The 'OCEAN' is creating tumultuous waves in the industry career: Perspectives in contemporary organisational psychology

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The current work discusses organisational psychology within the context of Singapore's economy. Indeed, employers would be hard pressed to find the right people to employ. Such an instrument as the 'OCEAN' model would be most prudent here. The 'OCEAN' is an acronym of the five distinct attributes of the well-acclaimed Five Factor Model, which has been authenticated throughout the years by a many number of researchers and psychologists. Having identified several assessments, we could see why the 'OCEAN' model is extremely popular, having several assessments such as the 16PF and Hogan Personality Inventory of shared association, while that of others supplementing the 'OCEAN' model as a whole. With our identification of our previous economic ills over the current years in Singapore, we can come to a few hypotheses. Firstly, the 'OCEAN' model identifies employee personalities, secondly, people who go through the 'OCEAN' model will be more successful, and thirdly, tumultuous waves as defined by the retrenchment, redundancy, and unemployment issues in Singapore, are reviving the 'OCEAN' model.

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Since Singapore's recession during the 2009 financial crisis, her economy (Channel News Asia [CNA], 2016; HR in Asia, 2017) has been seen going downhill. Workers over the years have been set for redundancy. Big companies (Azahar, 2018) such as Keppel, Resorts World Sentosa, Standard Charter Bank, and SembCorp Marine, can attest to this, with 400 jobs slashed by Resort World Sentosa to that of 8,000 jobs slashed by SembCorp Marine. Figures reported by the Ministry of Manpower (Ministry of Manpower [MOM], 2017) suggest an increase of workers made redundant after 2009, with annual 9,800 workers affected in 2010 to the annual 19,170 workers affected in 2016. In the first quarter of 2017 alone, 4,000 workers were laid off from their jobs. We see these as reason for our article, an uncertain financial circumstance in Singapore as realized by these statistics within the Ministry of Manpower, for which companies in turned would rely on a more precise job selection application such like those provided by the 'OCEAN' model (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism). To put it simply, we posit resurgence in the use of such job selection applications, especially in such times where the value of hiring new people has become increasingly expensive.

Further evidences of a weakening economy can be found within the MOM website. A chart listed there (Ministry of Manpower, 2016) posits that the first quarter of 2017 (4,850) mirrors that the third quarter of 2016 (4,810), with a near 5,000 workers affected in both the fourth quarters of 2015 (3,520) and of 2016 (3,480). Interestingly there is an article written by Azahar (2018) who posits how companies differed in their outlook of 2017. This indicates that the surveys provided by MOM and by Azahar (HR in Asia, 2017) with one being more hesitant of recruiting more people, and the latter of being optimistic of the situation and welcoming of more people. This aside he suggested a much stringent selection process, that employers themselves are looking to retain than to hire new workers, and that employees are not willing to adapt. With how companies differed in their perspective for the current year, we could assume that said conditions emerge out of these inconsistent periods. A period (Azahar, 2018; MOM, 2016) that states that such peculiar numbers could continue to rise and fall well into the future. Additionally, workers will still be kicked out of jobs in high figures (MOM, 2016); that the number of retrenched workers in both fourth quarters of 2015 (3,520) and of 2016 (3,480) were nowhere near that the first quarter of 2013 (2,010) or second quarter of 2014 (2,010).

This is yet without considering the unemployment figures (Manpower Research and Statistics Department Ministry of Manpower Republic of Singapore [MRSDMMRS], 2017, p.7), which asserts an approximate 74,400 residents, 67,100 whom are Singaporeans, who are unemployed. These numbers have been consistent with that of the previous year 2016, with the unemployment rate increasing from 2.2 to 2.3%. What we can define by the term 'tumultuous' in the industry career could be so with the redundancy issues, with unemployment, and more pressingly, with how companies including both employers and employees, react to such problems, all within the context of local Singapore.

We have previously discussed conditions proposed by Azahar (2018) as the steps taken to the financial turmoil faced in Singapore. These effects as suggested have led to slashed jobs (Azahar, 2018; Chuanren, 2017) through redundancy, retrenchment, and unemployment (CNA, 2016; HR in Asia, 2017; MRSDMMR, 2017), these of which make up for our unfortunate financial situation in Singapore. Employers, if they are looking for people to recruit, are as such are looking for employees who fit the bill. We should note that companies do not necessarily need more recruits, having noted other alternatives such as how some companies focus on retaining their staff while increasing incentives in others (Kalra, 2017). These newly selected employees as such will be tightly scrutinised. Employers would need some form of inventory to test the capacities recruits offer. It is here that assessments such as 'OCEAN' or other personality or career-choice inventories become essential.

With such circumstance circulating Singapore's economy, employers would be hard pressed to find the right people to employ. Such an instrument as the 'OCEAN' model would be most prudent here. The 'OCEAN' is an acronym of the five distinct attributes of the well-acclaimed Five Factor Model (Goldberg,

1990; John, 1990; Digman, 1990), which has been authenticated throughout the years by a many number of researchers and psychologists. It has been widely used (Digman, 1990, 1997; Wiggins & Trapnell, 1997; De Raad, 2000) in the field of organisational psychology and other work and research-based fields. Hence, there is a veritable number of studies of the 'OCEAN' model in relation to employment (De Fruyt & Mervielde, 1999), job satisfaction (Furnham, Petrides, Jackson, & Cotter, 2002), performance (Barrick Mount, 1991; Tett, Jackson, & Rothstein, 1991; Hogan, 1996; Judge, Higgins, Thoresen, & Barrick, 1999), and career success (Judge et al., 1999). A crucial goal set within personality psychology was to establish a model that would help explain the inclinations of individuals (Popkins, 1998), their behaviours, attitudes, and ways of thinking. This would in turn, account for our diverse personalities and disorders. The model was to be applicable to real life circumstance; generally speaking these inclinations that derive our personal traits would make up the bulk of our decision-making process (Matthews, et al., 2003). Unfortunately, the model is more inflexible in that while it is scientifically rigorous (Costa & McCrae, 1988, 1992), it does not account for certain variation within personality. Other assessments like the Myer-Briggs Test Indicator better known as the MBTI (Briggs-Myers & Myers, 1995), are less accountable though more engaging in their description of types. That an assessment such as the 'OCEAN' model holds such a wide acclaim scientifically and academically should reason its use as an effective career screening tool, much so in a circumstance where career retrenchment, redundancy, or unemployment is high. This, no less in a situation where Singapore's economy is at a standstill, and where there is much uncertainty in her progression. The intention for this article is to bring much needed attention to the 'OCEAN' model as an indispensable tool for career screening in such an uncertain time as this.

The 'OCEAN' consists of five components, namely openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. These components were able to be generalised among most cultures (Pulver, Allik, and Pulkkinen, & Hamalainen, 1995; McCrae & Costa, 1997; Salgado, 1997), and were found to be consistent over time (Costa & McCrae, 1988, 1992). These five components would form to correlate with the other, to create a sketch of a person (Human Factors for Healthcare, 2016). Without yet taking the components to set, a person who for example finds it easy to express himself in a large group, would have many acquaintances and friends, and this would of course mean that he would dislike being isolated from people. The above example speaks of correlated traits for which these characteristics go in synch with the other. Two or more characteristics such as hostility and friendliness that do not go together would form orthogonal traits. Again, we will see how an identification of such components of a person would make for an easy screening process.

Openness to experience would suggest an awareness of one's condition and the world. It does not however suggest that one is adaptable; merely it posits that one is more curious in the evaluation of one's own life (Lebowitz, 2016). Another common terminology for openness to experience is 'intellectance', a term used to describe a person who is analytical, creative and adventurous (Soldz & Vaillant, 1999; Career Research, 2016). This as it regards divergent thinking rather than intelligence, suggesting someone who is creative, who loves to travel, or meet new people. Openness to experience describes one's tolerance to the unfamiliar and complex. This person of high openness would not like to be bogged down by rules; rather such a person would be much more comfortable setting the rules, hence setting the stage for his own personal development. Conversely said person could be unfocused or indecisive, and may be prone to job hopping or be otherwise frustrated in normative settings. Those with low openness alternatively would appreciate working with factual data. They are the pragmatics, who sticks to what they know, and may come off as cautious or closed minded.

Conscientiousness describes how we may control our impulses and strive in ways that are socially acceptable (Costa, McCrae, & Dye, 1991). Traits associated with conscientiousness include achievement-striving, persistence, and order. It describes a person, who is meticulous, self-disciplined, hardworking and competent. These describe people who are able to work within an organisation, with

rules and forethought on operations. A person high in conscientiousness would be prudent, considerate of others, and determine to see things through. These people conform to the rules of the environment or the norm, and would often be successful in school and their careers. They are people who organize themselves and plan ahead, being thorough, driven, and perfectionistic. Those with low conscientiousness would appear to be more relaxed, impulsive, and impetuous. While these people may be seen as unreliable or messy, they may have different priorities in life (MacRae, 2015). This geared towards their family, or hobbies, something external than opposed the internal drives of high conscientious individuals. They are as such, more adaptable and more driven by the day by day process than the proposed long-term planning of high conscientious individuals. In summary, conscientiousness is an important predictor of success at work, with several studies backing job-seeking (Wanberg, Watt, & Rumsey, 1996) or counterproductive behaviours (Hogan & Ones, 1997), together with work attendance (Judge, Martocchio, & Thoresen, 1997), and retention (Barrick, Mount, & Strauss, 1994).4

Extraversion describes how one draws and spends energy, being essentially either introverts or extroverts. It relates to the themes of dominance, sociability, a positive outlook, warmth, and energy. Introverts would prefer the close company of a few people they know, whereas extroverts who draw their energy from being with other people, would have many more acquaintances and friends. Introverts require moments of solitude to recharge their energy, whereas extroverts bounce their energy on being and interacting with others. A study by Watson and Clark (1997) suggest that extraversion relates to leadership roles, positive emotions and a large circle of friends. As such, those with high extraversion are more socially-inclined, outgoing, and assertive, whereas those of low extraversion, these introverts are more reserved, silent, and composed.

Where extraversion deals with our interaction with other people, agreeableness looks to how we perceive other people. Traits associated with agreeableness (Soldz & Vaillant, 1999; Career Research, 2016) include kindness, nurturance, courteousness, and warmth which is shared with extraversion. Such individuals with high agreeableness are altruistic, amicable, and overall sensitive to the needs of others. They are forthcoming in their trust of others and may come across as naive. Those with low agreeableness (Roccas, Sagiv, Schwartz, & Knafo, 2002) otherwise are more suspicious of the motives of others, and may come off as blunt and antagonistic, prioritising themselves before other people. The downside that comes with agreeableness is that such people tend to be conflict avoidant, and would put success second to people-pleasing. Certainly however, such individuals may do well in positions of customer service, or in teams (Career Research, 2016).

Neuroticism generally describes a tendency towards pessimism. Costa and McCrae (1988) themselves, have attest to neuroticism as being the most pervasive trait. It regards our emotional stability and confidence. A common terminology for neuroticism is emotional stability. Traits associated with neuroticism include anxiety, anger, depression, worry and insecurity. Individuals high in neuroticism appear temperamental, anxious, and unsure of themselves. In addition, a study by Suls, Greens, and Hills (1998) posits that neurotics are vulnerable to negative life events. These neurotics are easily subject to circumstance for which often offers them a means to develop themselves. An article by the *Huffington Post* (Chan, 2014) attests to this, with healthy neurotics utilizing their anxiety to better themselves. This is especially true for those with high conscientiousness in tandem, as such individuals for example would act on their worry as oppose observe and passively acknowledge, as would those with low conscientiousness and high neuroticism would. In fact, studies would lend further credence to anxiety and the role of intelligence (The Telegraph, 2012). Neuroticism in general describes the emotional intensity of individuals for which those of low neuroticism remain cool and level-headed. Such individuals are confident and free of self-doubt.

The OCEAN model as briefly explained, allows for a much richer understanding of an employee's disposition. The model in no way proposes a person be good at his job, rather that he is capable of

making a life worth living. A person high in openness may be self-autonomous (Ackerman, 2017; Career Research, 2016), but it does not mean that said person is in any way self-autonomous. Nonetheless, the OCEAN model alleviates employers of the complex selection process through a concise and straightforward assessment of one's predisposed elements. In sum, we can easily tell what an employee is likely to offer from their given traits. We can tell from what we've known that people with high openness are individualistic, and more self-determined towards growth. Such categories of people could be of creative designers, bloggers (Relojo, 2017) scientists, and the like. Similarly, we can tell that people with low openness are drawn towards convention and details – These of whom who would make good accountants, office workers, or police officers.

We can remark similar components for the other four elements. With high conscientiousness, we see an overlay with the previous low openness, for such people possess characteristics that make them excellent office workers, managers, accountants, and teachers. We can posit that such people are responsible, prim and proper. They will put more effort into their appearance than suppose those of low conscientiousness, whom we know are messy and work at their own pace. An interesting study by Barrick and Mount (1991) suggest that there is a consistent correlation with job performance criteria for all job categories in the workplace. It could also be (Career Research, 2016) that a person of low conscientiousness share a low openness, people are diverse so such a person could be more technical or hands-on. Again we can see an embodiment of engineers, craftsmen, technicians, security analyst, and so on. Otherwise, a person who embodies high openness with low conscientiousness would be of artisans, writers, and self-start entrepreneurs who work who work with their own time.

Those with high extraversion (Barrick & Mount, 1991; Career Research, 2016) could easily tend to management, to be event organisers and the like. Wherever there is a need to persuade or to motivate people. We know that they can spur people into action and influence them. Those with low extraversion could be cerebral, more incline to duties behind the scenes. These, both high low components coincide with the other four OCEAN components. A person with high extraversion and low openness could suggest a manager-like figure that is a sticker for the rules, and would like things done a certain way. Likewise a person with low extraversion and high conscientiousness could suggest a person befitting a position such as a librarian or duty officer. Agreeableness likewise asserts a person who is altruistic, conflict-avoidant, and conforming. As such we can see positions (Ozer & Benet-Martinez, 2006) such as teachers, nurses, or social relations for such people. Those with low agreeableness would do well in autonomous positions or creative fields similar to those with high openness.

Neuroticism would defer of people with intense melancholic emotions (Ackerman, 2017) that may be sensitive, with a study proposing they are easily affected by the environment. They may do well in fields relating to theatre or the arts, wherever they may direct their deep emotions to. They can be autonomous, relating with previous concepts such as low agreeableness or high openness, if so doing well in such careers as of a writer, illustrator or artist (Pappas, 2015), and straying away from careers such as those of human resource or firefighting where they are inclined to frustration or panic. A consistently large number of studies (Smith, Organ, & Near, 1983; Furnham & Zacherl, 1986; Tokar & Subich, 1997) have suggested a crucial negative correlation between job satisfaction and neuroticism, with a study by Judge and Locke (1993) stating that such neurotics were likely to be accompanied by negative mental cognitions. Those with low neuroticism have a much stable emotional wavelength, fairly remaining in control, suiting those careers where one is needed to stay calm in a fast, reactive, and difficult situation.

Another crucial element of the OCEAN model (Career Research, 2016; Human Factors for Healthcare, 2016) is with how generalised its components relate to the other. A person posited by colleagues to be aggressive, could fall into high extraversion, high conscientiousness, and low agreeableness values. One is still able to make relations between the OCEAN components such as with how high extraversion and

high agreeableness can account for stereotypical caretaker individuals, yet the reason for this specificity within the OCEAN model, allows for a much accessible and variable further research use. This approach used by OCEAN differs widely with the 16PF Questionnaire (John, Robins, & Pervin, 2008) which the OCEAN is previously based upon, with the latter having a much more elaborate definitions of the exact 16 traits. Where you would see vigilance as sceptical, cautionary, or oppositional as described by the 16PF for example, we can see low openness, low agreeableness, and high neuroticism appear with the OCEAN model.

We have long categorize materials and creatures, such that Sir Francis Galton (Career Research, 2016; Human Factors for Healthcare, 2016), a famous statistician, remarked that the essence of certain words associated with the characteristics of people, become their language for this person and those others like him. This concept of course refers to the lexical hypothesis (Crowne, 2007), for which other assessments aside the 'OCEAN' model, like the 16PF (John, Robins, & Pervin, 2008) and HEXACO model of personality structure (Ashton, et al., 2004), is based upon. One hypothesis (Crowne, 2007) suggests that those characteristics that are essential to us become second nature to us - in the sense that our beliefs and attitudes are shaped by these characteristics. These characteristics in turn become an associated word for which we can easily organise and use. With this ease for classification, Allport and Odbert extracted 17,953 (Roivainen, 2013) personality-associated words from English dictionaries, which were refined through testing. This leads to the development of the 16 Personality Questionnaire (John, Robins, & Pervin, 2008) for which five notable components of personality were extracted from. It was researcher Lewis Goldberg (1990, 1993) who independently found the same five components through language analysis, solidifying them into the five aforementioned dichotomies, and phrasing his find as the 'Big Five'. While initial beliefs (Human Factors for Healthcare, 2016) asserts that personality testing is impossible due to how widely attitude and behaviour differ, studies in the 1980s posits that such patterns of behaviour could be predicted through large scale observations. This event leads to more correlated studies of behaviours and attitude. Further studies (Human Factors for Healthcare, 2016) revealed that personality and situation are required to account for human behaviour. Two personality assessments that were developed with said regard are the NEO Five Factor Personality Inventory (Ackerman, 2017), and the Hogan Personality Inventory (Performance Programs, 2017). Both of which are designed for occupational assessments, and are used widely in the industry and public sector (Human Factors for Healthcare, 2016).

A major limitation of the model is with how it is based on group observations than a suppose theory of mind (Human Factors for Healthcare, 2016; Career Research, 2016). That said, we are unable to make attributions of these components to a person's mental state, this being one's belief, knowledge or intent. Said observations consequently have yet to be explained, with the causes for such observations remaining a mystery. An instance of this is a study posits that cheerfulness or sensation-seeking are not related to extraversion, where instead what was discovered was relative to either group or individual-based components, with sensation-seeking and extraversion correlating in groups, and sensation-seeking be realised more in low extraverted or introverted individuals. A recent study (Human Factors for Healthcare, 2016) however asserts that patterns of behaviour manifested by these five components have roots in human biology. Additionally (Human Factors for Healthcare, 2016; Career Research, 2016), the 'OCEAN' model lacks derivative of most other aspects of personality such as psychopathy and Machiavellianism, a part of the dark triad of personality, or gender composition such as masculinity or femininity. As a consequence, there is little in the way for development or the role of experience to human personality.

Another issue in tangent is with how the 'OCEAN' model differs in degree of interpretation by statisticians (Human Factors for Healthcare, 2016; Career Research, 2016). The number of factors could jump from 3 to 18 (Eysenck, 1991), with numerous studies proposing that the five components as being orthogonal or not independent of the other, with some of the components themselves being redundant.

Eysenck (1992), a proponent of less than five components assert such components such as agreeableness and conscientiousness could be formed into psychoticism, a component that lacks either of them. Others (Kacmar & Ferris, 1991; Uman Factors for Healthcare, 2016) have suggested components such as 'getting ahead' to openness and extraversion, and 'getting along' to conscientiousness, emotional stability, and agreeableness. Those aligned for (Human Factors for Healthcare, 2016) the 'OCEAN' model instead propose that while there may be more components that would still work, only a distinct five component structure works consistently across many studies, with the five components that work, being the same five components of the 'OCEAN' model.

Aside the limitations mentioned of the 'OCEAN' model, are other assessments similar in form, working to identify certain strengths weaknesses one may possess, to of identifying leadership qualities, or of occupational type. Some of these assessments would lend further support to the established 'OCEAN' model, offer a different approach entirely, or a combination of both altogether. One may use these assessments to further supplement the care screening process, or use them off as alternatives. They include the 16PF Questionnaire, the DISC assessment, the Holland Codes, the Hogan Personality Inventory, and the Pearson-Marr Archetype Indicator.

The 16PF (John, Robins, & Pervin, 2008) Questionnaire is a similar assessment that came prior the 'OCEAN' model. It includes sixteen dimensions such as warmth, reasoning, emotional stability, dominance, liveliness, rule-consciousness, social boldness, sensitivity, vigilance, abstractedness, privateness, apprehension, openness to change, self-reliance, perfectionism, and tension. It was developed by Raymond Cattell, Maurice Tatsuoka, and Herbert Eber, and was originally used in a clinical setting (Karson & Odell, 1976) to diagnose disorders, though it is just as well capable as a form of a career screening measurement.

The DISC assessment (Marston, 2013) is a behaviour tool based on a theory by William Moulton Marston who created the first polygraph test and the iconic character Wonder Woman. It was eventually turned into an assessment by Walter Vernon Clarke, an industrial psychologist. The assessment centres itself on how people express their emotions and interrelate socially. Likewise there are four components namely drive, influence, steadiness, and compliance. Like the 'OCEAN' model, it is a potential screening tool though it is skewed towards how we respond in interpersonal relations; further, the assessment is used to determine our leadership styles (Beamish, 2005).

The Holland Codes better known as the Holland Occupational Themes, or RIASEC, is based upon career selection theories (Nauta, 2010). The assessment mirrors that of Howard Gardner's Theory of Multiple Intelligences (Gardner, 2011), in that it includes a wide array of components (Ashbridge, Underwood, & Miller, 2017) or types such as doers(realistic), thinkers (investigative), creators (artistic), helper s(social), persuaders (enterprising), and organisers(conventional). Similar to Gardner's theory, people would identify with certain roles befitting a work environment of their choice. The Holland Codes however is much broader as compared the 'OCEAN' model, as it seeks to identify the environment to personality, and so comparatively, it would be wise to first uncover a certain range of interests or environment fits with the Codes, before specifying further an employee to the 'OCEAN' model.

The Hogan Personality Inventory (HPI) is another such tool that instead comes after the formation of the 'OCEAN' model. It contains dimensions such based upon primary and occupational scales, which includes adjustment, ambition, sociability, interpersonal sensitivity, prudence, inquisitive, and learning approach for primary scales; and service orientation, stress tolerance, reliability, clerical potential, sales potential, and managerial potential. The inventory as suggested, is much more refined and well-build up from the previous 'OCEAN' model. Its applications are similar, for career screening, and leadership identification. The inventory could be used as an alternative to the 'OCEAN' model, and

would achieve similar aims, if not more in the application of employee screening (Performance Programs, 2017).

The Pearson-Marr Archetype Indicator or PMAI (Pearson & Marr, 2007), is based on the works of Carl Jung. An archetype is essentially a symbolical reference or thematic association of a stereotype character based upon the foundations of a societal norm, better known as the collective unconscious. It highlights twelve archetypes namely the innocent, orphan, caregiver, warrior, seeker, lover, creator, destroyer, ruler, magician, sage, and jester. People occupy certain archetypes in their daily lives, this in a form similar to previous Holland Codes, where the person identifies with the environment. The process is similar in that we allude certain archetypical patterns in our behaviour towards others and our surroundings. Much as how the Holland Codes can be used to identify broad ranges within one's preferable work environment, one could use the PMAI in a similar fashion before utilizing the 'OCEAN' model with great effect.

Having identified several assessments, we could see why the 'OCEAN' model is extremely popular, having several assessments such as the 16PF and Hogan Personality Inventory of shared association, while that of others supplementing the 'OCEAN' model as a whole. With our identification of our previous economic ills over the current years in Singapore, we can come to a few hypotheses. Firstly, the 'OCEAN' model identifies employee personalities, secondly, people who go through the 'OCEAN' model will be more successful, and thirdly, tumultuous waves as defined by the retrenchment, redundancy, and unemployment issues in Singapore, are reviving the 'OCEAN' model.

References

- Ackerman, C. (2017). *The big five personality theory: The 5 factor model explained.* Retrieved from https://positivepsychologyprogram.com/big-five-personality-theory/
- Ashbridge, S., Underwood, D., & Miller., J. (2017). *Holland Codes & Career decisions.* Retrieved from http://www.roguecc.edu/Counseling/HollandCodes/
- Ashton, M. C., Lee, K., Perugino, M., Szarota, P., De Vries, R. E., Di Blas, L., Boies, K., De Raad, B. (2004). A six-factor structure of personality-descriptive adjectives: Solutions from psycholexical studies in seven languages. *Journal of Personality and Social Psychology. 86* (2), 356–366. https://doi.org/10.1037/0022-3514.86.2.356
- Azahar, W. (2018, January 26). Singapore's 4Q 2017 labour market sees decline in unemployment rates.

 Retrieved from https://www.humanresourcesonline.net/singapores-4q-2017-labour-market-sees-decline-in-unemployment-rates/
- Barrick, M. R. & Mount, M. K. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personal Psychology*, *44*(1), 1–26. https://doi.org/10.1111/j.17446570.1991.tb00688.x
- Barrick, M. R., Mount, M. K., & Strauss, J. P. (1994). Antecedents of involuntary turnover due to a reduction in force. *Personnel Psychology*, 47(3), 515–535. https://doi.org/10.1111/j.1744-6570.1994.tb01735.x

- Beamish, G. (2005). How chief executives learn and what behavior factors distinguish them from other people. *Industrial and Commercial Training, 37*(3), 138–144. https://doi.org/10.1108/00197850510593746
- Briggs-Myers, I., & Myers, P. B. (1995). *Gifts differing: Understanding personality type.* Mountain View, CA: Davies-Black Publishing.
- Career Research. (2016). *Big five factors of personality.* Retrieved from http://career.iresearchnet.com/career-assessment/big-five-factors-of-personality/
- Chan, A. L. (2014). *Why being neurotic could actually be a good thing.* Retrieved from http://www.huffingtonpost.com/2014/04/09/healthy-neuroticism_n_5035297.html
- Channel News Asia. (2016, December 13). *Redundancies in Singapore hit 7-year high; highest since 2009 financial crisis.* Retrieved from http://www.channelnewsasia.com/news/singapore/redundancies-in-singapore-hit-7-year-high-highest-since-2009-fin-7633626
- Chuanren, C. (2017). *Singapore Airlines, Cathay Pacific feeling pinch.* Retrieved from https://www.ainonline.com/aviation-news/air-transport/2017-06-27/singapore-airlines-cathay-pacific-feeling-pinch
- Costa, P. T., & McCrae, R. R. (1988). Personality in adulthood: a six-year longitudinal study of self-reports and spouse ratings on the NEO Personality Inventory. *Journal of Personality and Social Psychology*, *54*(5), 853–863. https://doi.org/10.1037//0022-3514.54.5.853
- Costa, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences*, *13*(6), 653–665. https://doi.org/10.1016/0191-8869(92)90236-i
- Costa, P. T., McCrae, R. R., & Dye, D. A. (1991). Facet scales for agreeableness and conscientiousness: A revision of the NEO Personality Inventory. *Personality and Individual Differences, 12*(9), 887–898. https://doi.org/10.1016/0191-8869(91)90177-d
- Crowne, D. P. (2007). *Personality theory.* Don Mills, ON, Canada: Oxford University Press.
- De Fruyt, F., & Mervielde, I. (1999). RIASEC types and Big Five traits as predictors of employment status and nature of employment. *Personnel Psychology*, *52*(3), 701–727. https://doi.org/10.1111/j.1744-6570.1999.tb00177.x
- De Raad, B. (2000). *The big five personality factors (the psycholexical approach to personality).* Seattle, WA: Hogrefe & Huber.
- Digman, J. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*, *41*(1), 417–440. https://doi.org/10.1146/annurev.psych.41.1.417
- Digman, J. (1997). Higher order factors of the big five. *Journal of Personality and Social Psychology*, 73(6), 1246–1256. https://doi.org/10.1037//0022-3514.73.6.1246
- Eysenck, H. J. (1991). Dimensions of personality: 16, 5 or 3? Criteria for a taxonomic paradigm. *Personality and Individual Differences, 12*(8), 773–790. https://doi.org/10.1016/0191-8869(91)90144-z

- Eysenck, H. J. (1992). Four ways five factors are not basic. *Personality and Individual Differences, 13*(6), 667–673. https://doi.org/10.1016/0191-8869(92)90237-j
- Furnham, A., Petrides, K. V., Jackson, C. J., & Cotter, T. (2002). Do personality factors predict job satisfaction? *Personality and Individual Differences, 33*(8), 1325–1342. https://doi.org/10.1016/s0191-8869(02)00016-8
- Furnham, A., & Zacherl, M. (1986). Personality and job satisfaction. *Personality and Individual Differences*, 7(4), 453–459. https://doi.org/10.1016/0191-8869(86)90123-6
- Gardner, H. (2011). Frames of mind: The theory of multiple intelligences. Hachette: UK.
- Goldberg, L. R. (1990). An alternative "description of personality"; The big five structure. *Journal of Personality and Social Psychology*, *59*(6), 1216–1229. https://doi.org/10.1037//0022-3514.59.6.1216
- 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
- Hogan, R. (1996). Personality assessment. In R. S. Barrett (Ed.), *Fair employment strategies in human resources management* (pp. 144–152). Westport, CT: Quorum
- Hogan, J., & Ones, D. S. (1997). Conscientiousness and integrity at work. In Hogan R, Johnson J, Briggs S (Eds.), *Handbook of personality psychology* (pp. 849–870). San Diego, CA: Academic Press.
- HR in Asia. (2017, February 06). Retrenchments hit a 7-year High in Singapore Since 2009. Retrieved from http://www.hrinasia.com/hr-news/retrenchments-hit-a-7-year-high-in-singapore-since-2009/
- Human Factors for Healthcare. [Human Factors for Healthcare]. (2016, October 17). *Personality types Part 2 The five factor model.* Retrieved from https://www.youtube.com/watch?v=t]SN2Y61Npg
- John, O. (1990). The 'big five' factor taxonomy: Dimensions of personality in the natural language and in questionnaires. In L. A. Pervin (Ed.), *Handbook of personality theory and research* (pp. 66–100). New York: Guilford.
- John, O. P.; Robins, R. W; & Pervin, L. A. (2008). Handbook of personality: Theory and research (3rd ed.). New York, NY: The Guilford Press.
- Judge, T. A., Higgins, C. A., Thoresen, C. J., & Barrick, M. R. (1999). The Big Five personality traits, general mental ability, and career success across the lifespan. *Personnel Psychology*, *52*(3), 621–652. https://doi.org/10.1111/j.1744-6570.1999.tb00174.x
- Judge, T. A., & Locke, E. A. (1993). Effect of dysfunctional thought processes on subjective well-being and job satisfaction. *Journal of Applied Psychology*, *78*(3), 475–490. https://doi.org/10.1037//0021-9010.78.3.475
- Judge, T. A., Martocchio, J. J., & Thoresen, C. J. (1997). Five-factor model of personality and employee absence. *Journal of Applied Psychology*, 82(5), 745. https://doi.org/10.1037/0021-9010.82.5.745

- Kacmar, K. M., & Ferris, G. R. (1991). Perceptions of organizational politics scale (POPS): Development and construct validation. *Educational and Psychological Measurement*, *51*(1), 193–205. https://doi.org/10.1177/0013164491511019
- Kalra, A. S. (2017). Expected salary increases in Singapore for 2017. *Human Resources Online*. Retrieved from http://www.humanresourcesonline.net/expected-salary-increases-singapore-2017
- Karson, S., & O'Dell, J. W. (1976). A guide to the clinical use of the 16 PF. University of Michigan Press.
- Lebowitz, S. (2016). *The 'big 5' personality traits could predict who will and won't become aleader.*Business Insider. Retrieved from http://www.businessinsider.com/big-five-personality-traits-predict-leadership-2016-12
- MacRae, I. (2015). The benefits of low conscientiousness at work. Retrieved from https://highpotentialpsych.co.uk/articles/benefits-low-conscientiousness-work
- Manpower Research and Statistics Department Ministry of Manpower Republic of Singapore. (2017). *Labour market advance release first quarter 2017.* (p. 7). Singapore: Ministry of Manpower.
- Marston, W. M. (2013). Emotions of normal people. Routledge: UK.
- Matthews, Gerald; Deary, Ian J.; Whiteman, Martha C. (2003). *Personality traits* (2nd ed.). Cambridge University Press: UK
- McCrae, R. R., & Costa Jr, P. T. (1997). Personality trait structure as a human universal. *American Psychologist*, *52*(5), 509–516. https://doi.org/10.1037//0003-066x.52.5.509
- Ministry of Manpower. (2016). Labour market statistical information. Retrieved from http://stats.mom.gov.sg/Pages/Home.aspx
- Ministry of Manpower. (2017). Summary table: Retrenchment. Retrieved from http://stats.mom.gov.sg/Pages/Retrenchment-Summary-Table.aspx
- Nauta, M. M. (2010). The development, evolution, and status of Holland's theory of vocational personalities: Reflections and future directions for counseling psychology. *Journal of Counseling Psychology*, 57(1), 11–22. https://doi.org/10.1037/a0018213
- Ozer, D. J., & Benet-Martinez, V. (2006). Personality and the prediction of consequential outcomes. *Annual Review of Psychology, 57*(1), 401–421.

 https://doi.org/10.1146/annurev.psych.57.102904.190127
- Pappas, S. (2015). Why creative geniuses are often neurotic. Retrieved from https://www.livescience.com/52051-why-creative-geniuses-are-neurotic.html
- Pearson, C. & Marr, H. (2007). What story are you living? A workbook and guide for to interpreting results from the Pearson-Marr Archetype Indicator. Center for Applications of Psychological Type
- Performance Programs. (2017). Hogan Personality Inventory. Retrieved from http://www.performanceprograms.com/hogan-assessments-2/hpi/

- Popkins, N. C. (1998). Emergence of a Taxonomic Model for Personality Psychology. Retrieved from http://www.personalityresearch.org/papers/popkins.html
- Pulver, A., Allik, J., Pulkkinen, L., &; Hamalainen, M. (1995). A big five personality inventory in two non-Indo-European languages. *European Journal of Personality, 9*(2), 109–124. https://doi.org/10.1002/per.2410090205
- Relojo, D. (2017). Blog psychology: Insights, benefits, and research agenda on blogs as a dynamic medium to promote the discipline of psychology and allied fields. *Psychreg Journal of Psychology*, 1(2), 70–75. https://doi.org/10.5281/zenodo.1289165
- Roccas, S., Sagiv, L., Schwartz, S. H., & Knafo, A. (2002). The big five personality factors and personal values. *Personality and Social Psychology, 28*, 789–801. https://doi.org/10.1177/0146167202289008
- Roivainen, E. (2013). Frequency of the use of English personality adjectives: Implications for personality theory. *Journal of Research in Personality*, 47(4), 417–420. https://doi.org/10.1016/j.jrp.2013.04.004
- Salgado, J. F. (1997). The five factor model of personality and job performance in the European Community. *Journal of Applied Psychology*, *82*(1), 30–43. https://doi.org/10.1037//00219010.82.1.30
- Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology*, *68*(4), 653–663. https://doi.org/10.1037//00219010.68.4.653
- Soldz, S., & Vaillant, G. E. (1999). The big five personality traits and the life course: A 45-year longitudinal study. *Journal of Research in Personality*, *33*(2), 208–232. https://doi.org/10.1006/jrpe.1999.2243
- Suls, J., Green, P., & Hillis, S. (1998). Emotional reactivity to everyday problems, affective inertia, and neuroticism. *Personality and Social Psychology Bulletin, 24*(2), 127–136. https://doi.org/10.1177/0146167298242002
- Tett, R. P., Jackson, D. N., & Rothstein, M. (1991). Personality measures as predictors of job performance: A meta-analytic review. *Personal Psychology, 44*(4), 703–742. https://doi.org/10.1111/j.1744-6570.1991.tb00696.x
- The Telegraph. (2012). Worrying is good for you and reflects higher IQ. Retrieved from http://www.telegraph.co.uk/news/9202935/Worrying-is-good-for-you-and-reflects-higher-IQ.html
- Tokar, D. M., & Subich, L. M. (1997). Relative contributions of congruence and personality dimensions to job satisfaction. *Journal of Vocational Behavior*, *50*(3), 482–491. https://doi.org/10.1006/jvbe.1996.1546
- Wanberg, C. R., Watt, J. D., & Rumsey, D. J. (1996). Individuals without jobs: An empirical study of jobseeking behavior and reemployment. *Journal of Applied Psychology, 81*(1), 76–87. https://doi.org/10.1037//0021-9010.81.1.76

- Watson, D., & Clark, L. A. (1997). Extraversion and its positive emotional core. In *Handbook of Personality Psychology* (pp. 767–793). San Diego, CA: Academic Press.
- Wiggins, J. S., & Diggs (Eds.), Personality structure: The return of the Big Five. In R.Hogan, J. Johnson, & S. Briggs (Eds.), *Handbook of personality psychology* (pp. 737–765). San Diego, CA: Academic Press.