

## Psychosocial Factors of Stock Investors' Inclination: The Case of the South Pacific Stock Market

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Abstract. Previous research has documented that psychosocial resources and socioeconomic status have significant influences on investment behavior in financial assets. There are currently no studies available about the motivating factors of individual investor participation in the South Pacific Stock Market to the researcher's knowledge. This study investigates the motivating factors of existing and potential stock market investors in countries with similar socio-cultural backgrounds. Using a purposive sample of potential stock investors in Fiji, the study sample included 162 participants with university education (banking and finance). Two research assistants were involved in collecting data, and 108 questionnaires were received via email and Google forms while the balance 54 were collected physically. The researcher tested how enterprising personality plays a mediating role in relation to the association between individual characteristics and investment behavior in the Structural Equation Modeling (SEM) framework. The results revealed that four latent factors (intuition, education and knowledge, sociocultural norms, and enterprising personality) are distinct dimensions of investment inclination together with the maturity factor (age) towards stock investments. The findings will be useful for financial service providers and regulators in designing educational programs to enhance enterprising personality qualities amongst people generally, and inculcate positive attitudes towards stock investments in the young through high school curricula and mass-awareness programs.

**Keywords**: enterprising personality, investment behavior, investment inclination, psychosocial resources, stock investors

## Faktor Psikososial Kecenderungan Investor Saham: Kasus Pasar Saham Pasifik Selatan

Abstrak. Penelitian sebelumnya telah mendokumentasikan bahwa sumber daya psikososial dan status sosial ekonomi memiliki pengaruh yang signifikan terhadap perilaku investasi dalam aset keuangan. Saat ini, sesuai pengetahuan peneliti, tidak ada penelitian yang tersedia tentang faktor faktor memotivasi partisipasi investor individu di pasar saham Pasifik Selatan. Studi ini menyelidiki faktor-faktor yang memotivasi investor pasar saham yang ada dan potensial di negara-negara dengan latar belakang sosial-budaya yang serupa. Dengan menggunakan sampel purposif dari investor saham potensial di Fiji, sampel penelitian termasuk 162 peserta dengan pendidikan universitas (perbankan dan keuangan). Dua asisten peneliti terlibat dalam mengumpulkan data, dan 108 kuesioner diterima melalui email dan Google form sementara 54 sisanya dikumpulkan secara fisik. Peneliti menguji bagaimana kepribadian yang giat (enterprising personality) memainkan peran mediasi dalam kaitannya dengan hubungan antara karakteristik individu dan perilaku investasi dalam kerangka Structural Equation Modeling (SEM). Hasil penelitian mengungkap bahwa empat faktor laten (intuisi, pendidikan dan pengetahuan, norma sosiokultural, dan kepribadian yang giat) adalah dimensi yang berbeda dari kecenderungan investasi bersama dengan faktor kedewasaan (usia) terhadap investasi saham. Temuan ini akan berguna bagi penyedia layanan keuangan dan regulator dalam merancang program pendidikan untuk meningkatkan kualitas kepribadian yang giat di antara orang-orang pada umumnya, dan menanamkan sikap positif terhadap investasi saham pada generasi muda melalui kurikulum sekolah menengah dan kesadaran massal.

**Kata Kunci:** investor saham, kecenderungan investasi, kepribadian yang giat, perilaku investasi, sumber daya psikososial

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The South Pacific Stock Market (SPX in Fiji) is experiencing a prolonged sluggishness, while individual participation in financial markets elsewhere has risen sharply in recent times (see, Fufa & Kim, 2018; Pan & Mishra, 2018; Akhtar & Das, 2019; Ho, 2019; Matadeen, 2019). The investor participation in SPX is extremely low with only 19.000+ retail shareholders (< 0.1% of the population), compared to 100.000+ shareholders (> 8% of the population) in the Stock Exchange of Mauritius (SEM) (Saliya, 2020; SPSE (South Pacific Stock Exchange), 2018). Mauritius had similar macroeconomic indicators in the 1980s after independence from the British colonial masters (Prasad, 2014). The average free float of the SPX seems critically low (20% of the total shareholdings) compared to 70% in the SEM. By 2019, the SEM had crossed the Rs. 400 billion mark in market capitalization, which represented 83% of the GDP compared to 28% of the SPX in Fiji (SEM [Stock Exchange of Mauritius], 2019; Saliya, 2020). Thus, there is a need for greater participation of individual investors in channeling money into equities, which is a vital source of capital for corporates. Our target group discussions with three licensed stockbrokers in Fiji revealed that they deal with only a few hundred clients totaling fewer than 2000 individuals suggesting that only a flimsy 1000+ shareholders are active in the SPX. This situation, we believe, is a phenomenon worthy of investigation. Although a few econometric studies have been conducted

on this tiny stock market (see, Saliya, 2020; Prasad, 2014) no psycho-behavioral-finance study is available to the best of our knowledge.

There has been a lot of research on determinants of Stock Market Development (SMD) from macroeconomic and institutional viewpoints such as demand and supply forces, market liquidity, the efficient transactionprocessing, intrinsic value, institutional support, and regulatory issues, etc. (see, El-Wassal, 2005; Scatizzi, 2006; Yartey, 2010; Ho & Iyke, 2017; Pan & Mishra, 2018). Many of these studies documented the association between stock market determinants and SMD using Market Capitalization (MCAP) as a proxy of SMD. But the MCAP may not fully capture the level of SMD because it largely reflects the size of the stock market at a particular point of time rather than the level of activities for a period of time such as the annual turnover in dollar terms or the level of activities in terms of active investors and/or number of transactions. On the other hand, when investigating the determinants of SMD, it may be more rational to explore the underpinning forces of MCAP, rather than MCAP itself. Apart from macroeconomic and institutional factors, the MCAP may also depend on the extent (the numbers), the nature of stock investors (institutional and retail), and the level of participation (the trading volumes as well as the vibrancy). Studies about the impact of the levels and the nature of activities including investor participation on SMD are rare to the best of our knowledge. To fill this gap, we conducted this research focusing on stock investors' individual psychosocial characteristics, behavior, Stock Market Participation (SMP) from the retail perspective, and individual stock investors.

Taking a step further, in recent times few researchers have identified predictors of investment intention in stock markets using behavioral theories such as Theory of Planned Behavior (TPB) (Akhtar & Das, 2019; Saliya, 2021b). However, the association between the actual investment behavior and the investment inclination has rarely been investigated. Also, many studies fail to include individual demographic factors in their models such as ethnicity and age and which may play a vital role in investment behavior. The present study encapsulated these psychosocial factors and examined their association with the investment intention which may, in turn, contribute to SMP behavior.

Previous research on behavioral finance has provided mixed findings about investment decisions in financial assets listed in stock markets. Some behavioral finance researcher (for example, Chun & Ming, 2009; Rubaltelli et al., 2010) assert that stock market investment requires clear thinking and a rational mind. While some other researchers (for example, Escobari & Jafarinejad, 2019; Chen & Zheng, 2020; Kocaarslan, 2020) suggest stock investors need to be high-risk-takers. These findings call for further investigation of personal resources relevant to stock market participation. Particularly, there is a growing interest in *Enterprising Personality* (ENP) as a personal resource required for inclination and participation in stock market investments (Vasile, 2018). Persons who have an ENP, which is one of the six personality types presented by Holland (1997) are described as people who are energetic, ambitious, enthusiastic, adventurous, and performing for economic gain. Further, Cillo et al. (2018) show that individual psychosocial and cultural characteristics seem to influence *Investment Inclination* (IIN) as reflected by ENP to drive individuals towards SMP.

## Theoretical framework

Many theories have been published on psychological and sociological factors to explain individual investors' investment decisions (Barber & Odean, 2013; Clark-Murphy & Soutar, 2004; Korniotis & Kumar, 2011; Kumar & Lim, 2007; Saliya, 2021a; Seasholes & Zhu, 2010). Sarwar and Afaf (2016) showed that psychological factors have stronger effects on investors' decision making than do economic factors. However, the potential mediating role of psychosocial resources has been rarely explored in relation to SMP behavior. Also, particularly in social behavioral science, there is a growing interest in using 'resource focused models' to assess psychosocial pathways leading to behavioral outcomes (Wickrama et al., 2015). Consistent with this perspective, previous studies have used psychosocial resources, such as mastery (Pearlin et al., 1981), hardiness (Kobasa, 1979), self-efficacy (Bandura, 1992) and sense of coherence (Antonovsky, 1979) to capture different dimensions of one's positive psychological resources influencing his/her behavior. Accordingly, Wickrama et al. (2015) have shown that psychosocial resources have positive consequences for individual psychobehavioral and socioeconomic outcomes, and we expect a similar mediating role for psychosocial resources (e.g., ENP) with regard to SMP outcomes. However, very limited literature is available in the Fijian or Island nations' context, in the Pacific region, regarding individuals' willingness to participate in financial markets. Therefore, we aim to investigate ENP as the key resource mechanism linking individual characteristics of IIN towards SMP.

Figure 1 presents the theoretical framework for the study. In this framework ENP, as the key mediating variable, links individual psychosocial and cultural characteristics, namely, intuition, knowledge and education, and socio-cultural norms to IIN. In addition, maturity (age) is hypothesized to directly influence IIN. We will discuss each of these constructs in the paragraphs that follow.

### Figure 1

The Theoretical Framework and Hypothesized Pathway Analysis



# Enterprising personality (ENP) as a psychosocial resources

Enterprising, as a personality trait, is defined as good at thinking of and doing new and difficult things, especially things that will make money (Cambridge, 2020). Using Holland's (1997) SOS enterprising (E) scale, Zulaifah (2005) showed that ENP is significantly related to uncertainty tolerance. In this light, and because studies in behavioral finance have shown that personal resources have an effect on investment decisions (Durand et al., 2008) we contend that ENP is a broad construct of positive psychosocial feelings with various dimensions motivating individuals towards SMP.

Recently, Martínez-Loredo et al. (2018) have introduced a multifactor implicit-measure model to assess ENP dimensions enfolding eight traits (with associated *stimuli words*); achievement motivation (persistent), autonomy (initiative), innovativeness (creative), self-efficacy (competent), locus of control (responsible), optimism (positive), stress tolerance (stable, calm) and risk-taking (courageous, daring). In addition, Vasile (2018) reveals that persons who have an ENP make active decisions and were actively involved in taking control of their lives more than others. Thus, consistent with the behavioral financial models previously adopted, we hypothesize that: Within our sample of potential stock investors (employed university educated individuals), ENP will positively influence their inclination towards SMP.

# Individual psychosocial and cultural characteristics influencing ENP

## 1. Intuition

Intuition means an accumulation of attitudes triggering inclinations to believe (Earlenbaugh & Molyneux, 2009; Wilder, 1967). Intuitive thinking is defined as automatic, fast, effortless, unconscious, and based on vast amounts of prior experience (Hogarth, 2001) and demonstrates an integration of information and feelings in an cumulative manner (Hogarth, 2001; Glöckner & Betsch, 2008). Intuitive processes have little or no informationprocessing costs (Hogarth & Karelaia, 2007) and empower individuals to justify their behavior quickly and rationally (Glöckner & Betsch, 2008; Saliya, 2019). Finally, intuition is typically contrasted with deliberation which describes slow, effortful, stepwise, and mostly rulegoverned processes (Horstmann et al., 2009). According to Hunjra et al. (2016) the main determinants of choice of investment are propensity of risk, framing of problem, asymmetry of information, and perception of risk. Connecting intuition to common sense, Yurttadur and Ozcelik (2019) reveal that the investment behavior of people is directed by common sense but with an overconfidence tendency. Based on these findings, we anticipate that intuition, as captured by the instinctive feelings of respondents, will be positively associated with IIN directly and/or indirectly affecting SMP. As Martínez-Loredo et al. (2018) point out, because the trait of 'risk-taking' contributes to the development of ENP, we hypothesize that: *The individual's intuitive* characteristics (which are loaded with riskrelated attitudes) influence ENP.

# 2. Socio-cultural norms

Hofstede (1980; 2001) seminal work shows how cultural values at individual or societal levels are influenced by national culture which is supposedly represented by four quantifiable dimensions: uncertainty-avoidance, individualism, masculinity and power distance. The dimension of uncertainty-avoidance represents a preference for certainty and discomfort with unstructured or ambiguous situations-similar to investment activities in highly volatile stock markets. In other work, Cillo et al. (2018) tested the relationship between innovativeness and individual investors' SMP and found that national culture moderates this relationship (Saliya & Jayasinghe, 2016). Also, Hong et al. (2004) suggest that peers have a large impact on the SMP of an individual, while Brown et al. (2008) show that individuals are more likely to invest in stocks when their peers participate because of perceived social pressure to act uniformly (Ajzen, 1991; East, 1993). However, Cuong and Jian (2014) argue that, even though intention is largely affected by factors like suggestions from friends (socio-cultural) and availability of funds, psychological factors like overconfidence (intuition), optimism and riskattitude (factors of ENP) were more important determinants of IIN. By separating these attributes into socio-cultural, intuitive and ENP dimensions, we anticipate that socio-cultural factors, as captured by ethnicity (origin) and perceived importance of the SPX on the Fijian people, will have significant association with IIN through ENP and towards SMP. Moreover, because entrepreneurial intention and activities are commonly attributed to the interaction of socio-cultural values and attitudes (Hopp & Stephan, 2012; Thornton et al., 2011) we

hypothesize that: *Socio-cultural factors influence ENP*.

#### 3. Knowledge and education

Financial knowledge can be defined as information that is acquired through learning, organizing, representing and storing in the memory (Wang, 2009). Past studies have suggested that good financial behavior is often associated with higher levels of financial knowledge (Edmiston & Gillett-Fisher, 2006). McEwen and Gianaros (2011) argue that less educated youth are more likely to engage in risk behaviors which are also linked to poor health, and investment behavior too. Therefore, we embedded the level of education to the knowledge dimension which we hypothesized would influence the IIN via ENP. However, there is limited literature illustrating the relationship between financial knowledge and taking risks while making an investment (Wang, 2009). Research has suggested that financial knowledge is comprised of two basic components, namely, objective financial knowledge and subjective financial knowledge (Wang, 2009). Objective financial knowledge facilitates acquisition of knowledge, whereas subjective financial knowledge increases the degree of reliability of the existing knowledge. Therefore, we hypothesize that: *Knowledge and* education may contribute to the development of ENP towards IIN of current and potential stock investors.

According to Klapper et al. (2013), individuals with knowledge of basic financial concepts are said to be financially literate. Financial knowledge is crucial in a scenario when financial markets have complex financial products. It has been observed that financial ignorance can have disastrous results, for instance: ending up with bigger debts and higher interest rates on loans (Lusardi & de Bassa Scheresberg, 2013), and more borrowing and less saving. On the other hand, people who have financial knowledge are better in terms of financial management (Lusardi & de Bassa Scheresberg, 2013). These individuals are more likely to diversify risk by spreading their funds across different financial assets (Abreu & Mendes, 2010). Financial knowledge might also lead an individual to sharpen their financial skills and attitudes (Hassan Al Tamimi & Anood Bin Kalli, 2009). Campbell (2006) linked low SMP to little knowledge of stocks and the working of the stock market in general, while Guiso and Jappelli (2005) confirm this by showing a positive correlation between financial literacy and SMP. Therefore, in our study, we hypothesize that: ENP is also influenced by financial knowledge.

## Maturity

It is argued that *elderly* individuals typically show more maturity with longer social experiences and are cautious about their savings and investments. Previous studies have shown that associations between psychosocial resources and IIN differ across *age* (Beatty et al., 2011). Further, there is evidence that selfesteem is positively associated with *age* (Vasile, 2018). As a result, the age of an individual may influence his/her self-evaluations (Rosenberg, 1979) and could directly influence IIN. Yurttadur and Ozcelik (2019) show that an overconfidence-tendency is observed in middle-age. Thus, we hypothesize that: *Individuals' age will have a positive impact on IIN.* 

In sum, we tested whether ENP plays a mediating role in relation to the association between three individual characteristics (intuition, knowledge and education, and sociocultural norms) and IIN, and the age factor directly towards IIN for SMP as a causal Structural Equation Model (SEM). So we endeavored to analyse and estimate how individuals are motivated to invest in the SPX. As depicted in Figure 1, the specific objectives are as follows: (1) To test the power of influence that ENP has in mediating the relationship between impact of intuition, knowledge and education, sociocultural norms, and IIN; (2) To test whether maturity (age) positively influences IIN; and (3) To test whether IIN positively influences SMP.

# Method

The study sample included 162 participants with university education. The Structural Equation Model Sample Size Calculator recommended a minimum sample size of 137 (Analytics Calculator, 2019) for the testing of hypothesized models. Two research assistants were involved in collecting data, and 108 questionnaires were received via email and Google forms. The survey was carried out with employed university students, in wide age groups, majoring in Banking and Finance. We used the questionnaire to gather the knowledge, feelings and behavior of these people in relation to the SPX in several aspects using 18 items. Five items involved demographic factors: age, assets, level of education, income level and origin (Indigenous, Fiji-Indian, and other) while 13 items had Likert-scale answers (from *5* = *Strongly agree, to 1= Strongly disagree*).

#### Measures

Self-reporting is very common in social research for capturing psychosocial characteristics, despite the responses being influenced by social desirability and self-biases (Navarro-González et al 2016). According to de Houwer et al. (2009), use of *implicit* measures could minimize this effect because such enquiries might automatically activate cognitive associations (Fazio & Olson, 2003). Therefore, we strived to explore unbiased responses as much as possible by posing statements/enquiries which contain the characteristics to be captured in an *implicit* manner, sometimes with reverse coding.

#### Enterprising personality

Drawing from many studies, such as Martínez-Loredo et al. (2018), we use five measures to capture five traits (out of the eight) of ENP (achievement motivation, risk-taking, selfefficacy, self-control, and optimism) to assess ENP. The achievement motivation trait is defined as the desire to achieve (Rauch & Frese, 2007a), and captured by posing the enquiry: 'share market is for wealthy people'. The risktaking trait is described as the tendency and will to assume risk which offers more benefits than negative consequences (Moore & Gullone, 1996), and is captured with the response to the statement: 'I rather earn interest from my bank deposits'. In this case, since bank deposits are considered as low risk investments, the response 'strongly agree' would be assigned a score of 1 while 'strongly disagree' would get 5, a reverse code, for example.

Some studies have shown that selfefficacy is a clearer construct and depicts better correlation with willingness (enterprising) than perceived behavioral control (Armitage & Conner, 2001). Similarly, financial selfefficacy is defined as the belief in one's capability to achieve certain financial goals (Forbes & Kara, 2010), and therefore plays a critical role in shaping up ENP dimension in our model in this study. Drawing from Bandura (1992), because self-efficacy refers to an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1992), we attempted to capture self-efficacy from the item: 'I can do just about anything that I really set in my mind'.

The self-control trait is about the causal attribution of consequences of one's own behavior (Rauch & Frese, 2007b) and is measured

from the item: '*I have little control over the things that happen to me*' (reverse coded). Finally, the optimism trait, which is defined as the beliefs a person has about good things happening more than bad things in their life (Sheppard et al, 2002), is measured from the response to the statement '*I am happy with the way the life goes*'.

### Intuition

We capture this characteristic through two items: risk-appetite and overconfidence tendency or contention (Yurttadur & Ozcelik, 2019). The risk-appetite or the intensity of risk involved with capital investment is measured from the item '*Investing in shares is a risky business*'. The characteristic of contention is measured through a statement in negative form: '*Becoming rich depends more on factors beyond my control*'.

## Knowledge and education

This dimension is measured by three items: awareness of the stock market, operational skills, and level of academic education. The relevant enquiries are: '*There are 25 companies listed in the SPX*' (for market awareness), '*I do not know how to trade securities in the SPX*' (for operational skills), and the academic education is indicated under the demographic section of the questionnaire through choosing 'graduate', 'postgraduate', 'masters', and 'doctorate'.

# Socio-cultural norms

One measure we use to measure this dimension is the ethnicity of the participants,

and we asked them to indicate their origin, i.e., the ethnicity: *Indigenous, Fiji Indian,* or *other*. The other measure gathers their views on the importance of the SPX for Fijian people (perception of the stock market), and they responded using the same Likert scale of 1 to 5 for *'strongly agree'* to *'strongly disagree'* respectively (reverse coded) for the enquiry: *'Stock market has very little impact on Fijians'*.

## Hypothesis and the model

Intuition, knowledge and education, sociocultural norms, and ENP were defined as latent factors using multiple indicators. Statistically, latent factors reflect the common variance of indicators, and the squared loading of indicators reflects the amounts of variance of the indicators explained by the latent factor. IIN is hypothesized to be influenced by intuition, knowledge and education, sociocultural norms, and ENP alone with the age. As depicted in the theoretical model, we conducted a path analysis in SEM framework, estimating the influences of individual characteristics on IIN, and then the impact of IIN on SMP within the same model.

This analysis was performed with Mplus version 8.0 (Muthén & Muthén, 2017) with Maximum Likelihood Estimation. A range of fit indices were used to evaluate the model fit of the models including the chi-square statistic, Cumulative Fit Indices (CFI), and Root Mean Square Error of Approximation (RMSEA). For the chi-square fit statistic, the model is thought to fit the data well when the chi-square divided by the degrees of freedom is below 3.0 (Carmines & McIver, 1981). The CFI and RMSEA were used to evaluate the models' fit due to the fact that they were not directly related to the sample size. We used the chi-square statistic, the CFI, and the RMSEA to evaluate the model fit. Hu and Bentler (1999) report that a CFI value greater than .90 ensures that the model is not mis-specified. MacCallum et al. (1996) report that a RMSEA nearing .08 indicates a reasonably good model fit.

#### Results

#### Descriptives and bi-variate correlations

Descriptive statistics and correlations among all study variables are shown in Table 1. The means of the variables were within 1.5 (Std. Dev. = 1.269) and 3.49 (Std. Dev. = .614). All the study variables were correlated in the expected direction. The skewness of the variables were within -.533 and .865 except stock market participation which showed 2.476 of skewness confirming clear normal distributions. As expected, there were significant positive correlations between age and the intuitional characteristic of risk-taking (r = .258, p < .01), knowledge and educational characteristic of market awareness (r = .216, p < .01), and the level of education (r = .668, p<.05).

Origin factor (the ethnicity), a variable constituent of sociocultural norms showed a negative correlation with the ENP constituent variable of self-control (r=-.222, p<.01), suggesting people of Indian origin experience less self-control The contention variable, which is a constituent construct of intuition dimension showed a significant positive correlation with the constituent variable for risk-taking (r = .316, p < .01) an selfefficacy (r = .341, p < .01) of ENP dimension, suggesting that more confident investors showed more willingness to take risk in relation to SMP.

# Latent factors and loadings of manifest variables

Figure 2 presents the results for the measurement part of the model, factor loading of ENP, intuition, knowledge and socio-cultural norms. All 13 items showed significant substantial factor loadings to respective dimensions (p < .05) showing acceptable reliabilities and validities of these items in relation to the defined constructs (Bollen, 1989). There were no significant cross-factor loadings. Measurement errors of observed responses and significant error correlations which were freed to be correlated are not shown in the figure. Thus, measurement part of the model (factor loading) showed that manifest variables significantly define and capture four latent factors: intuition, knowledge and education, socio-cultural norms and enterprising personality.

#### Testing hypothesized associations

Standardized regression coefficients for hypothesized associations are presented in Figure 3.

# Figure 2

Construction of Enterprise Personality and Associated Dimensions with Respective Loadings and Display of Hypotheses and Correlations



**Figure 3** Overall Path Analysis Model



The positive highly significant association between intuition and enterprise personality ( $\beta$  = .75, p < .01) suggests that increase in Intuition by one unit would result in an increase of .75 units in enterprising personality. However, as shown in Table 1, it appears that the zero-order correlations between the constituent items of these dimensions showed weaker associations.

The findings also supported the existence of a pathway from knowledge and education to the ENP. The participants with higher academic education showed significant influence towards enterprise personality ( $\beta$  = .35, *p* < .05), suggesting that one unit increase in knowledge and education would influence the ENP to increase by .35. This association, too, was stronger than the zero-order correlations between all constituent constructs of both dimensions, except between the variable operating skills of knowledge and education dimension and optimism variable of ENP (r = .363, p < .01). The observed strong regression coefficients between Intuition and ENP, and Knowledge and education and ENP may be attributed to the fact that structural equation modeling with multiple indicators accounting for the measurement errors of manifest variables and correct for the attenuation of coefficients

(Bollen, 1989). Results also confirm that Socio-cultural norms significantly and positively influence ENP, i.e., one unit increase in sociocultural norms would result in an increase of .30 units in ENP.

Overall, enterprising personality showed a positive association with investment inclination ( $\beta$  = .23, *p* < .05) backed by the associated dimensions of intuition, knowledge and education, sociocultural norms, and maturity. The findings supported the existence of significant association between maturity and ENP ( $\beta$  = .26, *p* < .05), so that one-year increase in age would increase ENP by .26 units. Investment inclination, which was positively influenced by enterprising personality ( $\beta$  = .23, p < .05), showed a positive association with SMP ( $\beta$  = .33, p < .05). Therefore, one unit increase in enterprising personality could elevate the investment inclination of people by .23, and a one unit increase in investment inclination would motivate them to participate in the stock market by .33-unit investment inclinations more.

Overall, the path analysis model accounted for 83% of the variance in ENP, 12% of the variance in IIN, 10% of the variance in SMP, and the model shows an acceptable fit with the data (CFI. 81, RMSEA .075), Chi-sq. (df) = 196.16 (93), Chi-sq/df = 2. 10, SRMR = .076).

Variables	SMP	1	2	3	4	5	6	7	8	6	10	11	12	13	14
1. Investment Inclination	$.330^{**}$	ı													
2. Achievement Motivation	.144	.123	ı												
3. Risk-taking	.106	$.213^{**}$	$.406^{**}$												
4. Self-Efficacy	.106	.207**	$.360^{**}$	.109	,										
5. Self-Control	.1	.019	.263**	.259**	.287**										
6. Optimism	.111	.004	.468**	.259**	.331**	.143	ı								
7. Risk Appetite	$.193^{*}$	.116	250**	181	06	098	086	,							
8. Contention	$.333^{**}$	.104	.12	$.316^{**}$	$.341^{**}$	$.201^{*}$	.148	.095	ı						
9. Market Awareness	091	.162*	.241**	.264**	.141	.029	.246**	.045	.038	,					
10. Operational Skills	.023	.074	.255**	$.270^{**}$	076	.045	.363**	026	025	.219**					
11. Knowledge & Education	.154	.153	$.194^{*}$	$.292^{**}$	.075	$.178^{*}$	.135	195*	175*	$.216^{**}$	.138	,			
12. Origin	.092	031	043	07	.105	222**	.013	055	085	.055	063	60.			
13. Perception SPX	$.198^{*}$	.109	.209**	.028	012	.205**	.147	.103	141	097	$.179^{*}$	960.	125		
14. Agc	.147	.251**	.054	.258**	.073	$.184^{*}$	.123	105	039	.256**	<b>080</b> .	.668**	.062	033	
Mean	1.23	3.16	3.49	2.99	3.09	3.13	3.16	3.25	3.29	2.83	2.7	1.51	1.87	3.2	1.79
Std. Deviation	.634	1.99	1.269	1.16	1.2	1.137	1.263	1.182	1.261	1.061	1.233	.614	.486	1.243	.788
Skewness	2.476	16	533	.269	082	041	197	127	368	.42	.55	LLL.	313	108	.865
Note. SMP = Stock Market Particij	pation														
** Correlation is significant at the	0.01 level (	2-tailed).													
* Correlation is significant at the 0.	.05 level (2-	tailed).													

Table 1Descriptive Statistics and Correlations among All Study Variables

#### Discussion

In the present investigation, we captured cumulative psychosocial resources by generating a composite dimension of enterprising personality summing the dichotomous indicators of achievement motivation, risk-taking, self-efficacy, selfcontrol, and optimism. Similarly, we captured three more composite dimensions: intuition, knowledge and education, and socio-cultural norms to capture further attributes and resources. These were: risk-appetite, contention (overconfidence), market awareness, operational skills, academic education, ethnicity (origin), and perception on the SPX. All these dimensions showed positive significant association with investor inclination towards stock market participation.

This study had two main objectives. First to confirm the hypothesized theoretical framework with different dimensions of the IIN, and then to test this model in the Fijian context using relevant exogenous variables. This study also revealed that four latent factors (intuition, knowledge and education, sociocultural norms, and enterprising personality) are distinct dimensions of investment inclination together with the maturity factor.

In general, the results of the study supported the hypothesized model which showed that ENP mediates the influence of individual characteristics on IIN which, in turn, influences SMP. Overall, the study provided useful findings about the role of individual characteristics and personal resources influencing SMP, which may have important implications for financial policy and programme planners in Fiji context.

The present study has used a SEM Framework to analyse the data. SEM allowed us to account for the measurement errors of the responses. Also, we have used several fit indices to evaluate the hypothesized model. This has enhanced the quality of estimated parameters and provided statistically more convincing results (Bollen, 1989). We believe that this methodical framework can also be used to discover the influential factors of investment inclination and then estimate the predictors of stock market investments in other developing countries with similar socioeconomic contexts.

#### Conclusions

This study investigates the motivating factors of existing and potential stock market investors in countries with similar sociocultural backgrounds. This study emphasized the importance of individual characteristics affecting the propensity to participate in stock markets and documented the association between investment inclination and actual SMP. Moreover, we explored the significance and estimated the impact of the role played by the *enterprising personality*, as a mediator between the investment inclination and individual characteristics such as intuition, knowledge and education, and sociocultural norms. Further, this study revealed that maturity represented by age plays a vital role in inclining investors towards SMP. Overall, this study not only incorporated many influential individual characteristics into the research model an showed their impact on investment inclination, but also revealed the impact of such investment inclinations on actual SMP.

The findings will be useful for financial service providers, mainly stock brokers, who need to attract more clients by designing educational programs to match different levels of maturity and knowledge and education. For regulators, the findings are useful for creating awareness and promotional programs to enhance enterprising personality qualities amongst the general public. The findings also suggest that having a positive attitude towards the SPX is important if people are to participate in the stock market, and those attitudes, beliefs and perceptions might have to be inculcated from an early age through high school curriculums and mass awareness programs.

## Suggestions

The present study has several limitations. First, the sample size is relatively small; it would need to be larger to yield more statistical power. Second, respondents with more diverse backgrounds and from diverse geographical areas would have increased the generalizability of the study findings. Third, greater numbers of questionnaire items would have produced higher reliability of factors reflecting different dimensions. Future studies should test this theoretical framework with a larger and more diverse sample, and with a more comprehensive instrument. This research can also be taken further by studying the causal or mutually integrative relationship between SMP and SMD for future research.

Despite these limitations, the current study enhanced our knowledge about the assessment of investment intention and its underpinning influential factors in the Fijian context. The study findings indicated diverse influences of intuition, knowledge and education, and socio-cultural norms on *investment inclination* through *enterprising personality* which directly influence *investment inclination* towards investment behavior (*stock market participation*) in the South Pacific Stock market Further, there was also evidence that individuals' maturity (the age factor) has a direct effect on triggering *stock market participation*.

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# References

- Abreu, M., & Mendes, V. (2010). Financial literacy and portfolio diversification. *Quantitative Finance*, *10*(5), 515–528. https://doi.org/10.1080/ 14697680902878105
- Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179– 211. https://doi.org/10.1016/0749-5978(91)90020-T
- Akhtar, F., & Das, N. (2019). Predictors of investment intention in Indian stock markets. *International Journal of Bank Marketing*, 37(1), 97–119. https:// doi.org/10.1108/IJBM-08-2017-0167
- Analytics Calculator. (2019). Structural Equation Model sample size calculator. https://www.analyticscalculators.com/ calculator.aspx?id=89
- Antonovsky, A. (1979). *Health, stress, and coping* (1<sup>st</sup> ed.). Jossey-Bass.
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A metaanalytic review. *British Journal of Social Psychology*, 40(4), 471–499. https:// doi.org/10.1348/014466601164939
- Bandura, A. (1992). Exercise of personal agency through the self-efficacy mechanism. In R. Schwarzer (Ed.), Self-efficacy: Thought control of action (pp. 3–38). Hemisphere Publishing.
- Barber, B. M., & Odean, T. (2013). *The behavior* of individual investors. In G.M. Constantinides, M. Harris, & R. M. Stulz (Eds.), *Handbook of the economics of* finance (Vol 2, pp. 1533–1570). Elsevier. https://doi.org/10.1016/B978-0-44-459406-8.00022-6
- Beatty, D. L., Kamarck, T. W., Matthews, K. A., & Shiffman, S. (2011). Childhood socioeconomic status is associated with psychosocial resources in African Americans: The Pittsburgh healthy heart project. *Health Psychology*, *30*(4), 472– 480. https://doi.org/10.1037/a0024304

- Bollen, K. A. (1989). Structural equations with latent variables. John Wiley & Sons. https://doi.org/10.1002/ 9781118619179
- Brown, J. R., Ivkoviæ, Z., Smith, P. A., & Weisbenner, S. (2008). Neighbors matter: Causal community effects and stock market participation. *The Journal of Finance*, 63(3), 1509–1531. https://doi.org/ 10.1111/j.1540-6261.2008.01364.x
- Cambridge. (2020). *Cambridge dictionary; Enterprising*. https://dictionary. cambridge. org/dictionary/english/enterprising.
- Campbell, J. Y. (2006). Household finance. *The Journal of Finance*, *61*(4), 1553–1604. https://doi.org/10.1111/j.1540-6261.2006.00883.x
- Carmines, E. G., & McIver, J. P. (1981). Analyzing models with unobserved variables: Analysis of covariance structures. In G.
  W. Bohrnstedt, & E. F. Borgatta (Eds.), Social measurement: Current issues (pp. 65–115). Sage Publications.
- Chen, J., Li, H., & Zheng, D. (2020). The impact of margin-trading and short-selling on stock price efficiency—Evidence from the fifth-round ban lift in the Chinese stock market. *The Chinese Economy*, 53(3), 265–284. https://doi.org/ 10.1080/10971475.2020.1721017
- Chun, W. & Ming, L. (2009). Investor behaviour and decision-making style: A Malaysian perspective. *Bankers Journal Malaysia*, *133*(3), 3-13. www.ibbm.org.my/v2/ wpcontent/uploads/2011/06/ BJM\_Investor\_133.pdf
- Cillo, P., Griffith, D. A., & Rubera, G. (2018). The new product portfolio innovativenessstock returns relationship: The Role of Large Individual Investors' culture. *Journal of Marketing*, 82(6), 49–70. h ttps://doi.org/10.1177/ 0022242918805405
- Clark-Murphy, M., & Soutar, G. N. (2004). What individual investors value: Some Australian evidence. *Journal of Economic Psychology*,

25(4), 539–555. https://doi.org/10.1016/ S0167-4870(03)00056-4

- Cuong, P. K., & Jian, Z. (2014). Factors influencing individual investors' behavior: An empirical study of the Vietnamese stock market. *American Journal of Business.and Management*, 3(2), 77–94. https://doi.org/10.11634/ 216796061706527
- de Houwer, J., Teige-Mocigemba, S., Spruyt, A., & Moors, A. (2009). Implicit measures: A normative analysis and review. *Psychological Bulletin*, 135(3), 347–368. https://doi.org/10.1037/a0014211
- Durand, R. B., Newby, R., & Sanghani, J. (2008). An intimate portrait of the individual investor. *Journal of Behavioral Finance*, 9(4), 193–208. https://doi.org/10.1080/ 15427560802341020
- Earlenbaugh, J., & Molyneux, B. (2009). Intuitions are inclinations to believe. *Philosophical Studies*, 145(1), 89–109. https://doi.org/ 10.1007/s11098-009-9388-4
- East, R. (1993). Investment decisions and the theory of planned behavior. *Journal of Economic Psychology*, 14(2), 337–375. https://doi.org/10.1016/0167-4870(93)90006-7
- Edmiston, K.D. & Gillett-Fisher, M. (2006). Financial education at the workplace: Evidence from a survey of Federal Reserve Bank employees. *Community Affairs Research Working Paper 2006-02*. Federal Reserve Bank of Kansas City.
- El-Wassal, K. A. (2005). Understanding the growth in emerging stock markets. Journal of Emerging Market Finance, 4(3),227–261. https://doi.org/10.1177/ 097265270500400302
- Escobari, D., & Jafarinejad, M. (2019). Investors' uncertainty and stock market risk. Journal of Behavioral Finance, 20(3), 304–315. https://doi.org/10.1080/ 15427560.2018.1506787
- Fazio, R. H., & Olson, M. A. (2003). Implicit measures in social cognition research:

Their meaning and use. *Annual Review of Psychology*, *54*(1), 297–327. https://doi.org/10.1146/annurev.psych.54.101601.145225

- Forbes, J., & Kara, S. M. (2010). Confidence mediates how investment knowledge influences investing self-efficacy. *Journal of Economic Psychology*, *31*(3), 435–443. h t t p s : / / do i . o r g / 1 0 . 1 0 1 6 / j.joep.2010.01.012
- Fufa, T., & Kim, J. (2018). Stock markets, banks, and economic growth: Evidence from more homogeneous panels. *Research in International Business and Finance, 44*, 504–517. https://doi.org/10.1016/ j.ribaf.2017.07.120
- Glöckner, A., & Betsch, T. (2008). Modeling option and strategy choices with connectionist networks: Towards an integrative model of automatic and deliberate decision making. *Judgments and Decision Making*, *3*, 215–228. https:/ /doi.org/10.2139/ssrn.1090866
- Guiso, L., & Jappelli, T. (2005). Awareness and stock market participation. *Review of Finance*, 9(4), 537–567. https://doi.org/ 10.1007/s10679-005-5000-8
- Hassan Al Tamimi, H. A., & Anood Bin Kalli, A. (2009). Financial literacy and investment decisions of UAE investors. *The Journal of Risk Finance*, *10*(5), 500–516. https:/ /doi.org/10.1108/15265940911001402
- Ho, S. Y. (2019). The macroeconomic determinants of stock market development in Malaysia: An empirical analysis. *Global Business and Economics Review*, 21(2), 174. https://doi.org/ 10.1504/GBER.2019.098083
- Ho, S.-Y. and Iyke, B.N. (2017). Determinants of stock market development: A review of the literature. *Studies in Economics and Finance, 34*(1), 143-164. https://doi.org/ 10.1108/SEF-05-2016-0111
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values.* Sage Publications.

- Hofstede, G. (2001). Culture's consequences: Comparing values, behaviors, institutions and organizations across nations (2<sup>nd</sup> ed.). Sage Publications.
- Hogarth, R. M. (2001). *Educating intuition*. University of Chicago Press.
- Hogarth, R. M., & Karelaia, N. (2007). Heuristic and linear models of judgment: Matching rules and environments. *Psychological Review*, 114(3), 733–758. https:// doi.org/10.1037/0033-295X.114.3.733
- Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* (3<sup>rd</sup> ed.). Psychological Assessment Resources.
- Hong, H., Kubik, J. D., & Stein, J. C. (2004). Social interaction and stock-market participation. *The Journal of Finance*, 59(1), 137–163. https://doi.org/ 10.1111/j.1540-6261.2004.00629.x
- Hopp, C., & Stephan, U. (2012). The influence of socio-cultural environments on the performance of nascent entrepreneurs: Community culture, motivation, selfefficacy and start-up success. Entrepreneurship and Regional Development, 24(9–10), 917–945. https://doi.org/10.1080/ 08985626.2012.742326
- Horstmann, N., Ahlgrimm, A., & Glöckner, A. (2009). How distinct are intuition and deliberation? An eye-tracking analysis of instruction-induced decision modes. *Judgements and Decision Making*, 4(5), 335–354. https://jbaron.org/journal/ 9323/jdm9323.pdf
- Hu, L. & 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
- Hunjra, A. I., Qureshi, S. A., & Riaz, L. (2016). Psychological factors and investment decision making: A confirmatory factor

analysis. Journal of Contemporary Management Sciences, 2(1), 66-81. https://www.researchgate.net/ publication/314284307

- Klapper, L., Lusardi, A., & Panos, G. A. (2013). Financial literacy and its consequences: Evidence from Russia during the financial crisis. *Journal of Banking and Finance*, 37(10), 3904–3923. https:// d o i . o r g / 1 0 . 1 0 1 6 / j.jbankfin.2013.07.014
- Kobasa, S. C. (1979). Stressful life events, personality, and health: An inquiry into hardiness. *Journal of Personality and Social Psychology*, *37*(1), 1–11. https:// doi.org/10.1037/0022-3514.37.1.1
- Kocaarslan, B. (2020). Volatility spillover between uncertainty in financial and commodity markets and Turkish stock market. Business and Economics Research Journal, 11(1), 119–129. https://doi.org/10.20409/berj.2020.239
- Korniotis, G. M., & Kumar, A. (2011). Do older investors make better investment decisions? *Review of Economics and Statistics*, 93(1), 244–265. https:// doi.org/10.1162/REST\_a\_00053
- Kumar, A. & Lim, S. S. (2007). How do decision frames influence the stock investment choices of individual investors? *EFA* 2005 Moscow Meetings. http:// dx.doi.org/10.2139/ssrn.505162
- Lusardi, A. & de Bassa Scheresberg, C. (2013). Financial literacy and high-cost borrowing in the United States. *NBER Working Papers 18969*. National Bureau of Economic Research.
- MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, 1(2), 130–149. https://doi.org/10.1037/1082-989X.1.2.130
- Martínez-Loredo, V., Cuesta, M., Lozano, L. M., Pedrosa, I. & Muñiz, J. (2008). Multifactor

implicit measures to assess enterprising personality dimensions. *Psicothema*, *30*(4), 357–363. https://doi.org/ 10.7334/psicothema2018.204

- Matadeen, J. (2019). Stock market development: An assessment of its macroeconomic and institutional determinants in Mauritius. *International Journal of Economics and Financial Issues*, 9(4), 197–202. https:// doi.org/10.32479/ijefi.8125
- McEwen, B. S., & Gianaros, P. J. (2011). Stressand allostasis-induced brain plasticity. *Annual Review of Medicine*, 62, 431–445. https://doi.org/10.1146/annurev-med-052209-100430
- Moore, S., & Gullone, E. (1996). Predicting adolescent risk behavior using a personalized cost-benefit analysis. *Journal of Youth and Adolescence, 25*(3), 343–359. https://doi.org/10.1007/ BF01537389
- Muthén, L. K., & Muthén, B. O. (2017). *Mplus:* Statistical analysis with latent variables: User's guide (Version 8). Authors.
- Navarro-González, D., Lorenzo-Seva, U., & Vigil-Colet, A. (2016). How response bias affects the factorial structure of personality self-reports. *Psicothema*, *28*(4), 465–470. https://doi.org/ 10.7334/psicothema2016.113
- Pan, L., & Mishra, V. (2018). Stock market development and economic growth: Empirical evidence from China. *Economic Modelling*, 68, 661–673. https://doi.org/10.1016/ j.econmod.2017.07.005
- Pearlin, L. I., Menaghan, E. G., Lieberman, M. A., & Mullan, J. T. (1981). The stress process. *Journal of Health and Social Behavior*, 22(4), 337. https://doi.org/10.2307/2136676
- Prasad, B. C. (2014). Why Fiji is not the "Mauritius" of the Pacific? Lessons for small island nations in the Pacific. *International Journal of Social Economics*, 41(6), 467–481. https:// doi.org/10.1108/IJSE-11-2012-0221

- Rauch, A. & Frese, M. (2007a). Born to be an entrepreneur? Revisiting the personality approach to entrepreneurship. In J. R. Baum, M. Frese, & R.J. Baron (Eds.), *The psychology of entrepreneurship* (pp. 41–65). Lawrence Erlbaum Associates Publishers.
- Rauch, A., & Frese, M. (2007b). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16(4), 353–385. https:// doi.org/10.1080/13594320701595438
- Rosenberg, M. (1979). Components of Rosenberg's self-esteem scale; Concei ving the self. Basic Books.
- Rubaltelli, E., Pasini, G., Rumiati, R., Olsen, R.A., & Slovic, P. (2010). The influence of affective reactions on investment decisions. *Journal of behavioral Finance*, 11(3), 168–176. https://doi.org/ 10.1080/15427560.2010.507409
- Saliya, C. A. (2019). Dynamics of credit decisionmaking: A taxonomy and a typological matrix. *Review of Behavioral Finance*, 12(4), 357–374. https://doi.org/ 10.1108/RBF-07-2019-0092
- Saliya, C. A. (2020). Stock market development and nexus of market liquidity: The case of Fiji. *International Journal of Economics and Finance*, 27(4), 4364-4382. https://doi.org/10.1002/ijfe.2376
- Saliya, C. A. (2021a). Conducting case study research: A concise practical guidance for management students. *International Journal of KIU*, 1–13. https://doi.org/ 10.37966/ijkiu20210127
- Saliya, C. A. (2021b). Driving forces of individual investors in stock market participation. *Review of Economics and Finance, 19,* 73–79. https://doi.org/10.55365/ 1923.x2021.19.08
- Saliya, C. A., & Jayasinghe, K. (2016). Cultural politics of enterprise lending and controls

in closely held banks. *Journal of Accounting in Emerging Economies*, 6(4),449–474. https://doi.org/10.1108/ JAEE-10-2011-0040

- Sarwar, A., & Afaf, G. (2016). A comparison between psychological and economic factors affecting individual investor's decision-making behavior. Cogent Business and Management, 3(1), 1232907. https://doi.org/10.1080/ 23311975.2016.1232907
- Scatizzi, C. (2006). Graham's long-term winning approach for enterprising and defensive investors. *AAII Journal*, *28*(3), 21–25. https://www.aaii.com/journal/article/ graham-s-long-term-winning-approachfor-enterprising-defensive-investors
- Seasholes, M. S., & Zhu, N. (2010). Individual investors and local bias. *The Journal of Finance*, 65(5), 1987–2010. https:// doi.org/10.1111/j.1540-6261.2010.01600.x
- SEM (Stock Exchange of Mauritius). (2019). *The* Stock Exchange of Mauritius annual report. https://www.stockexchan geofmauritius.com/cds/annual-reports
- Sheppard, J.A., Carroll, P., Grace, J., & Terry, M. (2002). Exploring the causes of comparative optimism. *Psychologica Belgica*, 42(1-2), 65–98. https://doi.org/ 10.5334/pb.986
- SPSE (South Pacific Stock Exchange). (2018). South Pacific Stock Exchange annual report 2018. https:// www.spse.com.fj/about-spse/spseannual-renports.aspx.
- Thornton, P. H., Ribeiro-Soriano, D., & Urbano, D. (2011). Socio-cultural factors and entrepreneurial activity. *International Small Business Journal: Researching Entrepreneurship*, 29(2), 105–118. https://doi.org/10.1177/ 0266242610391930
- Vasile, C. (2018). An analysis of self-esteem variation related to social and

enterprising personality type at the third age. *Journal of Educational Sciences and Psychology*, 8(1), 103–108. http:// j e s p . u p g - p l o i e s t i . r o / index.php?option=com\_phocadow nload&view=file&id=498:an-analysis-ofself-esteem-variation-related-to-socialand-enterprising-personality-type-atthe-third-age&Itemid=16

- Wang, A. (2009). Interplay of investors' financial knowledge and risk taking. *Journal of Behavioral Finance, 10*(4), 204–213. https://doi.org/10.1080/ 15427560903369292
- Wickrama, K. A. S., O'Neal, C. W., Lee, T. K., & Wickrama, T. (2015). Early socioeconomic adversity, youth positive development, and young adults' cardiometabolic disease risk. *Health Psychology*, 34(9), 905–914. https:// doi.org/10.1037/hea0000208
- Wilder, R. L. (1967). The role of intuition. *Science*, 156(3775), 605–610. https://doi.org/ 10.1126/science.156.3775.605
- Yartey, C. A. (2010). The institutional and macroeconomic determinants of stock market development in emerging economies. *Applied Financial Economics*, 20(21), 1615–1625. https://doi.org/ 10.1080/09603107.2010.522519
- Yurttadur, M., & Ozcelik, H. (2019). Evaluation of the financial investment preferences of individual investors from behavioral finance: The case of Istanbul. *Procedia Computer Science*, *158*, 761–765. https:/ /doi.org/10.1016/j.procs.2019.09.112
- Zulaifah, E. (2005). Enterprising personality and uncertainty tolerance. *Psikologika: Jurnal Pemikiran dan Penelitian Psikologi, 19*(10), 7–15. https://doi.org/ 10.13140/RG2.2.32899.40489

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