

The Influence of Personality Traits on Public Services: Evidence in Vietnam

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Abstract--- Since Vietnam transitioned to a market economy, many workers have moved from the public sector to the private sector, along with embezzlement and corruption among workers in the public sector, which were increasing. This fact has received significant attention from domestic and international scientists about public service motivation. However, previous studies only considered external factors. Enrich the references: this study explores the relationship between personality traits and public service motivation. This study was conducted through a cross-sectional survey using a targeted sampling technique (n=500). The SEM model was used to test the hypotheses. The SEM model demonstrated personality traits that positively and significantly impact public service motivation, including Openness, Extraversion, and neuroticism. Furthermore, they are thoroughly and mainly related to public service motivation; personality traits that are not entirely related and significant to public service motivation include Agreeableness and Conscientiousness.

Keywords--- Public Service Motivation, Big Five Personality Traits, Public Service, Vietnam.

I. Introduction

In Vietnam, the transition from a centrally planned and subsidized economy to a market economy, especially the rapid development of the integration period in recent years, has directly affected the work motivation of employees in state agencies (Ho, 2004). Previously, Vietnamese scientists believed that the manifestation of employees' working motivation in state agencies was loyalty to the noble ideals set forth by the Communist Party of Vietnam, such as for the Party, for the people. For the common good, collectivism (Hoang & Nguyen, 2014). However, when Vietnam moved to market economic development, embezzlement and corruption among workers in the public sector increased. An increasing number of workers are moving from the public sector to the private sector (Nguyen, 2010). This fact requires research on motivation to work in the public sector and motivation to serve the public. From this point on, studies on the work motivation of workers in Vietnam have focused on both the public and private sectors (Truong, 2011, Nguyen, 2014; Tung, 2021).

Motivation studies serving Vietnam approach both external factors and internal factors of employees. External factors include salary, bonus and remuneration regimes, working environment, leadership style, promotion opportunities, culture, the attractiveness of the job. Internal factors of employees such as needs, interests, and goals; personal characteristics, cultural background, expertise, skills, demographic characteristics (Hoang & Nguyen, 2014; Truong, 2011; Nguyen, 2014; Nguyen, 2010; Tung, 2021).

Public service motivational studies in Vietnam have also appeared more and more in recent decades. However, most studies focus on understanding factors outside the employees themselves, such as pride, working conditions, promotion opportunities, recognition of individual contributions, salary regime, bonus, social welfare, leadership style (Truong, 2018; Nguyen, 2015), training and promotion opportunities, relationship with superiors, relationship with colleagues, nature of work, conditions (Nguyen Thi Gam, Pham Thi Thu Hang, Hoang Van Giap, Ngo Thi Van, Tran Van Tho. 2019).

Up to now, studies on public service motivation in Vietnam approaching from personality factors are still absent. Meanwhile, the study of public service motivation approaching from the employee's personality factor is significant. According to Perry & Wise (1990), personality or personal values are extremely important for people working in the public sector and those working in the public service sector. Public service motives include the underlying motives for employees working in public institutions. Individuals who may be best suited to work in public institutions and those best able to serve the public have a high index of public service motivation (Perry, 2000). Lewis & Alonso (1999) determined that a positive and direct relationship exists between public service motivation and job performance (Frey & Oberholzer-Gee, 1997; Le Grand, 2003; Perry & Bright, 1990; Petrovsky, 2009). In addition, it has also been found that employees with higher public service motivation have higher job satisfaction and higher levels of job commitment and loyalty to their organizations. surname (Behaj, 2012; Camilleri & Heijden 2007). According to Crewson (1997), public employees value their services more than private-sector employees.

It is a quantitative study exploring the relationship between individual personality traits and motivation to serve the public to bridge this gap. This study first complements the theory of personality traits and public service

motivation, then provides a basis for human resource policymakers of the government and local authorities at all levels in Vietnam for reference to have appropriate human resource policies working in the public sector.

II. Literature Reviews

Public Service Motivation

Perry & Wise (1990) define public service motivation as an individual's orientation to satisfy primary or sole motives in public institutions. Subsequent studies by (Brewer & Selden, 1998; Perry, 1996; Perry & Wise, 1990; Wamsley & Wolf, 1990) have provided additional proof of this concept. According to Perry & Wise (1990), public service motivation includes four aspects: (1). Attraction to public policy formulation. This aspect belongs to rational motives and is related to being motivated to engage the public sector to participate in public policymaking, thereby strengthening self-image and self-importance by strengthening self-image and self-importance. stronger (Perry & Wise, 1990); (2). Commitment towards the public interest and this aspect is related to normative motivation and implies a commitment of public officials to the concern of the public interest, i.e., being more motivated to ensure that the common good is met rather than prioritizing others something on purpose (Perry & Wise, 1990); (3). Compassion towards the public. This aspect implies that a public servant is more motivated to participate in the public sector because of their altruistic nature. they sympathize with the public and can do everything to make people lead a comfortable life. roof (Perry & Wise, 1990); (4). Self-sacrifice. It implies that public employees are motivated to enter the public sector because they want to work for a greater purpose than their personal needs. In essence, they are motivated to give up their self-interest for the well-being of the people (Perry & Wise, 1990). Studies by (Perry 1996; Perry, 1997; Perry & Wise, 1990) suggest that these aspects belong to three motives that are broadly classified as (i) rational motives, (ii) criteria-based motives, normative (iii), and effective motives (Perry, 1996).

Public service motivation is expressed as a type of motivation that is particularly relevant to public institutions. Public service motivation includes beliefs, attitudes, and values that motivate employees to act in their interests beyond their own (Li & Liu, 2014). Furthermore, public service motivation is proposed as a tool to overcome incentive problems in the public sector and to increase performance (Homborg & McCarthy, 2015). Subsequent studies on public service dynamics are applied in different fields and purposes. E.g., Buelens & Broeck (2007) discover that wages and development opportunities are less critical for workers in the public sector (Choi 2001), in his study, in which he compared public service motivations of people working in the private and public sectors, showed a higher sense of public service towards workers. Public service motivation is not a phenomenon valid only in the public sector as it relates to all areas of work (Bozeman & Su, 2015). Public organization employees are motivated based on sensitivity to social issues and willingness to serve in the public interest (Houston, 2000). Perry & Wise (1990) argue that public service motivation significantly influences employees' attitudes and behavior; the analysis of public service motivation is fundamental. Public service motivation is considered a method of increasing the quality of public services (Myers, 2008). Li & Wang (2016) found that people with high public service motivation value their studies more and expect higher job satisfaction such as Andersen, Heinesen, & Pedersen (2014) suggested that the impact of public service motivation on student achievement led to the conclusion that students' test scores of teachers have public service motivation with higher.

Public service motives include the underlying motives for employees working in public institutions. According to Crewson (1997), public employees value their services more than private-sector employees. Individuals who may be best suited to work in public institutions and those best able to serve the public have a high index of public service motivation (Perry, 2000). Lewis & Alonso (1999) determined that a positive and direct relationship exists between public service motivation and performance (Frey & Oberholzer-Gee, 1997; Le Grand, 2003; Perry & Bright, 1990; Petrovsky, 2009). In addition, it has also been found that employees with higher public service motivation have higher job satisfaction and higher levels of job commitment and loyalty to their organizations. surname (Behaj, 2012; Camilleri & Heijden, 2007; Tung, 2022; Tung 2021).

The Big Five Personality Traits

Many theories of personality are present about personality, including those of Sigmund Freud, Carl Jung, Alfred Adler, Walter Mischel, Albert Bandura, of which the Big Five Personality model has been developed to make measuring personality measurement becomes as manageable and accurate as possible (Cattell, Eber, & Tatsuoka, 1988; Costa & McCrae, 1995; Fiske, 1949; Goldberg, 1993; Tupes & Christal, 1992). The Big Five model due was developed by Lew Goldberg. According to this model, personality can be measured based on five essential characteristics, including extraversion (Extraversion), conscientiousness (Conscientiousness), agreeableness (Agreeableness), willingness to experience (Open to experience), and Neuroticism. The body of research has revealed that personality has a significant impact on an individual's working life, thus describing that the five major

personality traits have different influences on an individual's behavior and attitudes level. Each personality trait affects individual behavior differently.

The Big Five Personality Traits have evolved over the years, beginning with the work of DW Fiske (1949) and later being extended by other researchers (Norman, 1967, Smith, 1967, Goldberg, 1981, McCrae & Costa, 1987). Psychologists suggest that personality can be summarized by five traits known as the Big Five (John, Naumann & Soto 2008; McCrae & Costa, 2008). Various methods then analyzed the Big Five, and the researchers concluded that, at an extensive abstraction level, the Big Five captures the main dimensions of individual variation (John, Naumann, & Soto, 2008; McCrae & Costa 2008). The five core characteristics of the Big Five model are extroversion, agreeableness, openness, conscientiousness, and sensitivity (Gerber et al., 2010). Specifically, the Extraversion personality is characterized by extraversion, expressiveness, sociability, self-confidence, communication, aggressiveness, and enthusiasm (Barrick & Mount, 1991), a strong desire for social recognition, admiration, unbounded, talkative, active, cheerful, and eagerness. Extroverts are emotionally stable and have gratifying and exciting personalities (Costa & McCrae, 1997). Personality Neuroticism is characterized by emotional insecurity (McCrae & John, 1992), irritability, anger, anxiety, frustration, meanness, intolerance, anxiety, self-consciousness, ambiguity, uncertainty, insecurity, fear, and unhappiness (Barrick & Mount, 1991; Diefendorff, Croyle, & Gosserand (2005). & Mount, 1991), prudent, inclusive, responsible (Moon, 2001), organized and solid, rational, rational, reliable and consistent and adventurous (Goldberg, 1990). The Agreeableness approach has politeness, flexibility, simplicity (Barrick & Mount, 1991), cooperation, helpfulness, compassion, caring, empathy, and non-judgment (McCrae and Costa, 1997). The Openness personality possesses traits such as creativity and innovation (Barrick & Mount, 1991), kindness, gentleness, awareness and understanding, an optimistic attitude, and a better ability to adjust to Other aspects of the Big Five personality (Costa & McCrae) e, 1997).

The Big Five model is applied to many different research fields such as predicting general prejudice (Ekehammar&Akrami, 2003; Sibley & Duckitt, 2008), racism (Jackson & Poulsen, 2005; Silvestri & Richardson, 2001), attitudes toward immigrants (Akrami, Ekehammar& Bergh 2011), political beliefs (Carney et al., 2008; Jost, Nosek, & Gosling, 2008; Jost, 2006), political behavior (Hibbing, Ritchie, & Anderson 2011; Gerber et al., 2011; Mattila et al., 2011; Mondak& Halperin, 2008; Mondak, 2010; Mondak& Halperin, 2008; Tung, 2021).

The five personalities of individuals manifest in different cultures. Therefore, individuals must be placed in specific situations to understand their personality (Allik& McCrae, 2004; Heine & Buchtel, 2009; Schmitt et al., 2007; Denissen&Penke, 2008, Mischel&Shoda, 1995; Canli, 2008). The five personality traits make for a compelling explanation of social attitudes and behavior because it is internal to the individual and, to a large extent, pre-empts adult social experiences: it is systematic large genetic numbers (Medland&HHri, 2009; Yamagata et al., 2006). Personality traits are related to attitudes and economic behavior, social behavior, and political behavior (Gerber et al., 2010, Gerber et al., 2011, Mondak, 2010; Mondak& Halperin, 2008; Mondak et al., 2010).

The five personality model has been studied in many different fields. E.g., Contrasting research with the suitability and decision of individual career choice (Barrick & Mount, 1991, Barrick, Mount, & Judge 2001). In the civil field, individuals with a high self-control index often adhere to the principles and standards of the organization, work hard and persevere in work plans. On the other hand, individuals with low self-esteem often show disorganized, irresponsible, careless, negligent, and impulsive behavior at work (Jin, Watkins, & Yuen 2009).

Relationship between Personality and Public Service Motivation

Many motivations have significant relationships with personality types and personality (Eysenck, 1997). Conscience and openness to experience are positively associated with intrinsic motivation, while superiority is directly related to extrinsic motivation (Komarraju, Karau & Schmeck, 2009). Participation in work was also found to be directly related to personality (Bozionelos, 2003); in addition, Big Five characteristics positively impact work performance (Awadh, A.M. & Wan Ismail, W.K, 2012). Furthermore, Gerber, Huber, Doherty, Dowling & Ha (2010) have found that Big Five Personality traits influence political approach, but context-specific. Public service motivation also has a significant direct relationship with the five major characteristics that affect public service motivation to a large extent (Jang, 2012; Tung 2022).

Arjen van Witteloostuijn, Marc Esteve, & George Boyne (2017) study the case of university students and show that core personality traits strongly influence public service motivation. Compassion and self-sacrifice have been positively influenced by personality traits (Honesty-Humility), (Emotionality, and Agreeableness) and negatively by (Conscientiousness). Public service motivation does not affect attractiveness to policymaking (Attraction to Public Participation), and Commitment to the Public Interest is positively associated with openness to experience. Openness to Experience.

Jang & Chyi-Lu's (2012) case study of civil servants in Taiwan showed a relationship between Big Five personality traits and public service motivation (public service motivation). The rule shows that Extraversion is positively related to attraction to policymaking but negatively related to Self-sacrifice. Agreeableness has a positive

relationship with compassion. Conscientiousness has a positive relationship with Commitment to the public interest, Compassion, and Self-sacrifice. Neuroticism is negatively related to Commitment to the public interest and compassion but positively related to Commitment to policymaking. Openness to experience is positively related to variables of public service motivation. In summary, personality traits can act as solid predictors of public service motivation Jang, Chyi-Lu. (2012).

Perry's (2000) process theory of Public Service Motivation also emphasizes that personal characteristics are an integral part of public service employee motivation and directly influence employee public service. All areas of process theory essentially define a person's character and are antecedents of public service motivation, thus affecting workplace performance directly.

III. Research Hypothesis

Hypothesis 1: Openness personality is positively and significantly related to public service motivation.

Hypothesis 2: Conscientiousness personality is positively and significantly related to public service motivation.

Hypothesis 3: Personality Neuroticism positively and significantly associated with public service motivation.

Hypothesis 4: Extraversion personality positively and significantly correlates with public service motivation.

Hypothesis 5: Personality Agreeableness positively and significantly correlates with public service motivation.

IV. Materials and Methods

Variables and Measures

A self-assessment questionnaire was developed after consulting with experts in the field of education. After completing the questionnaire, we conducted a survey and analyzed the trial with adjustment. The questionnaire consists of three parts: a survey of population information, including gender, age, and education. The questionnaire on personality traits (Big Five) was used a questionnaire of (John & Srivastava, 1999) including five dimensions including Extraversion (6 items), Agreeableness (7 items), Conscientiousness (9 items), Neuroticism (8 items), and Openness (10 items). The questionnaire about Public Service Motivation has used a questionnaire of (Kim et al., 2012) consisting of 5 dimensions including Attraction to Public Participation (7 items), Public Interests (4 items), Public Values (9 items), Compassion (6 items), items) and Self-Sacrifice (7 items). Each item is measured on a 5-point Likert scale (Disagree strongly = 1; Disagree a little = 2; Neither agree nor disagree =3; Agree a little = 4; Agree Strongly =5). Questions marked "R" (denotes reverse-scored items) are scored in reverse. The questionnaire was translated into Vietnamese based on specialists in linguistics, psychology, and administrative studies. The male Vietnamese questionnaire was adjusted three times the pilot survey.

Data Collection

The design used for the study is a cross-sectional survey design that aims to measure and verify the independent variables (Big Five) related to the dependent variables (Public Service Motivation). The study was conducted at local administrative offices in the North of Vietnam and Hanoi city in August 2019. Intentional sampling method. Collect data through the survey with 650 votes. Respondents mark items with a pencil on the appropriate options in the questionnaire. Collected data were analyzed using SPSS 2.0 and SPSS AMOS 2.0 software. One hundred fifty faulty questionnaires should be discarded. Only 500 questionnaires (n=500) remained for analysis. Demographic information, including gender and previous living abroad status, is described in Table 1.

Table 1: Frequency Analysis

Items		Gender				Total	Percentage
		Male (n)	%	Female(n)	%		
Age	from 24-34 years old	100	20	63	12.6	163	32.6
	from 35 to 44 years old	51	10.2	38	7.6	89	17.8
	from 45 to 55 years old	48	9.6	33	6.6	81	16.2
	Over 55 years old	89	17.8	78	15.6	167	33.4
Education	High school or less	51	10.2	42	8.4	93	18.6
	Bachelor or technical degree	103	20.6	62	12.4	165	33
	Honours or higher	134	26.8	108	21.6	242	48.4
Position	Staff	184	36.8	130	26	314	62.8
	Manager	104	20.8	82	16.4	186	37.2

V. Results

Reliability Analys

Table 2 shows that the Cronbach's Alpha coefficients of all items are more significant than 0.7, thus qualifying for the analysis of the following steps (Hair, Black, Babin, & Anderson, 2010). Good Composite Reliability for a structure is defined with five to eight items to meet the minimum threshold of 0.80 (Raykov, 1997; Brunner & Süß, 2005). Table 2 shows that (item Agreeableness has aggregate confidence = 0.799, approximately = 0.8), the

remaining items have aggregate confidence greater than 0.8. Thus, the items in table 2 all meet the requirements to analyze the next steps. The threshold for accepting variance extracted (Average Variance Extracted) of items greater than 0.50 is satisfactory (Hair, Black, Babin, & Anderson, 2010; Cortina, 1993). Table 2 shows that the extracted variance of the items Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness has composite confidence < 0.5 but combined reliability of these items > 0.6 is still acceptable for subsequent steps analysis followed (Fornell&Larcker, 1981). The remaining items with extracted variance > 0.6 satisfy the requirement for further analysis.

Table 2: Reliability analys

Factors	Cronbach'salpha	Average Variance Extracted	Composite Reliability
Extraversion	0.805	0.409	0.806
Agreeableness	0.799	0.400	0.799
Conscientiousnes	0.867	0.421	0.867
Neuroticism	0.819	0.394	0.820
Openness	0.861	0.408	0.861
APP	0.937	0.681	0.937
CIP	0.896	0.684	0.897
CPV	0.956	0.710	0.957
COM	0.933	0.702	0.934
SS	0.943	0.703	0.943

Factor Analysis

The condition for exploratory factor analysis is to satisfy the following requirements: Factor loading > 0.5. $0.5 \leq KMO \leq 1$: KMO coefficient (Kaiser-Meyer-Olkin) is the index used to consider the appropriateness of factor analysis (Cerny & Kaiser, 1977; Kaiser, 1974). Table 3 shows that the Bartlett test has statistical significance (Sig.=0.00), coefficient KMO=0.959. The large KMO coefficient means that factor analysis is appropriate. Bartlett test has statistical significance (Sig. < 0.05). If this test is statistically significant (Sig. < 0.05), the observed variables are correlated in the population. Thus, the variables are valid for factor analysis (Snedecor, George, Cochran & William, 1989). Table 4 shows that the Extraction Sums of Squared Loadings of 5 factors = 62.848 % are valid (Hair, 2014). Initial Eigenvalues of 5 factors = 1,902 (greater than 1.40) are valid (Smith & Miao, 1994).

Table 3: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.959
Bartlett's Test of Sphericity	Approx. Chi-Square	21350.905
	df	2415
	Sig.	.000

Factor loading (factor loading factor or factor weight) is the criterion to ensure the practical significance of factor analysis: Factor loading > 0.3 is considered to be the minimum level; Factor loading > 0.4 is considered necessary; Factor loading > 0.5 is considered to be of practical significance. Table 5 shows that the factor loading of all variables is more significant than 0.5, which means that the factor analysis is valid (Hair, Anderson, Tatham, & Black, 1998).

Table 4: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	21.080	30.115	30.115	21.080	30.115	30.115	6.671	9.530	9.530
2	3.624	5.177	35.292	3.624	5.177	35.292	5.119	7.313	16.843
3	2.907	4.153	39.445	2.907	4.153	39.445	4.934	7.049	23.891
4	2.835	4.050	43.494	2.835	4.050	43.494	4.705	6.721	30.613

5	2.701	3.859	47.353	2.701	3.859	47.353	4.704	6.721	37.333
6	2.445	3.493	50.846	2.445	3.493	50.846	4.419	6.312	43.646
7	2.026	2.894	53.740	2.026	2.894	53.740	3.536	5.052	48.698
8	2.000	2.857	56.597	2.000	2.857	56.597	3.226	4.608	53.306
9	1.855	2.650	59.247	1.855	2.650	59.247	3.123	4.461	57.767
10	1.737	2.482	61.729	1.737	2.482	61.729	2.774	3.962	61.729

Extraction Method: Principal Component Analysis.

Table 5: Rotated Component Matrix

	Component									
	1	2	3	4	5	6	7	8	9	10
CPV7	.812									
CPV4	.789									
CPV2	.783									
CPV6	.778									
CPV1	.776									
CPV5	.769									
CPV8	.769									
CPV9	.767									
CPV3	.764									
SS3		.787								
SS6		.778								
SS2		.777								
SS1		.776								
SS7		.770								
SS5		.754								
SS4		.746								
APP1			.782							
APP7			.776							
APP6			.776							
APP3			.746							
APP4			.746							
APP2			.739							
APP5			.713							
Openness2				.659						
Openness5				.657						
Openness4				.632						
Openness3				.632						
Openness7				.629						
Openness8				.626						
Openness1				.621						
Openness9				.598						
Openness10				.553						
Conscientiousnes3					.661					
Conscientiousnes9					.642					
Conscientiousnes2					.639					
Conscientiousnes7					.638					
Conscientiousnes8					.630					

Conscientiousnes4					.623					
Conscientiousnes6					.623					
Conscientiousnes1					.621					
Conscientiousnes5					.613					
COM4						.803				
COM6						.800				
COM1						.786				
COM2						.779				
COM5						.762				
COM3						.750				
Neuroticism8							.687			
Neuroticism7							.673			
Neuroticism6							.635			
Neuroticism3							.611			
Neuroticism1							.588			
Neuroticism2							.575			
Neuroticism5							.573			
Extraversion6								.677		
Extraversion3								.670		
Extraversion1								.669		
Extraversion4								.626		
Extraversion2								.599		
Extraversion5								.595		
Agreeablenes2									.678	
Agreeablenes1									.653	
Agreeablenes7									.650	
Agreeablenes3									.628	
Agreeablenes5									.617	
Agreeablenes4									.606	
CPI4										.783
CPI2										.778
CPI3										.721
CPI1										.717
Extraction Method: Principal Component Analysis.										
Rotation Method: Varimax with Kaiser Normalization.										
a. Rotation converged in 7 iterations.										

Structural Equation Modeling (SEM)

The SEM model is an extension of the general linear model (GLM) that allows the researcher to test a set of regression equations simultaneously. The SEM model combines all the techniques such as multivariate regression, factor analysis, and correlation analysis (between elements in the network diagram) to check the complex relationship fit in the model. Unlike other statistical techniques that only allow estimation of the partial relationship of each pair of factors (elements) in the classical model (measurement model). SEM allows the simultaneous estimation of the elements in the model overall, estimate the causal relationship between the latent concepts (Latent Constructs) through indicators that combine both measurement and structure of the theoretical model, measure the stable relationships (recursive) and non-recursive, measuring direct and indirect effects, including measurement error and residual correlation. With the confirmatory factor analysis (CFA) technique, the SEM model allows the flexibility to find the most suitable model in the proposed models (Crowley & Fan, 1997; Kline, 2011; Nachtigall, Kroehne, Funke, & Co. Steyer, 2003; Raykov&Marcoulides, 2006; Ullman, 2006; Widaman& Thompson, 2003).

To evaluate the fit of the SEM model, the Chi-Square (χ^2) testing, Root-Mean-Square Error of Approximation (RMSEA) (Browne & Cudeck,1993) procedure together with the confidence interval, standardized-root-mean, is required square residual (SRMR), Tucker-Lewis Index (TLI) (Tucker & Lewis, 1973), and Comparative Fit Index

(CFI) (Bentler, 1990) were reported. It is suggested that a good fitting model should have values of CFI and TLI ≥ 0.90 , RMSEA, and SRMR ≤ 0.08 (Browne & Cudeck, 1993; Byrne, 1989; Hu & Bentler, 1999; Kline, 2011).

The results of SEM analysis show that openness personality has a positive and significant relationship with Attraction to Public Participation (regression Weights = 0.179 and reliability p-value = 0.056), with Public Interests (coefficient of Regression Weights = 0.229 and reliability p-value = 0.000), with Public Values (coefficient of Regression Weights = 0.174 and reliability p-value = 0.012), with Compassion (coefficient of Regression Weights = 0.275 and reliability p-value p-value = 0.012) -value = 0.000), and with Self-Sacrifice (Regression Weights = 0.267 and confidence p-value = 0.000). Thus, the hypothesis (Hypothesis 1: Openness personality positively and significantly related to public service motivation) is accepted (Table 6).

Conscientiousness personality has no positive and significant association with Attraction to Public Participation (Regression Weights = 0.125 and reliability p-value = 0.069), no positive and significant association with Public Participation Interests (Regression Weights = 0.16 and confidence p-value = 0.013), positively and significantly associated with Public Values (Regression Weights = 0.241 and confidence p-value = 0.000), not related Positive and significant with Compassion (Regression Weights = 0.068 and reliability p-value = 0.348), not positively and significantly associated with Self-Sacrifice (Regression Weights = 0.079 and reliability p-value = 0.277). Thus, the hypothesis (Hypothesis 2: Conscientiousness personality positively and significantly related to public service motivation) is not accepted (Table 6).

Neuroticism personality has a positive and significant relationship with Attraction to Public Participation (Regression Weights = 0.314 and reliability p-value = 0.000), with Public Interests (Regression Weights = 0.356 and reliability). p-value = 0.000), with Public Values (Regression Weights = 0.207 and reliability p-value = 0.005), with Compassion (Regression Weights = 0.175 and reliability p-value = 0.031), and with Self-Sacrifice (regression Weights = 0.25 and p-value = 0.002). Thus, the hypothesis (Hypothesis 3: Personality Neuroticism is positively related and meaningful to public service motivation) is accepted (Table 6).

Extraversion personality has a positive and significant relationship with Attraction to Public Participation (Regression Weights = 0.394 and confidence p-value = 0.000), with Public Interests (Regression Weights = 0.206 and confidence). p-value = 0.003), with Public Values (Regression Weights = 0.26 and reliability p-value = 0.000), with Compassion (Regression Weights = 0.382 and reliability p-value = 0.031), and with Self-Sacrifice (regression Weights = 0.365 and reliability p-value = 0.002). Thus, the hypothesis (Hypothesis 4: Extraversion personality positively and significantly related to public service motivation) is accepted (Table 6).

Agreeableness personality has no positive and significant relationship with Attraction to Public Participation (Regression Weights = 0.116 and confidence p-value = 0.151), with Public Interests (Regression Weights = 0.095 and confidence level = 0.151) reliability p-value = 0.205), with Public Values (regression Weights = 0.231 and reliability p-value = 0.003), with Compassion (regression Weights = 0.188 and reliability p-value = 0.028), and with Self-Sacrifice (regression Weights = 0.172 and confidence p-value = 0.045). Thus, the hypothesis (Hypothesis 5: Personality Agreeableness positively and significantly related to public service motivation) is not accepted (Table 6).

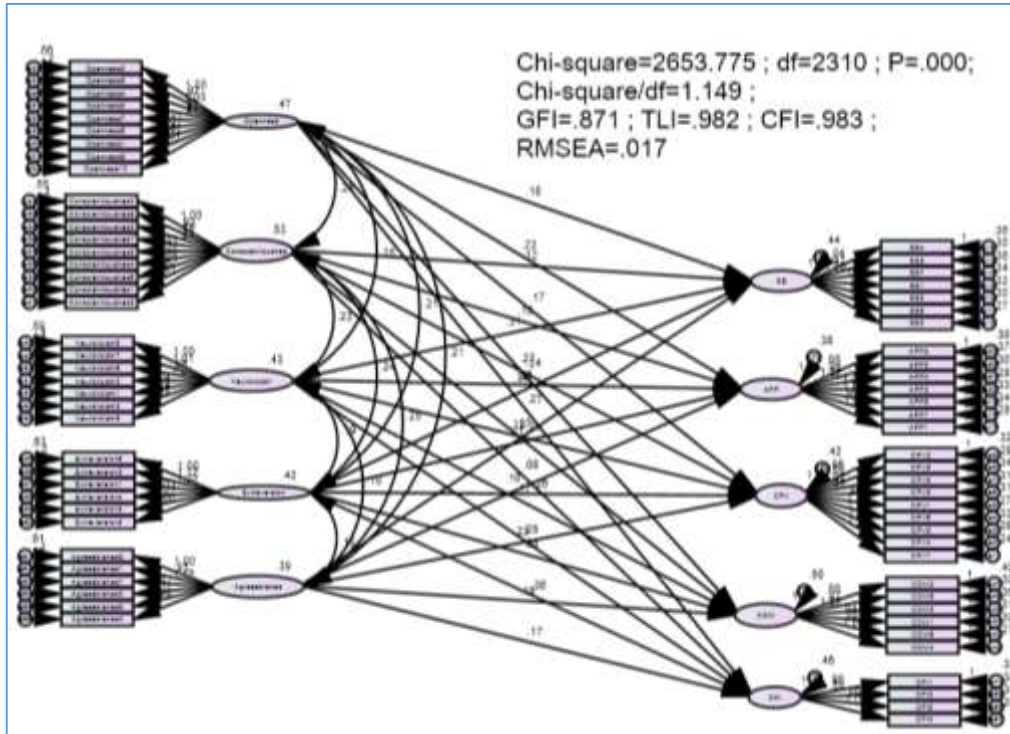


Figure 1: SEM Analysis Results

Table 6: Regression Weights

			Estimate	S.E.	C.R.	P	
SS	<---	Openness	.179	.072	2.469	.014	accept
APP	<---	Openness	.229	.068	3.358	***	accept
CPV	<---	Openness	.174	.070	2.500	.012	accept
COM	<---	Openness	.275	.077	3.548	***	accept
CPI	<---	Openness	.267	.077	3.460	***	accept
SS	<---	Conscientiousnes	.125	.069	1.820	.069	Not accept
APP	<---	Conscientiousnes	.160	.064	2.497	.013	accept
CPV	<---	Conscientiousnes	.241	.067	3.621	***	accept
COM	<---	Conscientiousnes	.068	.072	.939	.348	Not accept
CPI	<---	Conscientiousnes	.079	.072	1.088	.277	Not accept
SS	<---	Neuroticism	.314	.078	4.014	***	accept
APP	<---	Neuroticism	.356	.074	4.805	***	accept
CPV	<---	Neuroticism	.207	.074	2.801	.005	accept
COM	<---	Neuroticism	.175	.081	2.160	.031	accept
CPI	<---	Neuroticism	.250	.082	3.071	.002	accept
SS	<---	Extraversion	.394	.078	5.067	***	accept
APP	<---	Extraversion	.206	.070	2.952	.003	accept
CPV	<---	Extraversion	.260	.072	3.585	***	accept
COM	<---	Extraversion	.382	.082	4.682	***	accept
CPI	<---	Extraversion	.365	.081	4.505	***	accept
SS	<---	Agreeablenes	.116	.081	1.435	.151	Not accept
APP	<---	Agreeablenes	.095	.075	1.268	.205	Not accept
CPV	<---	Agreeablenes	.231	.079	2.930	.003	accept

COM	<---	Agreeableness	.188	.086	2.190	.028	accept
CPI	<---	Agreeableness	.172	.086	2.005	.045	accept

The model test coefficients do not satisfy the standard requirements of the SEM model (Figure 2): Chi-square = 2653.775; Df = 2310; P-value = 0.000 (P-value > 0.05) ; Chi-square/df = 1.149; GIF = 0.871 (GIF>0.9); TLF = 0.928; RMSEA = 0.014 (Browne & Cudeck, 1993; Tucker & Lewis, 1973; Bentler, 1990; Browne & Cudeck, 1993; Byrne, 1989; Hu & Bentler, 1999; Kline, 2011).

VI. Discussion

Key Findings

Firstly, this study shows that open personality has a positive and significant association with Attraction to Public Participation, Public Interests, Public Values, Compassion, Self-Sacrifice. This result is similar to the finding of Openness to Experience personality positively affecting Public Values (Arjen van Witteloostuijn, Marc Esteve, & George Boyne, 2017). Similarly, the author (Jang & Chyi-Lu, 2012) found that Openness to experience personality is positively related to the variables of public service motivation. Meanwhile, this researcher found that open personality does not affect Attraction to Public Participation and Public Interests (Arjen van Witteloostuijn, Marc Esteve, & George Boyne, 2017).

Second, this study found that Conscientiousness personality has no positive and meaningful association with Attraction to Public Participation, Public Interests, and Self-Sacrifice, positive and meaningful association with Compassion and Public Values. This finding is similar to Jang, Chyi-Lu (2012) finding that personality Conscientiousness is positively related to commitment to the public interest, compassion, and self-sacrifice. Nevertheless, this finding contrasts with the finding of (Arjen van Witteloostuijn, Marc Esteve, & George Boyne, 2017), that personality Conscientiousness negatively affects motivation to serve the public. In comparison, Conscientiousness personality did not affect Attraction to Public Participation and Public Interests (Arjen van Witteloostuijn, Marc Esteve, & George Boyne, 2017).

Third, research shows that personality Neuroticism has a positive and meaningful association with Attraction to Public Participation, Public Interests, Public Values, Compassion, Self-Sacrifice. This finding contradicts the findings of (Arjen van Witteloostuijn, Marc Esteve, & George Boyne, 2017) that Neuroticism personality does not affect Attraction to Public Participation and Public Interests. Alternatively, the finding of (Jang & Chyi-Lu, 2012) is that personality Neuroticism is negatively related to commitment to the public interest and compassion but positively related to attraction to policymaking.

Fourth, this study shows that Extraversion personality has a positive and significant association with Attraction to Public Participation, Public Interests, Public Values, Compassion, Self-Sacrifice. This finding contradicts (Arjen van Witteloostuijn, Marc Esteve, & George Boyne, 2017) that Extraversion personality does not affect Attraction to Public Participation and Public Interests. This finding is similar to the finding of (Jang & Chyi-Lu, 2012) that Extraversion personality is positively related to attraction to policymaking. Extraversion personality is negatively related to self-sacrifice.

Fifth, this study shows that Agreeableness personality has no positive and significant association with Self-Sacrifice, Attraction to Public Participation, but the positive and meaningful influence on Public Interests, Compassion, and Public Values. This finding is similar to the finding of (Jang & Chyi-Lu, 2012) that personality Agreeableness is positively related to compassion. Similar to the finding of (Arjen van Witteloostuijn, Marc Esteve, & George Boyne, 2017), Agreeableness personality has no positive and significant association with Attraction to Public Participation.

The different findings of this study compared with other previous studies may be due to differences in research contexts, characteristics of respondents, and different cultures. It can be said that the relationship between personality traits and public service motivation is difficult to predict. However, it has been found that personality has a direct and close relationship with positive or negative public service motivation with different dimensions depending on the research context and the cultural characteristics of the survey subjects.

Implications

Aspects of public service motivation are strongly related to personality trait dimensions. As a result, human resource policy-making and recruitment agencies increase awareness of different personality traits and their links to different aspects of public service motivation. Such an understanding can be beneficial in making hiring decisions in public organizations. For a human resources manager, identifying potential candidates (or current employees) who demonstrate qualities like aspects of public service motivation can be helpful in the hiring process and the hiring process. their advancement in the future.

Such knowledge can be helpful to both public and private sector organizations to make training and development decisions for public service employees. Specific training programs may be based on personality traits and their

relationship to aspects of the employee's public service motivation. This knowledge is also helpful to individuals in their career orientation whether or not to choose a career in public service based on personality characteristics and public service motivation to ensure that it is suitable for them to merge with future work.

Limitations

Although this study has contributed to knowledge about public service dynamics and its relationship with aspects of the Big five as with other empirical studies, there are limitations to this study that should be considered when discussing the results. First, our survey method reflects the respondents' subjective perception of the questions being investigated. Subjective data has some inherent disadvantages that are hard to avoid in surveys (Pakpour, Gellert, Asefzadeh, Updegraff, Molloy & Sniehotta, 2016). Our data is collected over a single period of time. Cross-sectional data periodically assess changes in students' intentions and related behaviors regarding their college admissions, which may affect their applicability (Xin Z, Liang M, Zhanyou W & Hua X, 2019).

The population size for this study was demarcated (only employees in local government administrative agencies were surveyed), so the results may not be generalizable to both the public and private sectors, central government, and demographics. In addition, the questionnaire used to assess the personality and motivational aspects of public service translated from English into Vietnamese is influenced by the subjective factors of the translator, which more or less affects the truth of the research results.

VII. Conclusions

Personality traits can act as solid predictors of public service motivation (Jang & Chyi-Lu, 2012). Public service motivation also has a significant direct relationship with the Big Five to a large extent (Jang, 2012). Public service motivation has a significant and robust relationship with personality types in both positive and negative directions, which is not affected even, depending on the particular context. Eysenck, 1997). Personality traits are an integral part of public service motivation, directly influencing public service motivation differently. Defining personality is an antecedent of public service motivation, thus affecting workplace performance directly.

Employees in public service, like employees in other fields, are attracted to pay and other incentives. This study only focuses on exploring the relationship between personality traits concerning aspects of public service motivation. Some other factors have been overlooked, such as salary, material incentives, job characteristics, promotion opportunities, organizational culture; future studies should also assess the impact of these factors. Additional factors were not included in our analysis. Our study was conducted in a Vietnamese cultural context. Studying in other cultural contexts and drawing generalized conclusions by research develops a different research paradigm (Sun, Fang, Lim & Straub, 2012).

References

- [1] Akrami, N., B. Ekehammar, and R. Bergh. (2011). Generalized Prejudice: Common and Specific Components. *Psychological Science*, 22 (1), 57–59. doi:10.1177/0956797610390384.
- [2] Alan S. Gerber, Gregory A. Huber, David Doherty, Conor M. Dowling, and Shang E. Ha. (2010). Personality and Political Attitudes: Relationships across Issue Domains and Political Contexts. *American Political Science Review*, 104(1), 111-133.
- [3] Allik, J., and R.R. McCrae. (2004). Toward a Geography of Personality Traits: Patterns of Profiles across 36 Cultures. *Journal of Cross-Cultural Psychology*, 35 (1), 13–28. doi:10.1177/0022022103260382.
- [4] Alonso, P., & Lewis, G.B. (2001). Public Service Motivation and Job Performance: Evidence from the Federal Sector. *The American Review of Public Administration*, 31(4), 363–380. <https://doi.org/10.1177/02750740122064992>
- [5] Andersen, L.B., Heinesen, E., & Holm Pedersen, L. (2014). How Does Public Service Motivation Among Teachers Affect Student Performance in Schools? *Journal of Public Administration Research and Theory*, 24(3), 651-671. <https://doi.org/10.1093/jopart/mut082>.
- [6] Arjen Van Witteloostuijn, Marc Esteve, George Boyne. (2017). Public Sector Motivation ad fonts: Personality Traits as Antecedents of the Motivation to Serve the Public Interest. *Journal of Public Administration Research and Theory*, 27(1), 20–35. <https://doi.org/10.1093/jopart/muw027>
- [7] Awadh, A.M., & Wan Ismail, W. (2012). The Impact of Personality Traits and Employee Work-Related Attitudes on Employee Performance with the Moderating Effect of Organizational Culture: The Case of Saudi Arabia. *Asian Journal of Business and Management Sciences*, 1(10), 108-127.
- [8] Awadh, A.M., & Wan Ismail, W. (2012). The Impact of Personality Traits and Employee Work-Related Attitudes on Employee Performance with the Moderating Effect of Organizational Culture: The Case of Saudi Arabia. *Asian Journal of Business and Management Sciences*, 1(10), 108-127.

- [9] Barrick, M.R. and Mount, M.K. (1991). The Big Five Personality Dimensions and Job Performance: A Metaanalysis. *Personnel Psychology*, 44(1), 1-26.
- [10] Barrick, M.R., & Mount, M.K. (1993). Autonomy as a moderator of the relationships between the Big Five personality dimensions and job performance. *Journal of Applied Psychology*, 78(1), 111–118. <https://doi.org/10.1037/0021-9010.78.1.111>.
- [11] Barrick, M.R., Mount, M.K., & Judge, T.A. (2001). Personality and performance at the beginning of the new millennium: What do we know and where do we go next? *International Journal of Selection and Assessment*, 9(1-2), 9–30. <https://doi.org/10.1111/1468-2389.00160>
- [12] Barrick, M.R. and Mount, M.K. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44(1): 1-26. doi:10.1111/j.1744-6570.1991.tb00688.x
- [13] Bentler, P.M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238–246. <https://doi.org/10.1037/0033-295X.86.5.452>
- [14] Bozeman, B., & Su, X. (2015). Public service motivation concepts and theory: A critique. *Public Administration Review*, 75(5), 700-710.
- [15] Bozionelos, N. (2004). The big five of personality and work involvement. *Journal of Managerial Psychology*, 19(1), 69-81.
- [16] Brewer, G.A., & Selden, S.C. (1998). Whistle blowers in the federal civil service: New evidence of the public service ethic. *Journal of public administration research and theory*, 8(3), 413-440.
- [17] Browne, M.W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.). *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.
- [18] Brunner, M., & Süß, H.M. (2005). Analyzing the Reliability of Multidimensional Measures: An Example from Intelligence Research. *Educational and Psychological Measurement*, 65(2), 227–240. <https://doi.org/10.1177/0013164404268669>
- [19] Frey, B., & Oberholzer-Gee, F. (1997). The Cost of Price Incentives: An Empirical Analysis of Motivation Crowding- Out. *The American Economic Review*, 87(4), 746-755. Retrieved May 2, 2020, from www.jstor.org/stable/2951373
- [20] Buelens, M., & Broeck, H.V. (2007). An analysis of differences in work motivation between public and private sector organizations. *Public Administration Review*, 65-74.
- [21] Byrne, B.M. (1989). *A primer of LISREL: Basic applications and programming for confirmatory factor analytic models*. New York: Springer. <https://doi.org/10.1007/978-1-4613-8885-2>
- [22] Camilleri, E., & Van Der Heijden, B.I. (2007). Organizational commitment, public service motivation, and performance within the public sector. *Public Performance & Management Review*, 31(2), 241-274.
- [23] Canli, T. (2008). Toward a “Molecular Psychology” of Personality. In *Handbook of Personality: Theory and Research*, 3rd ed., edited by O.P. John, R.W. Robins, and L.A. Pervin, 311–327. New York: Guilford.
- [24] Carney, Dana R., John T. Jost, Samuel D. Gosling, and Jeff Potter. (2008). The Secret Lives of Liberals and Conservatives: Personality Profiles, Interaction Styles, and the Things They Leave Behind. *Political Psychology* 29(6), 807–840. doi:10.1111/j.1467-9221.2008.00668.x
- [25] Cattell, R.B., Eber, H.W., & Tatsuoaka, M.M. (1988). *Handbook for the sixteen personality factor questionnaire (16 PF)*. Champaign, Illinois: Institute for Personality and Ability Testing.
- [26] Cerny, C.A., & Kaiser, H.F. (1977). A study of a measure of sampling adequacy for factor-analytic correlation matrices. *Multivariate Behavioral Research*, 12(1), 43-47.
- [27] Choi, Young Joon. (2001). *A Study of Public Service Motivation: The Korean Experience*. Ph.D. Dissertation, University of Idaho.
- [28] ClaesFornell and David F. Larcker. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39-50.
- [29] Cortina, J.M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, 78(1), 98–104. <https://doi.org/10.1037/0021-9010.78.1.98>.
- [30] Costa Jr, P.T., & McCrae, R.R. (1995). Domains and facets: Hierarchical personality assessment using the Revised NEO Personality Inventory. *Journal of personality assessment*, 64(1), 21-50.
- [31] Costa, P.T., & McCrae, R.R. (1992). Normal personality assessment in clinical practice: The NEO Personality Inventory. *Psychological Assessment*, 4(1), 5–13. <https://doi.org/10.1037/1040-3590.4.1.5>
- [32] Crewson, Philip. (1997). Public Service Motivation: Building Empirical Evidence of Incidence and Effect. *Journal of Public Administration Research and Theory*, 7, 10.1093/oxfordjournals.jpart.a024363.

- [33] Crowley, S.L., & Fan, X. (1997). Structural equation modeling: Basic concepts and applications in personality assessment research. *Journal of Personality Assessment*, 68(3), 508–531.
https://doi.org/10.1207/s15327752jpa6803_4
- [34] Denissen, J.J.A., and L. Penke. (2008). Motivational Individual Reaction Norms Underlying the Five-factor Model of Personality: First Steps towards a Theory-Based Conceptual Frame-work. *Journal of Research in Personality*, 42(5), 1285–1302. doi:10.1016/j.jrp.2008.04.002.
- [35] Diefendorff, James & Croyle, Meredith & Gosserand, Robin. (2005). The dimensionality and antecedents of emotional labor strategies. *Journal of Vocational Behavior*, 66, 339-357.
10.1016/j.jvb.2004.02.001.
- [36] Ekehammar, B., and N. Akrami. (2003). The Relation between Personality and Prejudice: A Variable and a Person Centred Approach. *European Journal of Personality*, 17(6), 449–464.
doi:10.1002/per.494.
- [37] Eysenck, H.J. (1997). Personality and experimental psychology: The unification of psychology and the possibility of a paradigm. *Journal of Personality and Social Psychology*, 73(6), 1224–1237.
<https://doi.org/10.1037/0022-3514.73.6.1224>
- [38] Fiske, D.W. (1949). Consistency of the factorial structures of personality ratings from different sources. *The Journal of Abnormal and Social Psychology*, 44(3), 329–344.
<https://doi.org/10.1037/h0057198>.
- [39] Gary L. Wamsley, James F. Wolf. (1996). *Refounding Democratic Public Administration*. SAGE
- [40] Gerber, A.S., G.A. Huber, D. Doherty, & C.M. Dowling. (2011). The Big Five Personality Traits in the Political Arena. *Annual Review of Political Science* 14(1), 265–287.
doi:10.1146/annurev-polisci-051010-111659.
- [41] Gerber, A.S., G.A. Huber, D. Doherty, C.M. Dowling, C. Raso, and S.E. Ha. (2011). Personality Traits and Participation in Political Processes. *The Journal of Politics*, 73(3), 692–706.
- [42] doi:10.1017/S0022381611000399.
- [43] Goldberg LR. (1990). An alternative "description of personality": the big-five factor structure. *J Pers Soc Psychol.*, 59(6), 1216-29.
- [44] Goldberg, L. (1981). Language and Individual Differences: The Search for Universals in Personality Lexicons. In L. Wheeler (Ed.), *Review of Personality and Social Psychology* (pp. 141-165). Beverly Hills, CA: Sage Publication.
- [45] Goldberg, L.R. (1993). The structure of phenotypic personality traits. *American Psychologist*, 48(1), 26–34. <https://doi.org/10.1037/0003-066X.48.1.26>.
- [46] Hair, J., Anderson, R., Tatham, R. & Black, W. (1998). *Multivariate data analysis* (5th Edition). Prentice Hall, New Jersey.
- [47] Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate data analysis* (7th ed.): Prentice-Hall, Inc. Upper Saddle River, NJ, USA.
- [48] Heine, S.J., & E.E. Buchtel. (2009). Personality: The Universal and the Culturally Specific. *Annual Review of Psychology*, 60 (1), 369–394. doi:10.1146/annurev.psych.60.110707.163655.
- [49] Ho Ba Tham. (2004). *Motivation and motivation for social development*. Hanoi: National political publishing house.
- [50] Hoang Thi Loc & Nguyen Quoc Nghi. (2014). Develop a theoretical framework for working dynamics in the public sector in Vietnam. *Science Journal of Can Tho University*, 32, 1-9.
- [51] Homberg, F., & McCarthy, D. (2015). A meta-analysis of the relationship between public service motivation and job satisfaction. *Public Administration Review*, 75(5), 711-722.
- [52] Homberg, F., McCarthy, D. & Tabvuma, V. (2015), A Meta-Analysis of the Relationship between Public Service Motivation and Job Satisfaction. *Public Admin Rev.*, 75, 711-722.
doi:10.1111/puar.12423
- [53] Houston, D.J. (2000). Public-Service Motivation: A multivariate test. *Journal of Public Administration Research and Theory*, 10(4), 713-727.
- [54] Hu, L.T., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling. A Multidisciplinary Journal*, 6(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- [55] James L. Perry. (200). Bringing Society In: Toward a Theory of Public-Service Motivation, *Journal of Public Administration Research and Theory*, 10 (2), 471-488.
<https://doi.org/10.1093/oxfordjournals.jp.art.a024277>

- [56] Jang, C.L. (2012). The effect of personality traits on public service motivation: evidence from Taiwan. *Social Behavior and Personality. An international journal*, 40(5), 725-733.
- [57] Jang, Chyi-Lu. (2012). The Effect of Personality Traits on Public Service Motivation: Evidence from Taiwan. *Social Behavior and Personality. An international journal*, 40, 10.2224/sbp.2012.40.5.725.
- [58] Jin, L., Watkins, D., & Yuen, M. (2009). Personality, career decision self-efficacy and commitment to the career choices among Chinese graduate students. *Journal of Vocational Behavior*, 74(1), 47-52.
- [59] John, O.P. & Srivastava, S. (1999). The Big Five Trait Taxonomy: History, Measurement, and Theoretical Perspectives. In: Pervin, L.A. and John, O.P. Eds., *Handbook of Personality: Theory and Research*, Vol. 2, Guilford Press, New York, 102-138.
- [60] John, O.P., L.P. Naumann, & C.J. Soto. 2008. "Paradigm Shift to the Integrative Big Five Trait Taxonomy: History, Measurement, and Conceptual Issues." In *Handbook of Personality: Theory and Research*, edited by O.P. John, R.W. Robins, and L.A. Pervin, 114-158. New York: Guilford.
- [61] Joseph F. Hair Jr. William C. Black Barry J. Babin Rolph E. (2014). *Anderson. Multivariate Data Analysis. Seventh Edition*. Pearson Education Limited.
- [62] Jost, J.T. (2006). The End of the End of Ideology. *American Psychologist*, 61 (7), 651-670. doi:10.1037/0003-066X.61.7.651.
- [63] Jost, J.T., B.A. Nosek, & S.D. Gosling. (2008). Ideology: Its Resurgence in Social, Personality, and Political Psychology. *Perspectives on Psychological Science* 3 (2): 126-136. doi:10.1111/j.1745-6916.2008.00070.x.
- [64] Kaiser, H. (1974). An index of factor simplicity. *Psychometrika*, 39, 31-36.
- [65] Kim, S., Vandenabeele, W., Wright, B.E., Andersen, L.B., Cerase, F.P., K. Christensen, R., De Vivo, P. (2012). The Development of an International Instrument to Measure Public Service Motivation: A Research Note. *Journal of Public Administration Research and Theory*, 23(1), 79-102.
- [66] Kline, R.B. (2011). *Principles and Practice of Structural Equation Modeling*. Guilford Press, New York
- [67] Komarraju, M., Karau, S.J., & Schmeck, R.R. (2009). Role of the big five personality traits in predicting college students' academic motivation and achievement. *Learning and Individual Differences*, 19(1), 47-52. <https://doi.org/10.1016/j.lindif.2008.07.001>.
- [68] Komarraju, M., Karau, S.J. & Schmeck, R.R. (2009). Role of the Big Five Personality Traits. in Le Grand, J. (2003-09-18). *Motivation, Agency, and Public Policy: Of Knights and Knaves, Pawns and Queens*: Oxford University Press. Retrieved 26 Apr. 2020 from <https://www.oxfordscholarship.com/view/10.1093/0199266999.001.0001/acprof-9780199266999>.
- [69] Le Grand, J. (2003). *Motivation, Agency, and Public Policy: Of Knights and Knaves, Pawns and Queens*. Oxford University Press. <https://www.oxfordscholarship.com/view/10.1093/0199266999.001.0001/acprof-9780199266999>.
- [70] Li, M., & Liu, Y. (2014). Development of public service motivation scale in primary and middle school teachers. *China Journal of Health Psychology*, 3, 366-368.
- [71] Li, M., & Wang, Z. (2016). Emotional labour strategies as mediators of the relationship between public service motivation and job satisfaction in Chinese Teachers. *International Journal of Psychology*, 51(3), 177-184.
- [72] Marusic, I., Kamenov, Z., & Jelic, M. (2011). Personality and attachment to friends. *Drustvena Istrazivanja*, 20(4), 1119-1137. doi: 10.1002/per.515
- [73] McCrae, R.R. and P.T. Costa. (2008). The Five-factor Theory of Personality. In *Handbook of Personality: Theory and Research*, 3rd ed., edited by O.P. John, R.W. Robins, and L.A. Pervin, 159-181. New York: Guilford Press.
- [74] McCrae, R.R., & Costa, P.T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52(1), 81-90. <https://doi.org/10.1037/0022-3514.52.1.81>
- [75] McCrae, R.R., & Costa, P.T., Jr. (1997). Personality trait structure as a human universal. *American Psychologist*, 52(5), 509-516. <https://doi.org/10.1037/0003-066X.52.5.509>
- [76] McCrae, R.R., & John, O.P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*, 60(2), 175-215. <https://doi.org/10.1111/j.1467-6494.1992.tb00970.x>
- [77] Medland, S.E., and P.K. Hatemi. (2009). Political Science, Biometric Theory, and Twin Studies: A Methodological Introduction. *Political Analysis*, 17(2), 191-214. doi:10.1093/pan/mpn016.

- [78] Mischel, W., and Y. Shoda. (1995). A Cognitive-affective System Theory of Personality: Reconceptualizing Situations, Dispositions, Dynamics, and Invariance in Personality Structure. *Psychological Review*, 102 (2), 246–268. doi:10.1037/0033-295X.102.2.246
- [79] Mondak, J.J.(2010). *Personality and the Foundations of Political Behavior*. New York, NY: Cambridge University Press.
- [80] Mondak, J.J. (2010). *Personality and the Foundations of Political Behavior*. New York, NY: Cambridge University Press.
- [81] Mondak, J.J., & K.D. Halperin. (2008). A Framework for the Study of Personality and Political Behaviour. *British Journal of Political Science*, 38(2), 335–362. doi:10.1017/S000712340 8000173.
- [82] Mondak, J.J., M.V. Hibbing, D. Canache, M.A. Seligson, and M.R. Anderson. (2010). Personality and Civic Engagement: An Integrative Framework for the Study of Trait Effects on Political Behavior. *American Political Science Review*, 104(1), 85–110. doi:10.1017/S0003055409990359.
- [83] Moon, H. (2001). The two faces of conscientiousness: Duty and achievement striving in escalation of commitment dilemmas. *Journal of Applied Psychology*, 86(3), 533–540. <https://doi.org/10.1037/0021-9010.86.3.535>
- [84] Myers, J. (2008). Public service motivation and performance incentives: A literature review. http://www.publicservices.ac.uk/wp-content/uploads/publicservicemotivationandperformanceincentives_myersjune2008.pdf.
- [85] Nachtigall, C., Kroehne, U., Funke, F., & Steyer, R. (2003). (Why) should we use SEM? Pros and cons of structural equation modeling. *Methods of Psychological Research Online*, 8(2),1-22.
- [86] Nguyen KhacHoan. (2010). Factors affecting employee motivation, case studies at Asia Commercial Joint Stock Bank, Hue branch. *Journal of Science Hue University*, 60.
- [87] Nguyen Thi Gam,PhạmThi Thu Hang, Hoang Van Giap, Ngo Thi Van, Tran Van Tho. (2019). Factors affecting the motivation for staff at the tax departments of the Vinh Phuc Tax Department. *Journal of Science & Technology*, 124(10), 25–30.
- [88] Nguyen Thi Phuong Lan. (2015). Complete the system of motivational tools for civil servants in State administrative agencies. PhD thesis. National Academy of Public Administration.
- [89] Nguyen Van Long. (2010). Promote human resources by motivation. *Journal of Science and Technology*, University of Danang, 4(39).
- [90] Norman, J.W. (1967), Photo-interpretation and Photogrammetry. *The Photogrammetric Record*, 5: 508-508. doi:10.1111/j.1477-9730.1967.tb00905.x
- [91] Pakpour AH, Gellert P, Asefzadeh S, Updegraff JA, Molloy GJ, &Sniehotta FF. (2014).Intention and planning predicting medication adherence following coronary artery bypass graft surgery. *Journal of Psychoso-matic Research*, 77(4), 287–95. <https://doi.org/10.1016/j.jpsychores.2014.07.001> PMID: 25280826
- [92] Perry, J.L. (1996). Measuring public service motivation: An assessment of construct reliability and validity. *Journal of public administration research and theory*, 6(1), 5-22.
- [93] Perry, James L. & Wise, Lois R. (1990). The Motivational Bases of Public Service.*Public Administration Review*, 50 (May/June): 367-373.
- [94] Perry, James. (1997). The Antecedents of Public Service Motivation. *Journal of Public Administration Research and Theory*. 7. 10.1093/oxfordjournals.jpart.a024345.
- [95] Petrovsky, N. (2009). Making social sciences more scientific: the need for predictive models - by Rein Taagepera. *Public Administration*, 87, 977-980. doi:10.1111/j.1467-9299.2009.01793_4.x
- [96] Komarraju, Meera & Karau, Steven &Schmeck, Ronald. (2009). Role of the Big Five personality traits in predicting college students' academic motivation and achievement. *Learning and Individual Differences - Learn Individ Differ*. 19. 47-52. 10.1016/j.lindif.2008.07.001.
- [97] Raykov, T. (1997). Estimation of composite reliability for congeneric measures. *Applied Psychological Measurement*, 21(2), 173-184.
- [98] Raykov, T., &Marcoulides, G. (2006). *A first course in structural equation modeling (2nd Ed.)*. Mahwah, NJ: Lawrence Erlbaum.
- [99] Schmitt, D.P., J. Allik, R.R. McCrae, & V. Benet-Martinez. (2007). The Geographic Distribution of Big Five Personality Traits:PatternsandProfiles of Human Self-description across 56 Nations. *Journal of Cross-cultural Psychology*, 38 (2), 173–212. doi:10.1177/0022022106297299.
- [100] Sibley, C.G., and J. Duckitt. (2008). Personality and Prejudice: A Meta-analysis and Theoretical Review. *Personality and Social Psychology Review*, 12 (3), 248–279.

- doi:10.1177/108886830 8319226.
- [101] Smith, L.M. (1967). The micro-ethnography of the classroom. *Psychology in the Schools*, 4(3), 216–221.
- [102] Smith, R.M and Miao, C.Y. (1994). Assessing unidimensionality for Rasch measurement. In M. Wilson (Ed.): *Objective Measurement: Theory into Practice*. Volume 2. Greenwich: Ablex.
- [103] Snedecor, George W. and Cochran, William G. (1989). *Statistical Methods* (Eighth Edition), Iowa State University Press.
- [104] Truong Minh Duc. (2011). Apply quantitative model to evaluate the level of motivation for Erisson employees in Vietnam. *VNU Science Magazine. Economics and Business*, 27, 240-247.
- [105] Truong Quoc Phong. (2018). Factors affecting working motivation of commune-level cadres and civil servants in Dong Nai province. Master thesis. Ho Chi Minh city University of Economics.
- [106] Tucker, L.R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, 38, 1-10. <https://doi.org/10.1007/BF02291170>
- [107] Tupes, E.C., &Christal, R.C. (1992). Recurrent personality factors based on trait ratings. *Journal of Personality*, 60, 225-251.
- [108] Tung, P.H., & Ly, L.T.K. (2021). Influence of personality traits on people’s satisfaction with public service in Hanoi city, Vietnam. *Linguistics and Culture Review*, 5(S4), 2341-2364. <https://doi.org/10.21744/lingcure.v5nS4.1968>.
- [109] Tung, P.H. (2022). The living wage of workers in Vietnam. *Linguistics and CultureReview*,6(S1), 328-339. <https://doi.org/10.21744/lingcure.v6nS1.2039>
- [110] Tung, P.H. (2022). Living wage for workers in conditions of industrial development in Vietnam. *Linguistics and Culture Review*, 6(S1), 316-327. <https://doi.org/10.21744/lingcure.v6nS1.2040>
- [111] Tung, P.H. (2022). Reforming wage policy for workers towards living wage in Vietnam. *Linguistics and Culture Review*, 6(S1), 340-350. <https://doi.org/10.21744/lingcure.v6nS1.2044>
- [112] Ullman, J.B. (2006). Structural equation modeling: Reviewing the basics and moving forward. *Journal of Personality Assessment*, 87(1), 35-50. <https://doi.org/10.1207/s15327752jpa870103>
- [113] Widaman, F., &Reise, S.P. (1997). Exploring the measurement invariance of psychological instruments: Applications in the substance use domain. In K.J. Bryant, M. Windle, & S.G.West (Eds.), *The science of prevention: Methodological advances from alcohol and substance abuse research* (pp. 281-324). Washington, DC: American Psychological Association. <https://doi.org/10.1037/10222-009>
- [114] Xin Z, Liang M, Zhanyou W, Hua X. (2019). Psychosocial factors influencing shared bicycle travel choices among Chinese: An application of theory planned behavior. *PLoS ONE*,14(1), e0210964. <https://doi.org/10.1371/journal.pone.0210964>
- [115] Yamagata, S., A. Suzuki, J. Ando, Y. Ono, N. Kijima, K. Yoshimura, F. Ostendorf, et al. (2006). Is the Genetic Structure of Human Personality Universal? A Cross-cultural Twin Study from North America, Europe, and Asia. *Journal of Personality and Social Psychology* 90(6), 987–998. doi:10.1037/0022-3514.90.6.987.