it takes me a while to rebound. (r)	Resilience
124. I use a variety of strategies to get through difficult times.	Resilience
83. In a difficult situation I know which inner strengths to use.	Resilience
54. I look for the positive aspects of tough situations.	Optimism
12. People let you down (r)	Optimism
5. When trouble strikes, it is best to focus on the problem rather than the solution. (r)	Optimism
26. I prefer to seek comfort rather than challenge. (r)	Optimism
88. Success is achievable.	Optimism
7. I look for goodness even in difficult people.	Optimism
73. I am energised by stories of success.	Optimism
55. I set long term goals.	Optimism
126. I believe I can achieve anything, if it is important enough.	Optimism
8. People say I am cheerful.	Optimism
85. It's acceptable to modify workplace standards to meet my own needs. (r)	Norm Following
99. I conform to other people's expectations.	Norm Following
80. When I'm in a crowd of people, I prefer to blend in.	Norm Following
91. I value respect for rules, more than individual choice.	Norm Following
24. I prefer to try new ideas, than to follow conventional methods. (r)	Norm Following
122. I prefer situations without clear rules. (r)	Norm Following
81. I follow instructions precisely.	Norm Following
47. I dress like others to fit in with the group.	Norm Following
46. I object to people who get around rules without being detected.	Norm Following
35. I prefer to work with the group, than to find my own way through things.	Norm Following
67. People ask me to help them with personal matters.	Influence
93. I am effective at getting people's attention when I want to speak.	Influence
36. People say I help motivate them.	Influence
90. People ignore my recommendations. (r)	Influence
49. When I am talking to someone, I imagine how they are feeling.	Influence
1. People say I help them reach difficult decisions.	Influence
40. It's hard to change people's minds. (r)	Influence
86. When I speak with someone, I use different ways to get my point across.	Influence
107. People ask me to explain things, when I think I've already made it clear. (r)	Influence
112. People say that I am perceptive.	Influence

Note: (r) = Item reverse coded

Item	Scale
87. I make new friends	Extraversion
17. When I'm in a big group, I tend to watch rather than participate. (r)	Extraversion
118. I prefer to be at the center of action, than to watch from the side.	Extraversion
113. I express my ideas.	Extraversion
28. I feel energised when other people notice my results.	Extraversion
66. I find it draining to be around unfamiliar people. (r)	Extraversion
6. In social situations, I use a broad variety of skills.	Extraversion
119. Given the choice, I prefer to work alone. (r)	Extraversion
15. I enjoy being the center of attention.	Extraversion
44. I prefer familiar events to new experiences. (r)	Extraversion
19. I find myself thinking about work, even when I want to get away.	Drive
58. It's important to work hard at every task.	Drive
75. I feel obliged to put in my maximum effort, even when it's not enjoyable.	Drive
27. There is something inside me that feels driven to work hard.	Drive
37. I feel guilty when I take time off work.	Drive
72. I have an inner compulsion to work hard.	Drive
21. I have plenty of time to undertake personal projects. (r)	Drive

Note: (r) = Item reverse coded

Appendix E – Factor Analysis Scree Plots and Factor Loadings

Figure E.1 - OnFire Drive Scree Plot

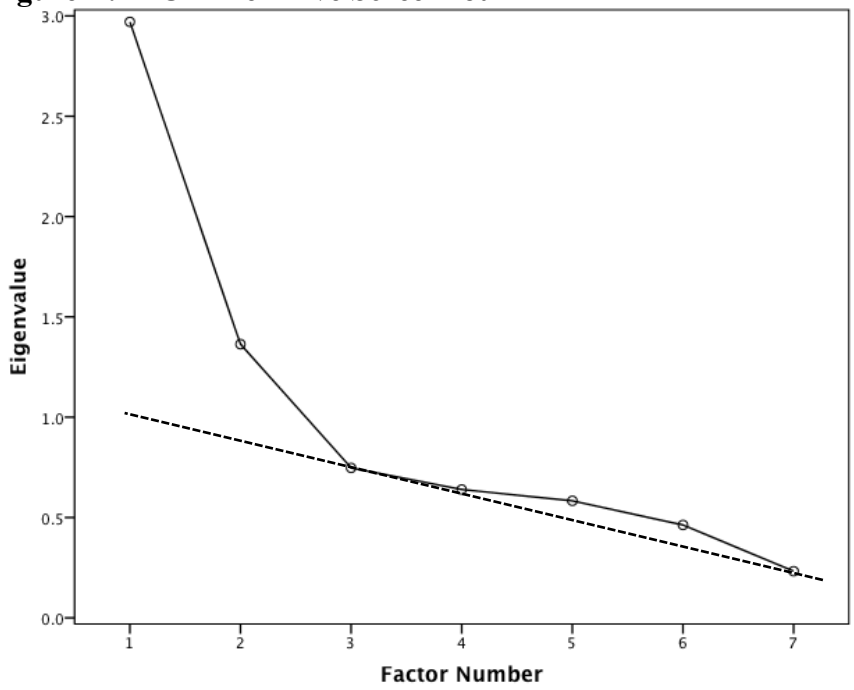

Table E.1 - Factor Loadings of OnFire Drive Items

Item #	Item	Factor 1	Factor 2
72	I have an inner compulsion to work hard.	0.83	0.13
58	It's important to work hard at every task.	0.72	-0.10
27	There is something inside me that feels driven to work hard.	0.71	0.07
75	I feel obliged to put in my maximum effort, even when it's not enjoyable.	0.63	0.00
19	I find myself thinking about work, even when I want to get away.	0.16	0.58
37	I feel guilty when I take time off work.	0.14	0.55
21	I have plenty of time to undertake personal projects.	-0.13	0.54
Eigenvalues		2.97	1.36
% Variance Explained		42.44	19.48
Alpha		0.82	0.59

Figure E.2 - IPIP Drive Scree Plot

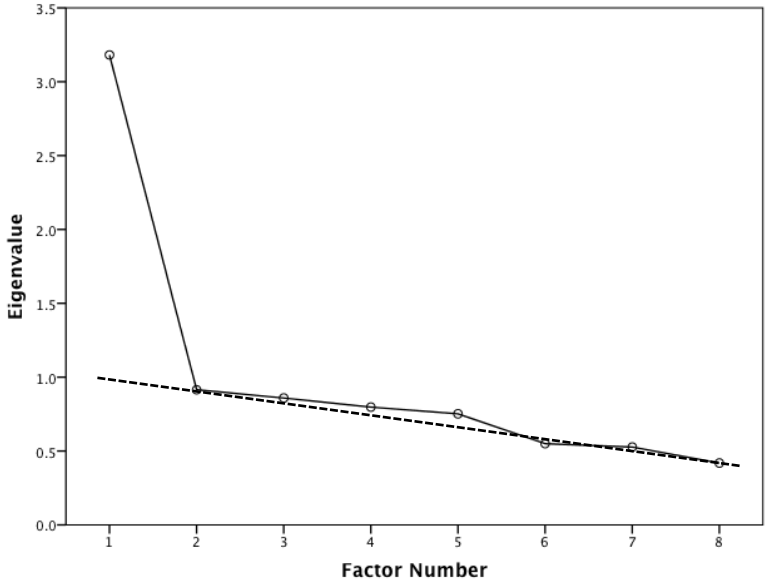

Table E.2 - Factor Loadings of IPIP Drive Items

Item #	Item	Factor 1
84	Don't quit a task before it is finished.	0.74
13	Finish things despite obstacles in the way.	0.65
97	Don't finish what I start. (r)	0.65
98	Give up easily. (r)	0.53
102	Don't get sidetracked when I work.	0.51
123	Am a hard worker.	0.47
10	Do not tend to stick with what I decide to do. (r)	0.46
23	Am a goal-oriented person.	0.42
Eigenvalue		3.18
% Variance Explained		39.77
Alpha		0.77

Note: (r) = Item reverse coded

Figure E.3 - OnFire Extraversion Scree Plot

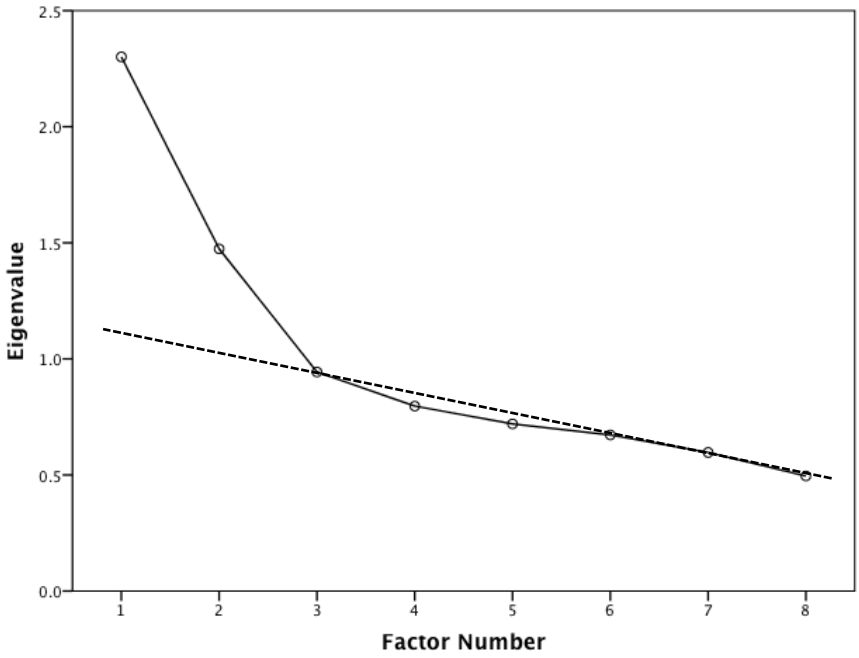

Table E.3 - Factor Loadings of OnFire Extraversion items

Item #	Item	Factor 1	Factor 2
15	I enjoy being the centre of attention.	0.73	-0.07
118	I prefer to be at the centre of action, than to watch from the side.	0.61	0.16
17	When I'm in a big group, I tend to watch rather than participate. (r)	0.54	-0.01
28	I feel energised when other people notice my results.	0.41	-0.02
6	In social situations, I use a broad variety of skills.	-0.06	0.61
87	I make new friends.	0.05	0.53
113	I express my ideas.	0.21	0.46
44	I prefer familiar events to new experiences.	-0.05	0.32
Eigenvalues		2.30	1.47
% Variance Explained		28.76	18.43
Alpha		0.66	0.53

Note: (r) = Item reverse coded

Figure E.4 - IPIP Extraversion Scree Plot

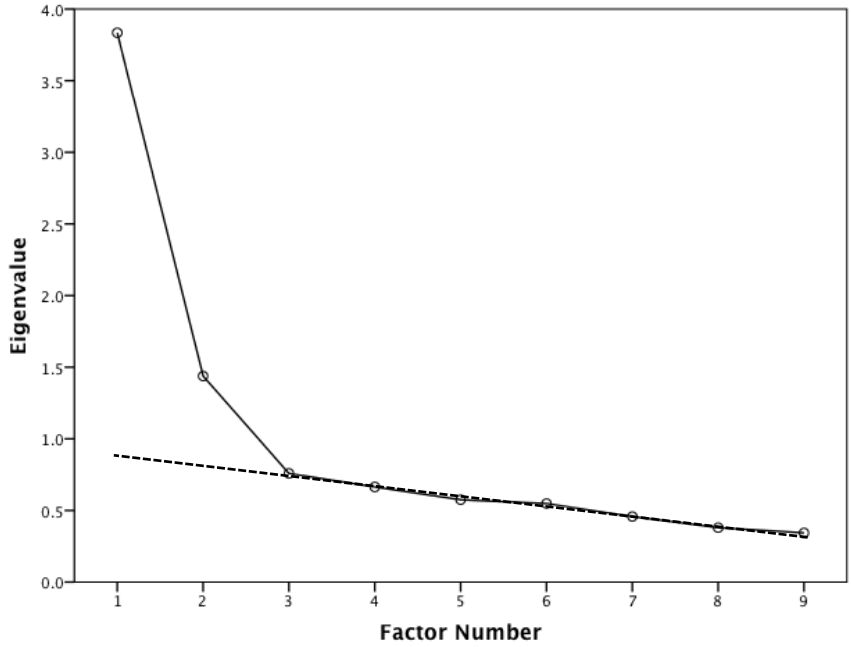

Table E.4 - Factor Loadings of IPIP Extraversion Items

Item #	Item	Factor 1	Factor 2
92	Don't like to draw attention to myself. (r)	0.78	-0.03
120	Don't talk a lot. (r)	0.77	-0.13
9	Have little to say. (r)	0.65	0.01
100	Keep in the background. (r)	0.60	0.17
50	Am the life of the party.	0.51	0.20
125	Am skilled in handling social situations.	-0.02	0.78
45	Make friends easily.	-0.09	0.75
70	Feel comfortable around people.	0.10	0.58
77	Know how to captivate people.	0.27	0.42
Eigenvalue		3.84	1.44
% Variance Explained		42.61	15.98
Alpha		0.81	0.75

Note: (r) = Item reverse coded

Figure E.5 - OnFire Influence Scree Plot

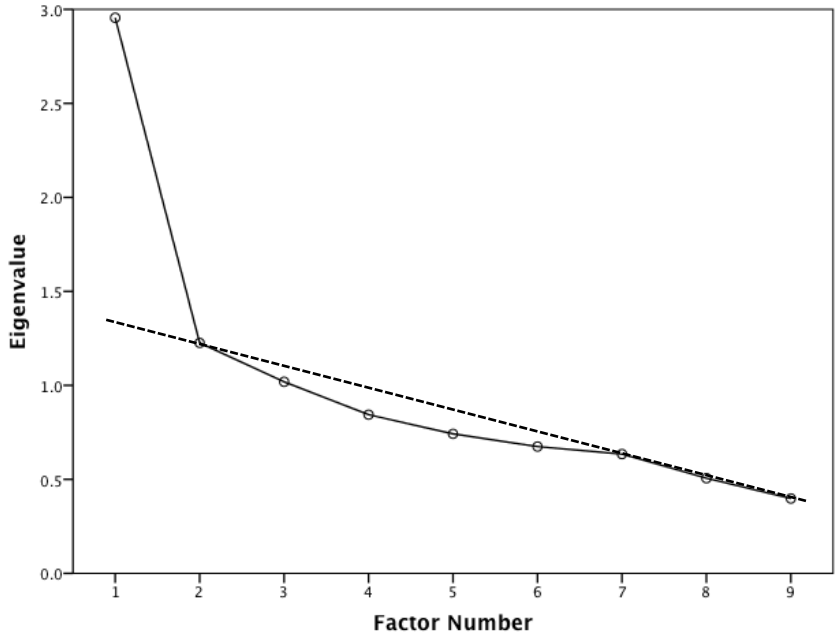

Table E.5 - Factor Loadings of OnFire Influence Items

Item #	Item	Factor 1
67	People ask me to help them with personal matters.	0.60
36	People say I help motivate them.	0.60
1	People say I help them reach difficult decisions.	0.57
112	People say that I am perceptive.	0.53
49	When I am talking to someone, I imagine how they are feeling.	0.49
93	I am effective at getting people's attention when I want to speak.	0.48
90	People ignore my recommendations. (r)	0.40
86	When I speak with someone, I use different ways to get my point across.	0.40
40	It's hard to change people's minds. (r)	0.33
Eigenvalue		2.96
% Variance Explained		32.84
Alpha		0.74

Note: (r) = Reverse coded

Figure E.6 - IPIP Influence Scree Plot

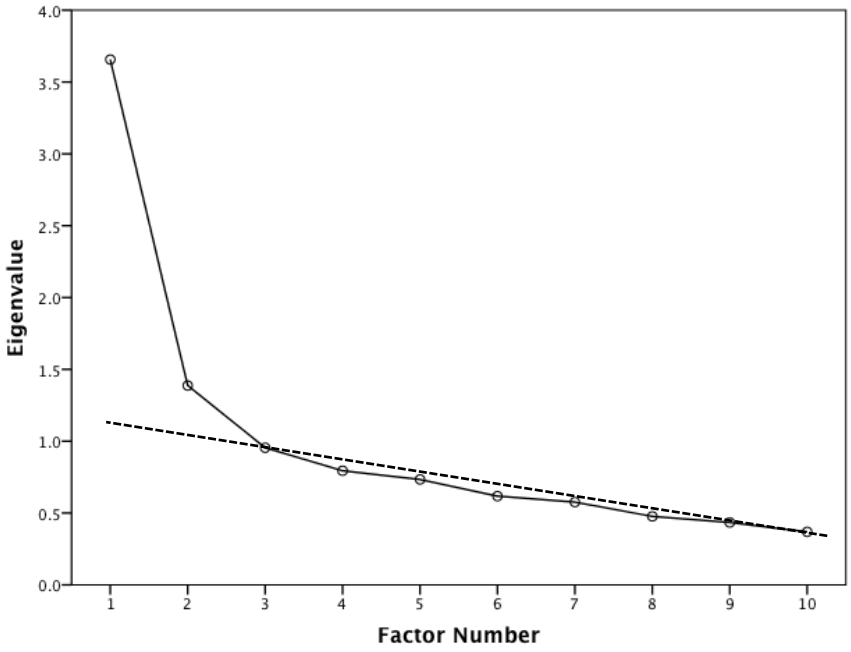

Table E.6 - Factor Loadings of IPIP Influence Items

Item #	Item	Factor 1	Factor 2
111	Take charge.	0.81	0.14
18	Take control of things.	0.61	0.06
63	Try to lead others.	0.55	-0.10
16	Can talk others into doing things.	0.52	-0.16
2	Seek to influence others.	0.41	-0.06
117	Wait for others to lead the way. (r)	0.37	-0.26
62	Keep in the background. (r)	-0.12	-0.85
56	Don't like to draw attention to myself. (r)	0.01	-0.66
106	Have little to say. (r)	0.08	-0.64
71	Hold back my opinions. (r)	0.11	-0.43
Eigenvalue		3.66	1.39
% Variance Explained		36.57	13.88
Alpha		0.74	0.75

Note: (r) = Reverse coded

Figure E.7 - OnFire Norm Following Scree Plot

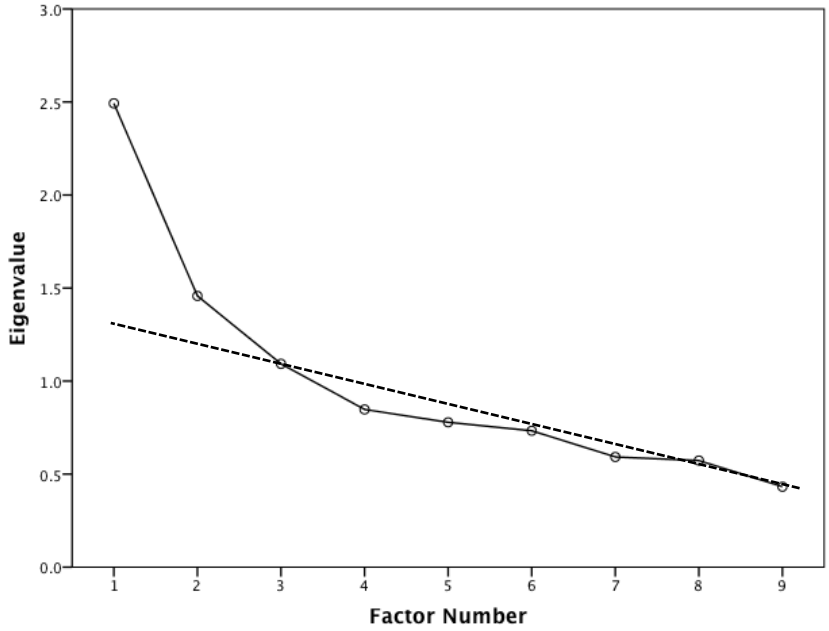

Table E.7 - Factor Loadings of OnFire Norm Following Items

Item #	Item	Factor 1	Factor 2
91	I value respect for rules, more than individual choice.	0.66	0.31
46	I object to people who get around rules without being detected.	0.65	-0.05
81	I follow instructions precisely.	0.57	0.05
122	I prefer situations without clear rules. (r)	0.44	0.14
85	It's acceptable to modify workplace standards to meet my own needs. (r)	0.33	-0.10
35	I prefer to work with the group, than to find my own way through things.	-0.04	0.54
47	I dress like others to fit in with the group.	-0.09	0.47
99	I conform to other people's expectations.	0.11	0.45
24	I prefer to try new ideas, than to follow conventional methods. (r)	0.07	0.35
Eigenvalue		2.49	1.46
% Variance Explained		27.70	16.20
Alpha		0.66	0.51

Note: (r) = Reverse coded

Figure E.8 - IPIP Norm Following Scree Plot

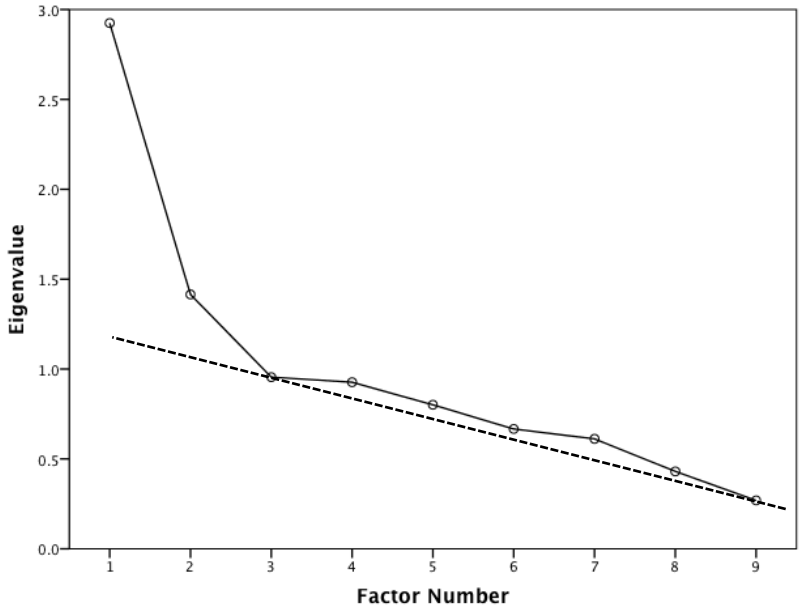

Table E.8 - Factor Loadings of IPIP Norm Following Items

Item #	Item	Factor 1	Factor 2
51	Worry about what people think of me.	0.74	0.18
52	Need the approval of others.	0.71	0.20
42	Want to amount to something special in others' eyes.	0.56	-0.19
34	Don't care what others think. (r)	0.37	0.17
96	Am not concerned with making a good impression. (r)	0.36	0.02
78	Do what others do.	0.01	0.69
65	Conform to others' opinions.	0.01	0.69
110	Want to form my own opinions. (r)	0.02	0.37
61	Want to be different from others. (r)	0.02	0.35
Eigenvalue		2.93	1.42
% Variance Explained		32.50	15.72
Alpha		0.71	0.59

Note: (r) = Reverse coded

Figure E.9 - OnFire Optimism Scree Plot

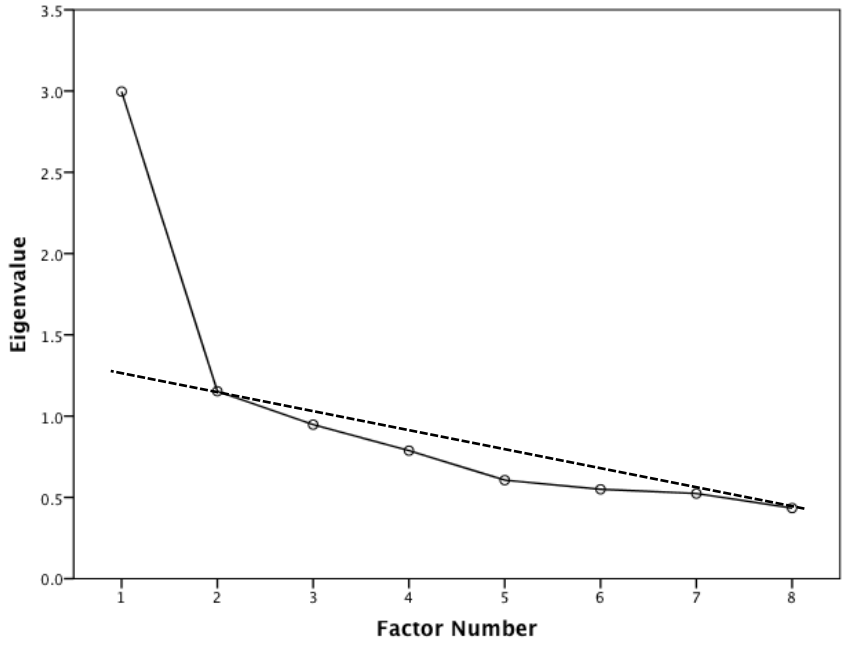

Table E.9 - Factor Loadings of OnFire Optimism Items

Item #	Item	Factor 1
88	Success is achievable.	0.73
54	I look for the positive aspects of tough situations.	0.67
55	I set long term goals.	0.61
126	I believe I can achieve anything, if it is important enough.	0.57
73	I am energised by stories of success.	0.51
8	People say I am cheerful.	0.41
26	I prefer to seek comfort rather than challenge. (r)	0.38
7	I look for goodness even in difficult people.	0.32
Eigenvalue		3.00
% Variance Explained		37.46
Alpha		0.73

Note: (r) = Reverse coded

Figure E.10 - IPIP Optimism Scree Plot

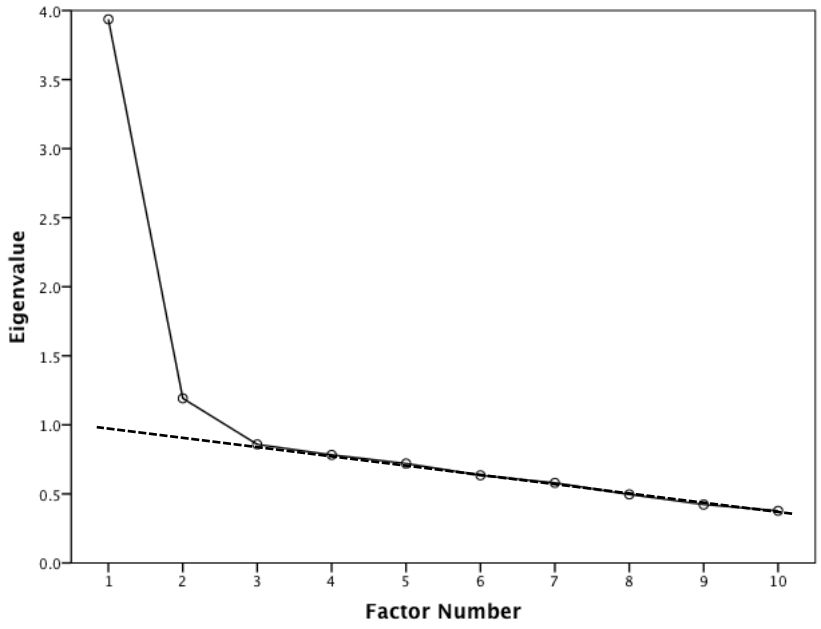

Table E.10 - Factor Loadings of IPIP Optimism Items

Item #	Item	Factor 1	Factor 2
76	Dislike myself. (r)	0.86	-0.07
95	Feel comfortable with myself.	0.69	-0.02
108	Feel that my life lacks direction. (r)	0.56	-0.04
33	Have a dark outlook on the future. (r)	0.47	0.23
74	Just know that I will be a success.	0.35	0.06
29	Often feel blue. (r)	0.06	0.76
105	Am often in a bad mood. (r)	-0.10	0.69
11	Seldom feel blue.	0.07	0.61
121	See difficulties everywhere. (r)	0.27	0.34
115	Look at the bright side of life.	0.30	0.33
Eigenvalue		3.94	1.19
% Variance Explained		39.37	11.92
Alpha		0.73	0.75

Note: (r) = Reverse coded

Figure E.11 - OnFire Resilience Scree Plot

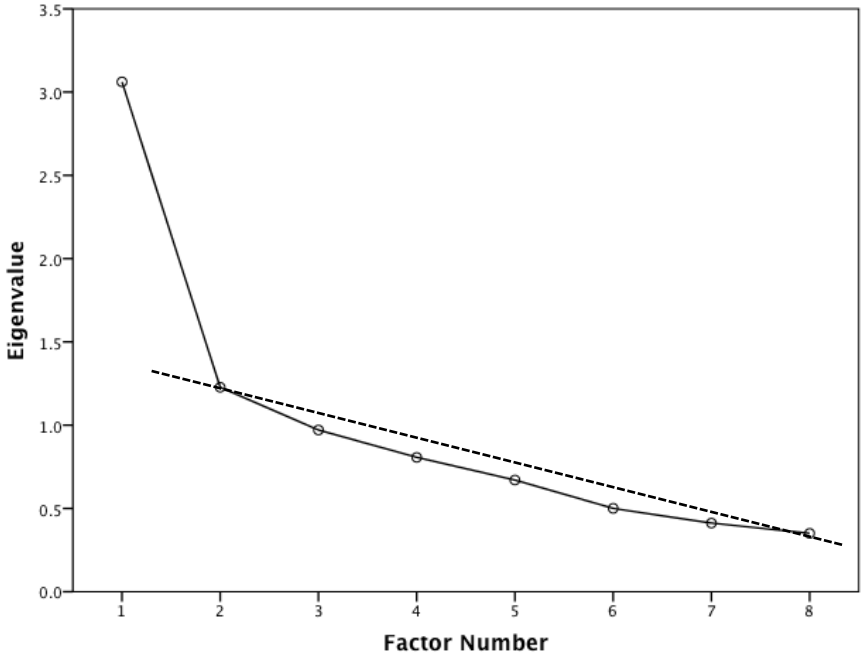

Table E.11 - Factor Loadings of OnFire Resilience Items

Item #	Item	Factor 1
104	I use a variety of skills to manage stress.	0.69
83	In a difficult situation I know which inner strengths to use.	0.68
124	I use a variety of strategies to get through difficult times.	0.58
39	When I experience negative feelings, it takes a while to move on. (r)	0.58
38	I embrace change.	0.54
14	When setbacks occur, it takes me a while to rebound. (r)	0.50
68	I spend more time thinking about past events than the future. (r)	0.38
41	I take time out to care for myself.	0.34
Eigenvalue		3.06
% Variance Explained		38.27
Alpha		0.75

Note: (r) = Reverse coded

Figure E.12 – Wagnilds (2009) Resilience Scree Plot

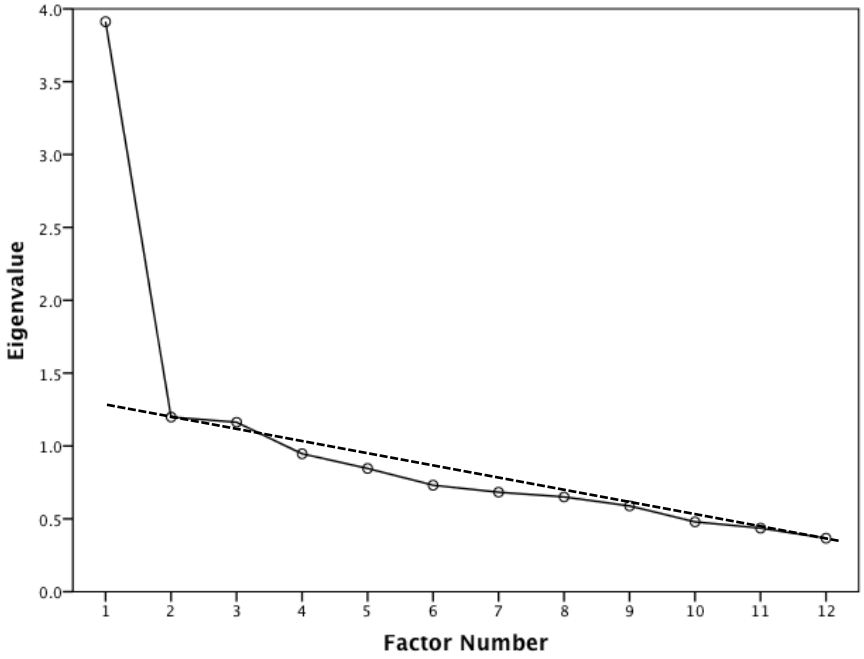

Table E.12 - Factor Loadings of Wagnilds (2009) Resilience Items

Item #	Item	Factor 1
31	I usually manage one way or another.	0.67
89	My belief in myself gets me through hard times.	0.63
59	I feel proud that I have accomplished things in life.	0.63
103	When I'm in a difficult situation, I can usually find my way out of it.	0.60
30	I can get through difficult times because I've experienced difficulty before.	0.57
53	In an emergency, I'm someone people can generally rely on.	0.50
4	I am determined.	0.49
22	My life has meaning.	0.46
60	I am friends with myself.	0.40
94	I have self-discipline.	0.40
116	I keep interested in things.	0.40
79	I feel that I can handle many things at a time.	0.34
Eigenvalue		3.91
% Variance Explained		32.60
Alpha		0.79

Figure E.13 - Industry Commitment Scree Plot

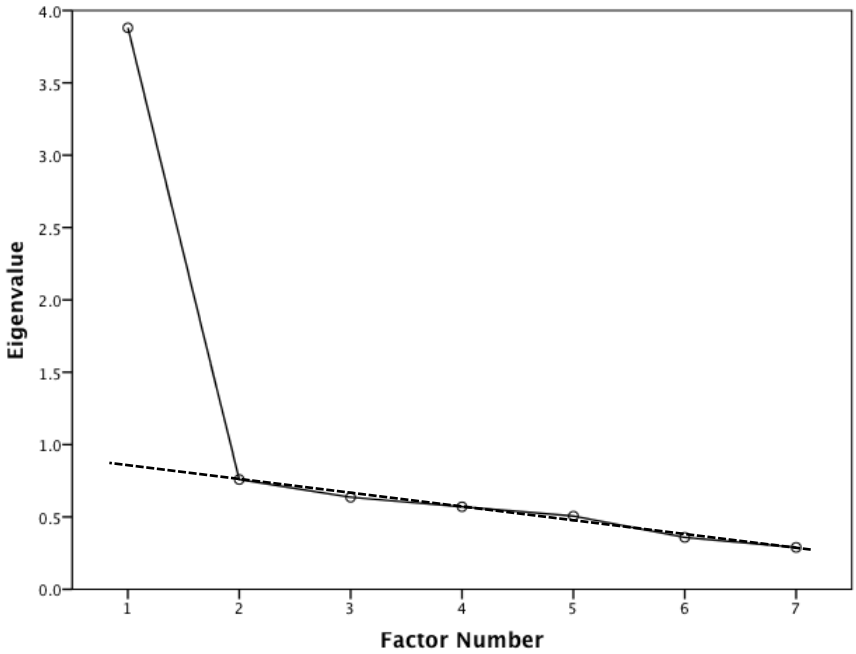

Table E.13 - Factor Loadings of Industry Commitment Items

Item #	Item	Factor 1
32	I definitely want a career for myself in this profession.	0.82
57	I like this career too well to give it up.	0.82
20	This is the ideal profession for a life's work.	0.74
114	If I could go into a different profession which paid the same, I would probably take it. (r)	0.65
82	If I had all the money I needed without working, I would probably still continue to work in this profession.	0.64
101	If I could do it all over again, I would choose not to work in this profession. (r)	0.59
25	I am disappointed that I ever entered this profession. (r)	0.58
Eigenvalue		3.88
% Variance Explained		55.44
Alpha		0.86

Note: (r) = Reverse coded