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Financial Decision under Uncertainty: Lessons from Indonesian Millennial

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Abstract

Financial decision under uncertain event is relatively tough not only for individual but also government and business owner. It impacts the individual welfare and other critical aspects. This paper attempts to examine millennial financial behavior in order to promote better understanding in facing uncertain event and conduct better risk mitigation. This study analyzed millennial financial decision by involving 2270 respondents. The result reveals that social influence, personality traits, financial literacy, and perceived risk provide strong relationship on millennial financial decision which present important implication for both academics and decision makers.

Keywords

Social Influence, Personality, Risk, Financial Decision.
JEL Classification: G4, E2, G2.

Introduction

The US-China trade war tension which was started in 2018 potentially cut the global economy growth and worsen by the coronavirus pandemic in the beginning of 2020. The first case of coronavirus was detected in China and has already infected more than 14.000.000 people in more than 200 countries. According to International Labor Organization (2020), the pandemic impacted the economy and labor market which result on supply-demand disruption. The spread of coronavirus made every countries faces great challenges to survive. Moreover, in order to slowing the spread, many countries implement several restriction policy such as factory closure, travel bans, lockdown, border closure, etc. which directly impact on business activities. The threat of bankruptcy, especially for Small & Medium Enterprises, and job losses are difficult to handle.

The global stock markets suffered due to the investors negative sentiment. London's FSTE and Dow Jones Industrial Aveage experienced the biggest loss since 1987, dropped

25% and 23% respectively, while the S&P 500 dropped 20% during the first quarter of 2020 (www.bbc.com, 2020). Many investors respond the pandemic with fear and panic selling that drive the recent turmoil in the stock market. Indonesia stock market also experienced quite big drops this year with halted trading for several times due to the stock market fell more than 5% as a response of investors fear. An uncertainty event due to Covid-19 is both challange and obstacle for society.

Individual, basically will respond differently to every challenges, especially related to risk since uncertainty is an unavoidable event that impact on individual decision making process. A rational approach can turn to be an emotional way when dealing with the uncertainty event. In general, there are several steps related to ratioanl decision making process, such as: establish goals, identify alternatives, make an evaluation among alternatives, and the last is decision process (Schultz & et. al., 2010). During uncertainty, the decision making are more complex and riskier because of the unpredictable outcome that may result in potential loss. The purpose of this study is to provide an insight related to Indonesian millennial financial decision during uncertainty which is analyzed by social influence, personality perspectives, financial literacy, and individual perceived risk.

During uncertainty, individual decision making becomes more complex. Classical finance suggested that individual are relatively rational and preserve their welfare. However, the behavioral finance proposed in a different perspective which suggested that individual tend to be less rational and sometime behave emotionally in financial decision. In general, every countries perform different result in financial products decision. For instance, bank lending contributes for 47% of overall financing in Asia, while it is only account for 22% of total financing in US (Sheng, Ng, & Edelmann, 2013). According to Asian Development Bank (2017), there is a wide range of financial inclusion gap among Asian, it consists of formal supply and demand of financial services that can be classified by four indicators: payment and transfer, saving, credit, and insurance. Moreover, related to risk management strategy, insurance penetration is relatively low among south east Asia emerging countries. It accounts for 4% in Philippines, and only 1% in Indonesia. Saving account still becomes the most favorite financial product in Indonesia which account for 78.5% in 2013 (Asian Development Bank Institute, 2014).

Basically, individual prefer to play safe and become as “risk averse” type during uncertainty and may reflect their financial behavior in facing risk. However, individual decision making during uncertainty also determined by the social influence, including culture and reference group. Social influence basically influence individual behavior as a result of cognitive process and social construction and it can be examined by culture and reference group. For instance, the social influence aspect can be represented by response of Indonesian and people around the world in facing Covid-19 pandemic. Moreover, social influence including culture represents individual beliefs, attitudes, and the way of life across the nation. Usually, people in the same counry or region share the similar value, while, reference group can be explained as a form of reference or comparison to individual related to value, belief, and behavior (Shibutani, 1955), such as family habit in managing money, peers behavior, information from social media which is suggested by the celebrity, etc.

Indonesia, is one of the most populated country with more than 17.000 islands and 300 ethnic groups. Most Indonesian describe themsleves locally due to the wide range of diversity (ethnic, history, religion, and language in every province) before nationally. Moreover, Indonesian also consider the important of family, friendliness, avoid confrontation, speak and interact carefully. They usually respect the elders experience and follow their suggestion (Diversicare, 2012). Culture, risk, and behavior begin with the concept of “total knowledge” basically help society to understand the priority of risk that they might face (Douglas & Wildavsky, 1982). According to cultural theory, individual judgement related to risk is part of social process, it is shaped by the nature of social value (Tansey & O'riordan, 1999).

Theory of finance suggested that financial decision is not perfectly rational and influenced by human emotion and cognitive error. Psychological aspect integrates the finance theory in better understanding the decision making process under the risk (Bortoli & et. al., 2019). Basically, the psychological aspecsts can be examined by considering individual personality which can be described as pattern of thought, feeling and behavior that identifies individual uniqueness (Phares, 1991). Personality traits of individual are directly associated to styles of processing information and impulse control. In dealing with uncertainty event, individual might become emotianally unstable, unsecure, more independent in decision making process or vice versa. Personality is critical factor that influence individual perceived risk and decision making since it is a set of environmental experience, emotion, mood, and cognitive process. Big five model provides an explanation of general personality traits which examined by the level of individual extraversion, agreeableness, neuriticism, conscientiousness, and openness (Costa & McCrae, 1989).

Financial literacy is one of government and financial institution priority policy since the financial literacy enhancement will result on individual stability while the lack of financial literacy may lead to inappropriate financial decision (Saputro & Lestari, 2019).

During covid-19, there are many issues related to impact of the pandemic, especially related to the high number of unemployment rate. The low rate of individual financial literacy could be shown by their financial planning practices especially in facing uncertainty condition. Moreover, some news even mentioned that many Indonesian who possess relatively high salary did not implement financial planning properly and threatened with bankruptcy when they were laid off during Covid-19 pandemic.

According to Otoritas Jasa Keuangan (2017) Indonesian financial literacy experienced a slight increase from 21.84% in 2013 and 29.66% in 2016. Financial literacy basically describes individuals understanding related to financial concept, and capability in managing money which result on appropriate financial decision (Askar, Ouattara, & Zhang, 2020). The better financial literacy also help poor individual to be more aware of financial issue, make better decision, and develop financial strategies (Cohen & Nelson, 2011). Moreover, financial literacy affects financial behavior from intrinsic factor which can motivates individual to be more financially educated and wiser in financial decision making. Other important aspect in explaining financial behavior is individual perceived risk. It describes individual perception during the decision making process (Bairagi & Chakraborty, 2018). Moreover, it is expected that individual with high level of risk perception will behave more careful prior decision making and vice versa.

This study aims to provide additional contribution by extending the individual financial decision during uncertainty. Firstly, Indonesian millennial possess unique characteristic who may response differently compare to other individual. Secondly, Indonesian culture has shaped normative beliefs and social norms that may influence individual perception and financial decision. Lastly, the level of Indonesian financial literacy is important aspect to be examined. This paper is arrenged as follows. Section 2 describes the literature review. The next section explains research methodology, while section 4 provides result and discussion, and the last section illustrate the concluding remarks of this study.

Literature Review

Behavioural Finance

Behavioral finance, can be defined as the implementation of psychology to finance. Basically, behavioral finance examines the individual investor behavior to market-level outcome. According to Pompian (2006), behavioral finance can be devided into two subtopics: 1). Behavioral Finance Micro (BFMI), which examines behaviors or biases of individual investors that distinguish from the rational investors, 2). Behavioral Finance Macro (BFMA) describes anomalies in the efficient market hypothesis. Behavioral finance is a study related to psychological influence, financial implication and the effect on market. The finance theory explained that investors have difficulty in making financial decision, well-informed, careful, and consistent. Moreover, the traditional theory suggested that investors are confidence in decision making and not swayed by their emotions, but the modern theory observed that they also bahave according to the their emotions (Byrne & Utkus, 2013).

According to behavioral finance perspective, psychological aspects play critical role in financial decision making. Tversky & Kahneman (1973) explore the judgmental heuristic related to how individuals evaluate the probability of event, especially under the uncertainty events. Decision making usually performed by the ease of problem solving with relevant issues. There are three individuals characteristics when making judgement under the unpredictibility conditions, such as representativeness, availability, anchoring and adjustment. Behavioral finance attempts to explain the biases, heuristics, and inefficiencies in financial markets since in the 1980's. The finance study, basically focus on the idea of "efficient markets", which means: different things to different people, EMH stated that all assets and securities price reflect all the available information, EMH also includes the law of one price. According to the bubbles stock market phenomenon, it is difficult to find 100% rational investors, and they will act differently in order to response the financial events. Moreover, the incompatibility of traditional finance theory leads to the creation of new finance field named "behavioral finance" (Hammond, 2015). The uniqueness of behavioral finance is the integration of many different studies, fields and theories, it is combination from wide range of discplines. Behavioral finance attempts to explain and increase the understanding of the reasoning patterns of investors decision making, including the emotional process (Ricciardi & Simon, 2000).

Mental Accounting and Prospect Theory

Mental accounting is a set of cognitive operations to organize, evaluate, and track the financial activities (Thaler, 1999). Basically, individuals will define their problem prior to decision making. When they have already found problem to be solved, they will evaluate alternatives to tackle the problem. In evaluating process, individuals tend to perceive between cost and benefit that they will receive. The consistency of their study with mental accounting theory. Investors will evaluate investment alternatives prior to investment decision making. The most common evaluation is comparing between risk and return of investment products. Bali (2012) documents mental accounting as individuals behavior to make income classification into separate accounts based on expenditure allocation.

Financial decision behavior always becomes interesting topic to be investigated. It is a complex decision which includes not only income and spending allocation but also emotional decision since individuals are not always rational. Prospect theory, explores the individuals behavior regarding to gain return with respect of minimum risk. It integrates both value and probability function. Moreover, Kahneman & Tversky (1979) state that prospect theory is a review of utility theory which criticise decision under the risk model. Individuals tend to be risk averse during uncertainty and evaluate the probability of investment outcome. They prefer to gain higher return in dealing with the riskier asset.

Methodology

Data and Sample

Financial decision is a complex process that influenced by several factors, and in uncertain situation, it will be more difficult for most individual in the world. This study demonstrates how social influence, personality, financial literacy, and perceived risk influence Indonesian millennial financial behavior under uncertainty. Millennnial are classified as tech-savy, family-centric, and echievement oriented (Kane, 2019). Indonesian millennial also have similar characteristic and could be described as creative, confident, and connected. They are considered to be the largest and the most potential market in Indonesia. They also prefer to implement digital payment compare to cash transaction, and information is accessed by using internet that cause them posses relatively high literation (Alvara Strategic Research, 2019). This study considers primary data as a source of information to examined Indonesian millennial financial decision which conducted by following several criteria, such as: respondents are 18-35 years old, live in Indonesia big cities (Yogyakarta, Surabaya, Jakarta, Bandung, and Semarang), familiar with banking products and other financial products, must have at least saving account and experience in operating digital finance platform. The five big cities in this study are classified as top ten regions with high regional income. Online survey was conducted to collect the appropriate data sample and there are 2270 valid data.

Survey Instrument

Variables were assessed by using several indicators that help respondents to determine the important measurement. This paper considers Assael (2001) to measure social influence variable, while personality is measured by using adapting items which is developed by Lai (2017), Mayfield, Perdue, & Wooten (2008). The items of a study by Lusardi (2008) are adapted to measure the financial literacy variable. Furthermore, perceived risk is examined by adapting several items from Diacon & Ennew (2001), while financial decision is adapted by implement several items of study by Mayfield, Perdue, & Wooten (2008).

Respondent Characteristic

Tabel 1 presents the characteristic of respondents. According to the data, 45% are male while 55% are female with the average age of respondents are 18-25 years old. Some respondents possess more than one occupation and around 48% of respondents are employee in private/ public companies, 43.35% are university students, 10.98% are housewife, while only 6.9% are entrepreneurs. Over seventy percent of respondents do not have SID (Single Investor Identification). Most of respondents spend approximately IDR 2,000,000 - IDR 5,000,000 per month. Mobile banking and ATM become the most favorite payment method to accomplish the transcation activity. However, cash is still favorite payment method instrument since it is the second largest percentage of payment which accounts for 21.01% and the use of digital finance platform is quite well known among Indonesian millennial. It is also reported that saving account still hold the largest percentage of financial products, Indonesian millennial also aware in responding uncertainty event by applied the insurance products, deposit account is also considered as favorite instutement, whereas the capital market instruments are quite popular among participants since almot 10% of respondents consider to acquire stock as financial instruments.

Table 1 Respondent Characteristics

Items	Categories	Freq	%
Gender	Male	1022	45.00%
	Female	1248	55.00%
Age (in years)	18-25	1135	50.00%
	26-30	613	27.00%
	31-35	522	23.00%
Occupation	University student	1300	43.35%
	Housewife	329	10.98%
	Entrepreneur	207	6.90%
	Employee in private/ public companies	1440	48.00%
Investor Account	Having Investor Account (SID)	604	26.59%
	Not having Investor Account (SID)	1666	73.41%
Monthly Expenditure	<2,000,000	656	28.90%
	2,000,000-5,000,000	945	41.62%
	5,000,001-10,000,000	472	20.81%
	>10,000,000	197	8.67%
The Most Frequent Payment Method	Cash	1350	21.01%
	ATM/ M-Banking	2090	32.53%
	Flash/ Brizzy, Mandiri e-money, etc.	532	8.28%
	Credit Card	532	8.28%
	Gopay,	896	13.94%
	Dana	260	4.04%
	OVO	700	10.91%
	Offline Store	65	1.01%
Financial product	Saving account	2270	56.00%
	Deposit account	387	9.67%
	Stock	387	9.67%
	Bond	53	1.33%
	Mutual Fund	267	6.67%
	Insurance	667	16.67%

Theoretical Model

To analyze Indonesia millennial financial decision, this study implemented the following model that becomes the guideline or research principle to test the hypothesis.

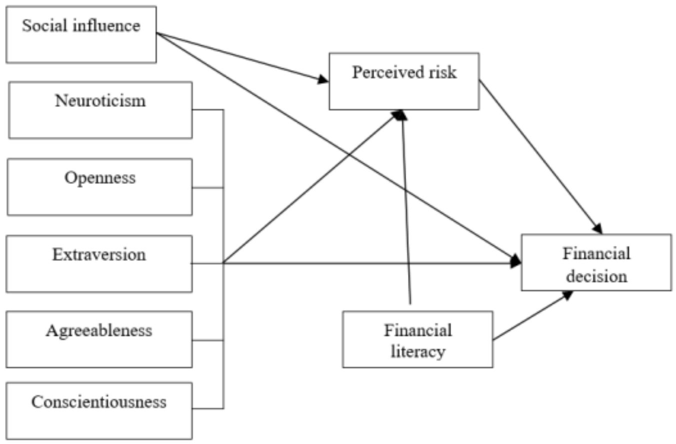

Figure 1 Theoretical Model

Results

This section comprises three subsections. We discuss several key statistical features of predictor variables in first subsection, followed by the main predictability results in second subsection. The final subsection discusses our robustness check.

Convergent Validity Evaluation

There are two types of validity test in SPLS SEM: convergent validity and discriminant validity. The convergent validity explains the set of indicators which represented by average variance extracted (AVE). Table 2 exhibits the convergent validity which is described by AVE score and it must be more than 0.5. The number basically explains the appropriate level of convergent validity and how one latent variable is able to explain more than half variance of indicators.

Table 2 Convergent Validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
SOC	0.788	0.839	0.581
OP	0.704	0.801	0.505
CONS	0.785	0.864	0.684
EXTRA	0.751	0.831	0.626
AG	0.790	0.784	0.548
NEU	0.712	0.829	0.562
FN	0.853	0.879	0.550
RISK	0.789	0.831	0.505
DEC	0.723	0.711	0.526

Discriminant Validity Evaluation

Table 3 Discriminant Validity

	SOC	OP	CONS	EXTRA	AG	NEU	FN	RISK	DEC
SOC1	0.737	0.214	0.053	0.127	0.102	0.157	0.240	0.185	-0.066
SOC2	0.762	0.177	0.113	0.269	0.069	0.280	0.103	0.359	-0.101
SOC3	0.795	-0.092	0.351	-0.055	-0.209	0.552	0.078	0.112	0.208
SOC4	0.724	-0.083	0.397	0.093	-0.065	0.498	0.159	0.233	0.167
SOC5	0.781	-0.142	-0.043	-0.143	0.028	0.091	0.003	0.295	-0.233
SOC6	0.812	0.116	0.307	0.192	0.179	0.448	0.212	0.457	0.092
SOC7	0.746	0.063	-0.094	0.048	0.105	0.102	0.103	0.279	-0.099
SOC8	0.779	0.233	-0.107	0.088	0.116	0.203	0.151	0.497	-0.022
SOC9	0.749	0.383	0.011	0.222	0.171	0.225	0.169	0.459	0.007
OP1	-0.056	0.787	0.135	0.498	0.244	0.113	0.130	0.039	0.196
OP2	0.157	0.774	0.279	0.480	0.576	0.095	0.224	0.100	0.186
OP3	0.202	0.737	0.060	0.468	0.495	0.059	0.098	0.047	0.134
OP4	0.200	0.824	0.162	0.460	0.443	0.198	0.407	0.163	0.378
CONS1	0.073	0.259	0.650	0.239	0.752	0.408	0.240	0.074	0.175
CONS2	0.176	0.196	0.908	0.271	0.773	0.659	0.190	0.389	0.394
CONS3	0.069	0.181	0.897	0.358	0.774	0.534	0.195	0.408	0.360
AG1	0.252	0.523	0.121	0.445	0.734	0.024	0.432	0.238	0.164
AG2	-0.017	0.335	0.185	0.568	0.794	0.188	0.267	0.137	0.288
AG3	0.091	0.482	0.192	0.376	0.790	0.037	0.414	0.248	0.276
NEU1	0.139	0.613	0.227	0.499	0.265	0.855	0.452	0.070	0.367
NEU2	-0.007	0.624	0.178	0.480	0.211	0.872	0.433	0.114	0.410
NEU3	-0.091	0.358	0.080	0.332	0.146	0.753	0.318	0.056	0.434
NEU4	0.302	0.279	0.327	0.183	0.278	0.735	0.458	0.372	-0.018
EXTRA1	0.183	0.622	0.212	0.833	0.620	0.201	0.364	0.198	0.387
EXTRA2	0.049	0.494	0.302	0.718	0.309	0.120	0.079	-0.045	0.093
EXTRA3	0.150	0.506	0.369	0.895	0.473	0.266	0.303	0.334	0.424
FN1	0.119	0.342	0.057	0.192	0.283	0.150	0.710	0.233	0.288
FN2	-0.044	0.136	0.145	0.038	0.013	0.166	0.811	-0.018	0.323
FN3	0.254	0.249	-0.068	0.326	0.245	0.006	0.722	0.203	0.213
FN4	0.380	0.392	-0.110	0.394	0.330	0.041	0.799	0.209	0.225
FN5	0.030	0.097	0.207	0.067	0.299	0.156	0.779	0.273	0.421
FN6	0.120	0.235	0.214	0.285	0.388	0.181	0.789	0.241	0.382
FN7	0.119	0.220	0.121	0.238	0.361	0.122	0.807	0.315	0.328
FN8	-0.055	0.206	0.154	0.109	0.253	0.024	0.774	0.049	0.182
FN9	0.021	0.168	0.059	0.129	0.325	-0.003	0.794	0.071	0.146
FN10	0.092	0.369	0.255	0.334	0.343	0.243	0.763	0.134	0.265
FN11	0.114	0.270	0.271	0.305	0.428	0.285	0.721	0.461	0.268
FN12	0.185	0.128	-0.009	0.225	0.351	0.152	0.761	0.308	0.338
FN13	0.172	0.106	0.395	0.129	0.167	0.513	0.791	0.148	0.317
FN14	0.092	0.039	0.206	0.094	0.121	0.314	0.712	0.060	0.308
RISK1	0.423	0.009	0.129	-0.165	-0.090	0.411	0.386	0.736	0.198
RISK2	0.244	-0.022	0.383	0.219	0.213	0.394	0.155	0.834	0.213
RISK3	0.337	0.057	0.437	0.281	0.350	0.504	0.183	0.808	0.256
RISK4	0.279	0.174	0.306	0.382	0.310	0.351	0.283	0.741	0.278
RISK5	0.336	0.389	0.147	0.431	0.447	0.152	0.407	0.724	0.276
RISK6	0.460	-0.121	0.321	0.026	-0.009	0.330	-0.058	0.708	-0.133
RISK7	0.098	0.066	0.179	0.190	-0.079	0.187	0.100	0.717	0.189
RISK8	0.222	0.151	-0.015	0.001	0.054	0.099	0.258	0.718	-0.056
RISK9	0.292	-0.053	0.361	0.113	0.115	0.348	0.050	0.752	0.134
RISK10	0.158	0.218	0.098	0.040	-0.053	0.165	0.213	0.758	0.072
RISK11	0.260	0.077	-0.162	-0.063	0.100	-0.072	0.236	0.724	-0.117
RISK12	0.342	0.139	0.028	0.086	0.222	0.058	0.311	0.786	0.045
RISK13	0.542	0.071	0.102	0.134	0.123	0.237	0.265	0.712	0.015
RISK14	0.308	0.144	0.281	0.272	0.118	0.387	0.302	0.710	0.278
DEC1	-0.123	0.306	0.276	0.442	0.137	0.433	0.346	0.137	0.844
DEC2	0.089	0.277	0.493	0.346	0.471	0.488	0.403	0.428	0.781
DEC3	0.023	0.149	0.429	0.295	0.271	0.537	0.405	0.388	0.790
DEC4	-0.075	0.222	-0.143	0.178	0.047	0.003	0.252	-0.228	0.784
DEC5	0.341	0.215	0.059	0.264	0.327	-0.006	0.253	0.013	0.715
DEC6	0.096	0.360	-0.146	0.218	0.148	-0.189	0.273	-0.147	0.800
DEC7	-0.014	0.285	0.015	0.178	0.088	0.199	0.264	-0.143	0.759

Basically, the quality of construct can be measured by validity and reliability test. One of validity measurement in SPLS is discriminant validity which can be measured by cross loading. Cross loading, generally informs the level of correlation among variables. Moreover, the correlation score between indicator and its latent variables must be higher than other variables. Table 3 shows the discriminant validity among variables which can be concluded that it has appropriate construct since the score is higher than 0.7 and shows the precise correlation.

Preliminary Reliability Evaluation of the Scales

Cronbach's Alpha and Composite Reliability are used to measure the internal consistency reliability. Table 4 this table reports the convergent validity output of variables. SOC is social influence, OP is openness to experience, CONS is conscientiousness, EXTRA is extraversion, AG is agreeableness, NEU is neuroticism, FN is financial literacy, RISK is perceived risk, while DEC is financial decision. Exhibits the reliability measurement which is evaluated by using Cronbach's alpha and composite reliability. Every variable shows the relatively high score of both Cronbach's alpha (> 0.6) and composite reliability (> 0.6) which indicate all variables are reliable.

Table 4 Convergent Validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
SOC	0.788	0.839	0.581
OP	0.704	0.801	0.505
CONS	0.785	0.864	0.684
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FN	0.853	0.879	0.550
RISK	0.789	0.831	0.505
DEC	0.723	0.711	0.526

Path Coefficient Result

To analyse the data, this study implements the structural equation model (SEM) which can be described by Table 5. Table 5 reports the convergent validity output of variables. SOC is social influence, OP is openness to experience, CONS is conscientiousness, EXTRA is extraversion, AG is agreeableness, NEU is neuroticism, FN is financial literacy, RISK is perceived risk, while DEC is financial decision. In general, Table 5 explains the path coefficient result which most of the hypotheses are accepted. Social influence has positive influence on financial literacy and it is supported at 1% level of significant. Social influence, such as family, peers, and spokesperson are typically affiliated to individual judgement and norm related to acceptability of particular behaviour. Peers and family norms may influence individual understanding in perceiving risk. Higher of social influence, will result on higher impact on perceived risk. Indonesian culture, that prioritize the social value and family strongly influence how individual manage and perceive risk that they will face, especially during uncertainty such as Covid-19 pandemic.

Table 5 Path Coefficient Result

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	
Dependent: RISK						
SOC -> RISK	0.430	0.428	0.050	8.556	0.000*	
OP -> RISK	-0.227	-0.227	0.036	6.397	0.000*	
CONS -> RISK	0.177	0.177	0.025	7.131	0.000*	
EXTRA -> RISK	0.103	0.104	0.055	1.871	0.062	
AG -> RISK	0.157	0.157	0.027	5.886	0.000*	
NEU -> RISK	0.178	0.178	0.031	5.748	0.000*	
FN -> RISK	0.157	0.153	0.030	5.165	0.000*	
R Square						0.509
R Square Adjusted						0.508
Dependent: DEC						
SOC -> DEC	-0.408	-0.398	0.053	7.755	0.000*	
OP -> DEC	0.082	0.084	0.028	2.881	0.004*	
CONS -> DEC	-0.144	-0.141	0.021	6.768	0.000*	
EXTRA -> DEC	0.241	0.239	0.020	11.786	0.000*	
AG -> DEC	-0.010	-0.011	0.027	0.376	0.707	
NEU -> DEC	0.638	0.629	0.034	18.798	0.000*	
FN -> DEC	0.317	0.318	0.045	7.106	0.000*	
RISK -> DEC	0.019	0.015	0.077	0.241	0.809	
R Square						0.609
R Square Adjusted						0.608

*significant at the 1% level

Society knowledge plays important part in individual perception of risk, the norm of society indirectly will shape individual judgement. Several studies indicate that information from peers, and relatives exhibit significant impact on risk taking behavior, especially related to financial risk (McIntyre & Platania, 2009). Moreover, descriptive norm, belief in others opinion and action, also drive risk perception of individuals. According to Diversicare (2012), Indonesian basically resepct their elders advice and experince which shapes their normative beliefs and decision making process including risk taking behavior. Government must understand that culture, and society knowledge will influence individual on perceived risk. It is important to improve society understanding in financial risk, and improve individual self-awareness in risk taking behavior in order to response uncertainty event, including Covid-19 impact on individual financial risk. Financial institution should provide clear information to reduce risky perception related to financial products.

Different types of individual personalities provide unique response in uncertainty situation. Openess to experience has negative impact on risk perception with statistically significant level at 1%. This finding describes that individual who are intellectually curious, novelty seeking, more creative, and eager to learn will perceive less risk in facing uncertainty events. Indonesian millennial basically posses high curiousity, eager to learn, and creative. The rapid development of technology, especially internet provide high speed of information that will benefit millennial in order to gain novelty and learn new subjects. Government should provide better ICT infrastructure to help millennial access better information, and become more educated. Financial institution also should provide detail information to society. As a result, they perceive less on risky event with better understanding and risk mitigation.

Conscientiousness is found to have positive impact on millennial perceived risk at 1% of significant level. This result is supported by Wang & et. al. (2016) that individual with high degree of conscientiusness tend to perceive high risk level and cautious to perform in uncertainty situation. Conscientiousness is individual propensity to have self-disciplined, submissive, conscious, and strive to gain achievement. They tend to engage in careful and long consideration prior to decision making, they will utilize all the information and perceive the risk, especially in risky situation. Government and society should work together to provide better information and help individual to be calm and have better perception in risky situation, especially related to individual financial risk.

One of personality traits is extraversion which implies that individual tend to be friendly, sociable, assertive, high-excitement, and enthusiastic. This study found that extraversion do not affect individual perceived risk. The result indicates that individual with high degree of extraversion hold risk perception in a low level. Extrovert person who tend to be gregarious will love to share idea and their feeling to their peers that help them to express risk perception. However, it is inconsistent with previous study by Man & Chan (2018) which implied that extraversion influence individual risk perception. It is important for individual with high level of extraversion to socialize with person who are reliable, intend to listen, and able to give proper advice, especially during the uncertainty event.

This study finds that agreeableness is positively impact on millennial perceived risk with level of significant at 1%. Agrreableness individual tend to be modest, sympathetic to others, genuine, complaint, and trust others. However, individual with high degree of agreeableness will perceived higher risk, since they are easily to accept others opinion and modest, they are careful in decision making and very considerate. It is critical to improve individual understanding related to risk mitigation and provide access of information properly to improve individual knowledge in facing risky condition.

The result shows that neuroticism has positive effect on perceived risk, it is statistically significant at 1% level. It is not supported by Man & Chan (2018) who found there is no relationship between neuroticim and perceived risk. Neuroticism is basically individual's propensity to feel depress, anger, self-consciousness, emotionally stable, and resistant to stress. This finding imply, individual with high degree of neuroticism is descibed to have negative emotions that will lead them to perceived high risk in uncertainty condition. The need to be rational, calm down, and emotionally stable will help individual to experience less perception in risky event. The easy access of information may benefit individual to share idea, enable them to collaborate, and socializing through social media platform. Positive news also help them to be more stable and secure. It is critial for government to motivate individual by providing accurate data and comprehensive explenation during uncertainty.

Advanced financial literacy may help individual to manage their money properly in facing uncertainty. This paper finds that financial literacy has positive influence on perceived risk at 1% level of signifinant. It is also supported by Aren & Canikli (2018) that perceived risk can be explained by the level of financial literacy. In general, individual with advanced financial literacy tend to be more prudent in risk taking since they possess a lot of information, able to analyze the market and economic prospect. The better financial literacy will enable individual, especially millennial to mitigate the uncertainty situation. Improve individual literacy in finance is essential for individual to allocate their financial sources in proper proporsion and be ready to deal with risky event.

Social influence still becomes critical aspect in predicting individual behavior, including individual response in dealing with risky event. Culture and social norms among society may shape individual beliefs that impact their habit. Social norms also became a strong motivators to change individual behavior, including their saving culture to prepare retirement. The result shows a negative impact of social influence on financial decision during uncertainty. The stronger of social influence may weaken the individual decision in finance, as a result of social comparison that lead to demotivating effect. A wide range of social norms may impact millennial behavior, for instance if saving not become critical aspect of social norms and habitual behavior, then it is difficult for individual to make critical financial decision, especially during risky situation. It is important for society and government to build a healthy environment to help individual decision making process.

Other important aspect that influence financial behavior is personality traits since every individual possess unique personality. Openness to experience shows positive impact on financial decision at 1% level of significant. Millennial who are creative, and curious to learn tend to make better financial decision during risky event. It can be explained that curious individual may intend to learn and make improvement from their financial experience. Uncertainty situation, basically is a cyclical event that may happen in certain period, and by the eagerness to learn, individual may save, invest, and protect better. The data availability, proper literature, and ICT infrastructure will help individual to have better financial decision to face uncertainty event, including Covid-19 pandemic.

Individual with high level of conscientiousness tend to act more disciplined, obedient, and deliberate in decision making process. According to the data, conscientiousness has negative impact on financial decision and statistically significant at 1% level. The finding implies that high degree of conscientiousness drives individual to be more careful in financial decision, especially during uncertainty. For example, they may delay the decision process, including saving and investment before proper consideration. Financial decision is a complex process and it needs to consider allocation resources, for instance low income individual may experience insufficient saving during unfavorable economic event. The availability of data, literature, and information will help individual to make proper financial decision.

The result shows that extraversion has positive effect on financial decision which is statistically significant at 1% level. It is important to note, that individual with high level of extraversion who is friendly, assertive, and easy to socialize tend to be more ready to make financial decision. However, individual still need to evaluate and analyze various financial products and conduct careful financial planning prior to financial decision making. Thus, the availability of data and financial literature also help millennial with high degree of extraversion to conduct better financial decision. Government and financial institution may help society by providing clear information, and data to help individual gain information and make better decision.

This study found, agreeableness do not impact individual financial decision. Agreeableness individual are characterized as genuine, willingess to trust other, and compliant. One important aspect of agreeableness is conflict avoidance which is essential in financial decision making, especially financial aspect in the household. Agreeabless person tend to become reliable and sometimes being forceful in their family that may demotivate individual in financial decision process. It is essential to provide detail information of financial products to reduce individual confusion in financial decision process.

Neuroticism is related to emotional feeling, which calm and emotionally stable in the positive side, while on the other hand they may feel insecure, moody, anger, and depress in the negative side. The result shows neuriticism has positive impact on financial decision making. The higher level of neuroticsm lead to better financial decision process. Individual who are emotionally stable and calm usually decide carefully, especially related to financial products decision making during risky situation. The detail of financial products information may promote better understanding and assist individual in risk mitigation.

In general, financial literacy linked into positive financial behavior and it is essential for individual to behave consistently with their financial well being. Financial literacy can be described as the sufficient skill and knowledge of finance, including financial concept, financial products, and basic mathematical formula (Greenberg & Hershfield, 2018). Financial literacy is statistically significant at 1% level and it is found that financial literacy has positive impact on individual financial decision. Thus, improving financial literacy may lead to more favorable financial outcome. Government and financial institution should create effective programs that attempt to improve individual financial literacy.

Finally, perceived risk is found to have no impact on millennial financial decision. The result is inconsistent with previous study by Saputro & Lestari (2019). Individual perception is basically a cognitive process and judgement and involve how individual perceive the financial risk according to their knowledge and experience. Perceived risk can be both rational and irrational process which include the emotional consideration. This study implies that during risky situation, most individual will have the same perception and tend to have similar response in financial decision making. Most of them will be more careful and evaluate many alternatives prior to decision making. It is important for government to promote the condusive situation and help millennial to conduct financial decision according to their risk tolerance level.

Concluding Remarks

During uncertainty, Indonesian millennial may behave differently compare to normal situation. Financial decision is unique and essential since it is subsequent event for all other activities of individual decision making. This paper aims to provide important analysis of millennial financial decision during uncertainty by examining several aspects, including social influence, personality traits (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism), financial literacy, and percieved risk. Decision making process, basically involve rational and emotional aspect. This study found that social influence plays important role in financial decision making since it has positive influence on millennial perceived risk and financial decision making in risky situation. Moreover, personality traits also provides important implication since most of personality indicators influence millennial perceived risk and financial decision during uncertainty. Financial literacy is considered as important factor that impact on millennial risk perception and financial decision in facing uncertainty, while individual perceived risk does not impact millennial decision during risky situation.

This study provides policy implication. Firstly, understanding individual financial behavior in uncertainty condition is essential to formulate government policy and business strategy, especially financial institution in dealing various events. During uncertainty, financial decision, including consumption, saving, and investment will be delayed until there is a certain situation. Government must create policy that promote individual understanding in financial decision process, such as provide important data, clear information related to financial products, and suppot the development of ICT infrastructure. Secondly, since financial decision is a complex process, firms that engaged in financial sector should consider to social influence, millennial personality, and level of financial literacy to create business strategy. Detail information in explaining their products become important to gain millennial intention. Finally, millennial should be cautious in financial decision making during uncertain period, consider the peers and relatives advice carefully, understanding their personality traits, and improve their level of financial literacy.

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PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9

PAGE 10

PAGE 11

PAGE 12

PAGE 13

PAGE 14

PAGE 15

PAGE 16

PAGE 17

PAGE 18