

Examining the impact of risk tolerance and risk aversion on the individual financial performance in the kingdom of Bahrain

Habil Slade Ogalo

Arab Open University, Bahrain

✉ drhabilslade@aou.org.bh



† Corresponding author

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ABSTRACT

With growing tougher economic conditions, everyone is struggling to safeguard their financial assets and invest them carefully. However, there are certain unavoidable risk factors that every person should be aware of since they have a potential to influence individual's financial stability. With this notion, the present study attempted to investigate how individual financial performance can be managed and enhanced. Therein, the study attempted to examine the role of risk tolerance and risk aversion factors in an individual towards its financial performance. Through sampling 450 white collar working professionals from retail and financial sectors in the kingdom of Bahrain, the present study found a significant positive relationship between risk tolerance and individual financial performance. Accordingly, the study also reported a significant positive relationship between risk aversion and financial performance. The study has contributed towards a very important topic particularly in an emerging economy like Bahrain. The study forwards implications for practice and scope for future studies based on the findings.

Contribution/ Originality

The current study attempted to investigate how individual financial performance can be managed and enhanced, also the role of risk tolerance and risk aversion factors in an individual towards its financial performance. The study has contributed towards a very important topic particularly in an emerging economy like Bahrain. The study forwards implications for practice and scope for future studies based on the findings.

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1. INTRODUCTION

In today's world, most notably in economic turbulent and financial crisis, being aware of people's perceptions and emotions before making investments, so, financial resources are taking awareness of researchers and consultants. Behavioural finance is a reasonably new discipline that in fact, strives to combine behavioural as well as intellectual psychological theory along with conventional economics and finance to further improve illustrations with regards to precisely why people in general make illogical financial choices.

Over the years, it was observed that stock investors purchase high and sell lower. Additionally, they often purchase the improper shares, offer for sale the mistaken shares and in regular days, and make totally quite a bit selling and buying. A profitable share supplies the chance to sell and secure a gain and thus the stock investors do so to obtain the amusements of the particular profit. This is can be an optimistic investments phase. Hence, stock investors hold on to such stocks in order to attempt to avoid a negative investing (Barberis and Xiong, 2012). This is not because people are unwise, they are just human beings.

Obviously, risk is an element of making investments. In general, investors may state that potential risk is precisely what differentiates saving from investment: when person invest, he accepts the risk that he will lose his money (or at least, that he will not gain money) in return for the potential of making more money than he could if his capital was building up in a savings account. This is the common-sense risk-return trade-off: the riskier an investment is, the greatest its potential return should be.

On the contrary, investments along with minimal potential risk commonly present much lower profits. Consequently, the large amount he can expect in order to make on his investments is mainly based upon just how much risk he may take on.

Some point, potential risk tolerance is a psychological concern. If the person is afraid of dropping his own earnings, he is not likely to make investments it. Nonetheless, it can be far more beneficial to come up with risk tolerance in regard to the financial results of losing his particular investment money}, or of putting his own assets in improperly implementing investments.

Successful financial planning as well as making investments are considerably more than squeezing amounts, listening to well-known financial analysts' point of view, and understanding the most current market trends. Keeping in view the prominence and vitality of the components of risk aversion and risk tolerance, the present study attempted to examine how it can make an impact on the individual financial performance.

2. LITERATURE REVIEW

2.1. Performance

The term performance refers to a wide arena that principally caters to outcome of certain efforts, strategies and courses of actions (Umrani *et al.*, 2016; Umrani *et al.*, 2018). Let it be businesses or individuals, what actually matters in all courses of life is how well is the results which in simple terms is known as performance (Bushman *et al.*, 1996; Ahmed *et al.*, 2017; Ahmed *et al.*, 2018). There is abundance of literature on the topic of performance that highlights that organizations, teams as well as individuals prefer to work on their performance in all aspects (e.g., Cross and Cummings, 2004; Sangkala *et al.*, 2016). Findings of these research entities have underlined that performance prospects are very important to ensure competitive success in the professional and personal life.

2.2. Individual financial performance

Every individual aspires to have a good financial stability and control on all the financial prospects in his/her life. Therein, it becomes very important for them that they strategically work on maximizing their asset base and availability of capital in order to ensure better financial performance at the

individual level. Individual financial performance refers to the extent to which, the person has control and is capable of making better financial decisions. For better financial performance it is necessary that the person works with intellectual discourse and character (Dalton *et al.*, 2003).

Financial performance has a high regard when it comes to individual sensibility and how it makes mature use of experience, insights and past experiences to avoid any kinds and/or forms of potential risks (Ruf *et al.*, 2001). Research has outlined that individuals who are able to manage risk are better in financial performance. Studies have outlined that individual who stress on making their financial performance well which principally caters to how they make the financial decisions pertaining to their investments and capital through avoiding risks. For example, study by Schubert *et al.* (1999) outlined that individual responsiveness in making financial decision making has a major influence from the prospects like risk aversion and tolerance. The study further suggested that there is a strong link between how well equipped and versed an individual is when it comes to avoiding all threats that could potentially end the person losing its capital or investments or liquid assets.

Consequently, potential risk and uncertainty use a big role in plenty of significant financial performance. Consequently, being aware of person's perceptions when it comes to risk is closely connected to the aim of understanding and forecasting financial behaviour and mood. The finance studies already have a pair of major approach in term of how individual investors and financial specialist procedure important information which is the standard finance academic's perception that investors create choices according to the concepts of the efficient market hypothesis. The most important behavioural finance subjects (that is, mental and emotional aspects) that may affect an investor's view of risk for different kinds of financial products and investment solutions. Considered risk (risk insight) is the personal selection process that persons engage regarding the evaluation of risk and the level of uncertainty. The concept of is most often employed in respect to risky individual actions. Based on standard financial theory, all over the world and its individuals are, in most cases, rational income maximizes. Nonetheless, there are plenty of circumstances where sentiment and mind-set affect our choices, resulting in people to perform in unexpected or illogical methods. Conventional financial concepts believe rationality behind investors' choice. Afterward it is considered by several researchers which typically Individual investor at some point make illogical choices related to their own investments (Barberis and Thaler, 2003). Different variables have influence on behaviour of investors throughout individual financial management technique. In addition to further factors investor behaviour are likewise influenced by several research studies are carried out to investigate the consequence of demographic aspects on level of potential risk tolerance in making investment decision. Because individuals have diverse ages, marital status, gender, income level, race, occupation as well as religion which exhibits several perceptions towards making a decision process, which is adverse or seeking risk.

In this context, researcher connects two different literatures on the attitude towards financial risk which are risk aversion and tolerance to attempt to view techniques on how well they complement support one another. Integration of financial tolerance and risk aversion never has been carried out before and it also can be a realistic prospect of distinct ideas into both literatures. Henceforth, it becomes important to understand how financial performance can be better managed and controlled through understanding and tackling risk factors.

2.3. Risk tolerance

Financial risk tolerance is probably one of the core factors that ought to be looked at in generating investment choices for both investment professionals as well as investors. Based on its significance, assessing and understanding risk tolerance is not an easy theme. Consequently, assessing of risk tolerance and identifying characteristics which influence risk opinions of investor has already been studied and discussed for many years. Financial risk tolerance plays significant part in generating monetary choices and in accomplishing monetary objectives. Thus, investor's risk tolerance is presumed to become main determining factor of preference behaviour in an investment circumstances

for instance, retirement plans, asset allocation, insurance and income build-up (Bailey and Kinerson, 2005).

A contemporary model for investment decision consists of four essential inputs in order to establish investment and financial plans. These inputs are; aims, time frame, financial stability, and financial risk tolerance (Grable and Lytton, 1998). First three inputs are moderately quite simple to determine. Nonetheless, risk tolerance is probably one of the most misinterpreted concepts when making investments; in addition, it is a complex rational notion.

Furthermore, each investor owns certain level of tolerance and mind-set towards risk, thus an investment deemed higher risk by first investor might be viewed as lower risk by the second. Assigning stockholders to their relevant risk tolerance classification and thus recommending the greatest applicable portfolios to the people is a vital activity for professionals and consultants.

2.4. Risk aversion

Statistically, financial risk aversion adverse risk tolerance. Risk aversion might be known as a choice for sustaining a specific degree of consuming over unclear consuming even if the predictable advantages of the unclear consuming exceeds that of the particular degree of financial stability (Finke and Huston, 2003). The concept of risk aversion exhibits the refusal to take risk. Thus, investors who are less risk aversion should have high financial risk tolerance. According to Corter and Chen (2006) found positive association between predicted profit and risk averse, since stockholders look forward to gaining more profit for having risk. Consequently, risk averse is represented on premium risk that often involves a predicted additional profit that in fact stockholders strive to get rewarded for holding risky assets. However, it may be obvious that persons differ substantially in the level investors require to get compensated for the risk of holding financial assets. Essentially, risk averse is an explanation of an investor who might, when confronted with two investments with a similar expected return (but different risks), will desire the one with the lower risk. In term of finance, managing risk is the technique of analysis, measuring and accepting uncertainty in investment choices. Primarily, managing risk happens at any time, so, fund manager attempt and analyses quantity of the potential losses in an investment which lead to take the proper action in order to demand risk tolerance.

Occupation defines as the activity in which persons in general involved for pay. Those individuals who make their own income straight from their own business, trade or career are in higher levels of risk taking compare to people with straight salary (MacCrimmon and Wehrung, 1986). Occupational status is likewise influencing the level of risk taking ability; individuals with upper ranking occupational status are usually more risk seeker as compare to low ranking occupational status. Individuals having low risk taking capability select low ranked vocations (Roszkowski *et al.*, 2005).

In fact, after Cohn *et al.* (1975), only some papers have investigated the relationship between risk aversion and self-employment, unemployment or the type of occupation (Halek and Eisenhauer, 2001; Hartog *et al.*, 2002; Lin, 2009) who stated that the self-employed class has got the lowest measure of risk aversion in comparison with clerical workers and salaried professionals. The businesses wherein he identified the highest risk aversion are Real Estate, Insurance, and Finance. The businesses with low risk aversion are trade and services.

2.5. Hypothesis testing

Based on the literature and discussion the present study attempted to examine the following hypothesis:

H1: There will be a positive relationship between Risk Tolerance and Financial Performance.

H2: There will be a positive relationship between Risk Aversion and Financial Performance.

3. METHODOLOGY

3.1. Measurements

5-item scale by [Judge et al. \(1999\)](#) was used for the present study to examine the tolerance of an individual towards financial risks. Likewise, the present study tested risk aversion from by using the 6-item scale by [Judge et al. \(1999\)](#). In accordance to this, the present study employed 6-item scale ([Kim et al., 2010](#)).

3.2. Sampling

A total of 450 white collar working professionals across the retail and financial sector in the Kingdom of Bahrain were targeted for the present study through email. The contacts were retrieved from company portals and public directories. Principally retail and financial sectors were targeted for this study. The study yielded a response of 309 out of which, 11 were discarded and hence, 298 were taken for further final data analysis and hypothesis testing. The study concluded with the response rate of 66.22 percent which is reasonably good as per the assertions of [Sekaran and Bougie \(2016\)](#).

3.3. Participants demographics

Out of the 298 respondents, 184 (62%) were male and 114 (38%) were female. In connection to the education, 187 (63%) reported to have a bachelor's degree whereas, 49 (16%) reported having masters qualification. Accordingly, 62 respondents (20%) reported to have secondary and/or Advance Diploma level qualifications. In connection to the experience, 139 (47%) reported to have more than 0-5 years of experience and 111 (37%) reported to have more than 6 to 10 years of experience and 48 (16%) mentioned having 10 to 20 years of working experience.

3.4. Data analysis and assessment

The core objective of the present study was to assess the relationship between risk aversion and risk tolerance on individual financial performance. Thus, based on the assertions of [Hair et al., 2016](#), structural equation modelling using SMART PLS 2.0 M3 ([Ringle et al., 2005](#)) was employed. Several studies recently can be traced using this approach ([Ahmed et al., 2018](#); [Ahmed et al., 2017](#); [Umrani et al., 2018](#)). As per this approach, the scholar attempted to test measurement and structural model of the study.

3.5. Measurement model

Before the test of the path coefficient to examine the relationship between risk tolerance, risk aversion and individual financial performance, the study assessed convergent validity, reliability and discriminant validity. Therein, details in Table 1 outlines that all the individual item loadings resulted higher than the acceptable threshold of 0.5 ([Chin, 1998](#)). Accordingly, the average variance extracted scores for each variable were also higher than the suggested threshold ([Bagozzi and Yi, 1988](#)). In the likewise manner, composite reliability was also found to be higher than the accepted threshold of 0.7 ([Hair et al., 2016](#)). Conclusively, the measurement model tests confirmed the convergent validity and individual item reliability.

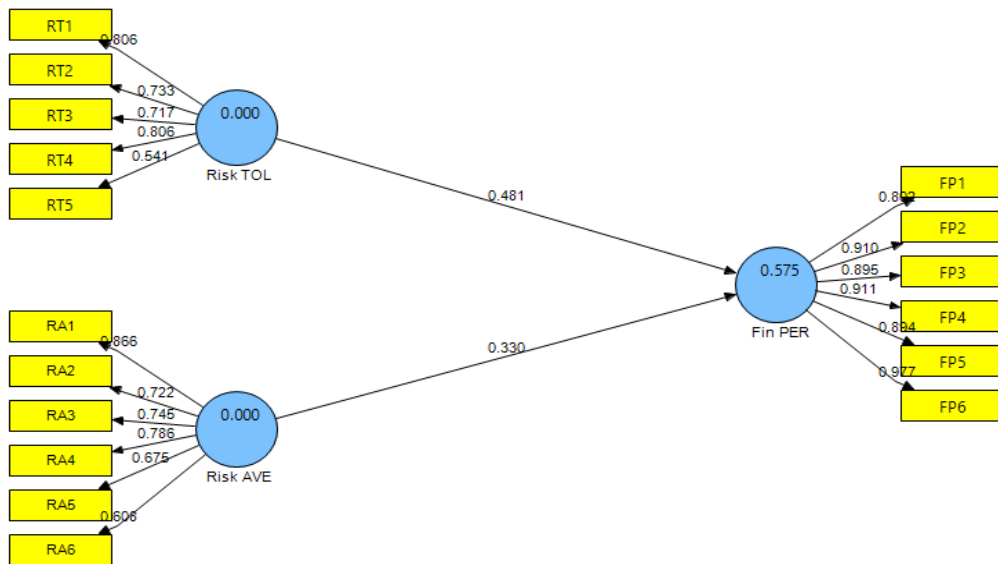


Table 1: Loading, AVE and composite reliability

Construct	Loadings	AVE	CR
Financial Performance		0.809	0.962
FP1	0.801		
FP2	0.909		
FP3	0.895		
FP4	0.910		
FP5	0.894		
FP6	0.976		
Risk Aversion		0.544	0.876
RA1	0.865		
RA2	0.722		
RA3	0.744		
RA4	0.786		
RA5	0.674		
RA6	0.607		
Risk Tolerance		0.528	0.846
RT1	0.806		
RT2	0.733		
RT3	0.716		
RT4	0.806		
RT5	0.540		

Following to this, the present study also tested the discriminant validity as per the suggestions of [Fornell and Larcker \(1981\)](#) who asserted that every AVE score's square should result in greater value than all the correlated scores. Table 2 present the results of the square root of the AVE scores of each construct whereby, all have resulted higher than the correlating values in the cross loading table hence meeting the criterion of discriminant validity.

Table 2: Discriminant validity

	Fin PER	Risk AVE	Risk TOL
Fin PER	0.8995		
Risk AVE	0.6865	0.7381	
Risk TOL	0.7254	0.7253	0.7271

Accordingly, the study also checked the cross loadings for each of the individual item and found to be sufficiently higher than the cross-loadings thus demonstrating adequate discriminant validity. Details of this can be referred from table 3.

Table 3: Cross loadings

	Financial Performance	Risk Aversion	Risk Tolerance
FP1	0.802	0.587	0.646
FP2	0.910	0.697	0.644
FP3	0.895	0.635	0.725
FP4	0.911	0.600	0.590
FP5	0.894	0.538	0.582
FP6	0.977	0.629	0.706
RA1	0.590	0.866	0.556
RA2	0.331	0.722	0.335
RA3	0.416	0.745	0.582
RA4	0.754	0.786	0.856
RA5	0.318	0.675	0.304
RA6	0.368	0.608	0.342
RT1	0.719	0.602	0.806
RT2	0.323	0.396	0.733
RT3	0.543	0.459	0.717
RT4	0.539	0.543	0.806
RT5	0.346	0.730	0.541

3.6. Structural model assessment

Upon the successful assessment of the measurement model, the present study applied the bootstrapping procedures to test the significance of the path coefficient. Based on the guided procedures of prominent scholars (Hair *et al.*, 2016), 500 boot straps samples on 289 samples were applied results of which can be tracked from Figure 2 and Table 4.

Results pertaining to the path coefficients reported a significant relationship between risk tolerance and individual financial performance ($\beta=0.480$; $t=11.872$; $p<0.000$) thus supporting hypothesis 1. The findings are parallel to notable assertions from past studies claiming a significant contribution of risk tolerance and financial performance of individuals. Accordingly, the study also reported significant positive relationship between risk aversion and financial performance of an individual ($\beta=0.3302$; $t=8.172$; $p<0.000$) henceforth supporting hypothesis two as well.

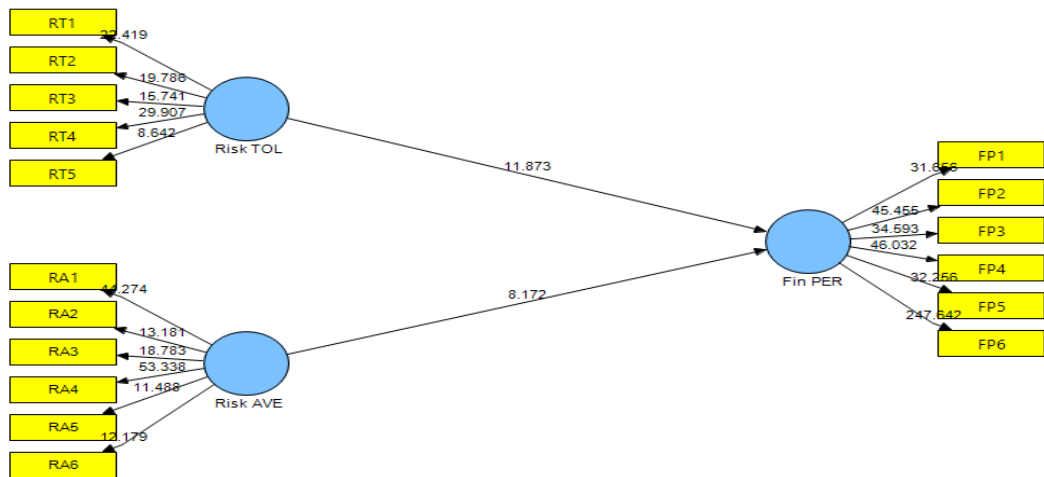


Figure 2: Structural model

Table 4: Structural model results

Hypothesis	Beta	Std Deviation	Std Error	t Value	Decision
H1: Risk TOL -> Fin PER	0.480	0.040	0.040	11.872	Supported
H2: Risk AVE -> Fin PER	0.330	0.040	0.040	8.172	Supported

4. DISCUSSION

A lot has been reported and written about the fact that before investing in market share or equity related products one needs to figure out one’s taking risks capability, or in other words risk tolerance levels. The aim of the study was to examine the role and relationship between risk tolerance, risk aversion and financial performance of individuals. The study has landed support towards both of the hypothesized relationship outlining that individual effective in handling risk which asserts to the extent to which an individual can withstand the variability in the investment returns and is willing to handle swings when it comes to its financial performance. The findings are parallel to past studies like [Bajtelsmit and Bernasek \(1996\)](#) that reported similar evidences. The findings in a way underline the importance of individuals being able to tolerate the ups and downs when it comes to handling financial matters particularly with regards to investments and capital developments.

Men as investors are more confident within their investment choices and usually have far more financial information, wealth and capability to bear risks ([Barber and Odean, 2001](#)). When the males are investing in their assets because of large income they require higher risks. However, there are studies available suggesting contrary results, suggesting no significant influence of gender relating to risk tolerance throughout financial choices ([Schubert et al., 1999](#)).

Accordingly, the present study also reported strong relationship between the idea of risk aversion and financial performance of individuals. The results conclusively suggest that individuals who are careful in risk and therefore attempt to avoid getting into troublesome financial activities to the max are better in enhancing their financial performance. Risk averse investors usually tend to opt for safe investment products, while the latter could be much keener to obtain portion of their investment portfolio. Henceforth, such individuals may be willing to go for even small returns but they do the planning for their financials very carefully. Importantly, since there were many females as respondents, past studies suggest that they are more conservative and risk averse. Significant findings of the present study also indicate towards the role and importance of education. Past studies have underlined those individuals

who are more educated academically are better in tolerating and averting risk when it comes to financial planning for responsive financial performance (e.g., [Graham et al., 2002](#); [Haliassos and Bertaut, 1995](#)). However, there are also studies suggesting that being able to tolerate and avert risk has nothing to do with the education and people who are not well educated may also be good in such course of their life (e.g., [Christiansen et al., 2006](#); [Al-Ajmi, 2008](#)).

4.1. Implications for practice

The study has forwarded notable implications for theory and practice. The study has underlined solid connection between risk tolerance, risk aversion and individual financial performance. The study has highlighted that people who are better in tolerating and averting risk would be more efficient in financial performance. Therein, training can play a major role in enhancing individual's awareness and understanding of different financial risks and how they can be controlled for better financial performance at the individual level. Accordingly, the findings also suggest that people may look into enhancing the various prospects of financial investments whereby, they can potentially avert the risk in order to ensure they are better at handling it. The study findings also implies that it is necessary for people who have strong individual family backgrounds, status, and position and wellbeing prospects to facilitate themselves with responsive investment decisions. Accordingly, there is also a need for people to understand investment criticalities, prior to engaging in any such activities. At the societal level, investment based institutions, financial enterprises and other seasoned entities in the feature can be approached to help in making effective investment decisions. Moreover, such prospects can also provide a considerable support in terms of educating and providing experience through overcoming demographic limitations with regards to effective investment decision making. The findings also implies individuals to consult financial managers and consultants to help them get a better understanding of the potential risks in the financial markets and how to avoid them especially when they are investing in order to ensure that they are knowledgeable to manage their financial performance.

4.2. Limitations and scope for further studies

Despite the fact that there are considerable findings from the present study, it is important to outline some of the critical limitations of the study for future scholars to keep in view whilst planning scholarly work on the same topic. At first, the present study only investigated the role and impact of risk tolerance and aversion across retail and financial sector employees thus, limiting the causal inferences of the findings. Therefore, future studies may attempt to look into testing the same relationships in other workplaces and occupational settings. Moreover, study was also limited in terms of the number of respondents and test of these relationships in other work sectors with larger sample size may help us gain better understanding of these elements and their impact on financial performance. Likewise, since some past studies have reported that there is a great deal of impact and influence of demographic characteristics pertaining to their focus towards risk tolerance and aversion hence future studies may try and attempt to look into how. Accordingly, scholars may attempt to study how risk factors along with other elements can make an impact on the financial performance of individuals. Since the present study only on the risk factors to outline its impact on individual financial performance therefore, future studies may attempt to look into the various prospects with regards to their impact on financial performance.

The study also reported some unsettled concerns with regards to the consideration of risk tolerance/aversion henceforth; strengthening risks behaviour is important for investors. Even so, for something so essential to the risk management function, risk tolerance is seldom engrained in risk management processes and structures. This is because the notion of risk tolerance is quite challenging, and the nomenclature is certainly not utilized constantly along the field. It is also important to understand that one's risk aversion impacts these life-style choices. For one example, marriage raises one's risk aversion, but also, more risk averse persons opt get married ([Halek and Eisenhauer, 2001](#)). In several other research studies, the relationship between risk aversion and marital status or family size is not like obvious. Therefore, future scholars may strive to look into these domains as well.

5. CONCLUSION

The present study concluded with significant results from the retail and financials sectors of kingdom of Bahrain. Therein, the study found that risk tolerance and risk aversion can make a significant impact on the individual financial performance. The study has reported considerable aspects that can help us understand the role and potential influence of risk factors whilst educating working professionals to realize how they can make a better financial performance through becoming risk aware.

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References

- Ahmed, U., Khalid, N., Ammar, A., & Shah, M. H. (2017). Assessing moderation of employee engagement on the relationship between work discretion, job clarity and business performance in the banking sector of Pakistan. *Asian Economic and Financial Review*, 7(12), 1197-1210. DOI: 10.18488/journal.aefr.2017.712.1197.1210
- Ahmed, U., Shah, S. A., Qureshi, M. A., Shah, M. H., & Khuwaja, F. M. (2018). Nurturing innovation performance through corporate entrepreneurship: the moderation of employee engagement. *Studies in Business and Economics*, 13(2), 20-30. DOI: 10.2478/sbe-2018-0017
- Al-Ajmi, J. Y. (2008). Risk Tolerance of individual investors in an emerging market. *International Research Journal of Finance and Economics*, 17, 15-26.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94.
- Bailey, J. J., & Kinerson, C. (2005). Regret avoidance and risk tolerance. *Journal of Financial Counselling and Planning*, 16(1), 23-28.
- Bajtelsmit, V., & Bernaseck, A. (1996). Why do women invest differently than men? *Financial Counselling and Planning*, 7(1), 1-10. DOI: 10.2139/ssrn.2238
- Barber, B., & Odean, T. (2001). Boys will be boys: gender, overconfidence, and common stock investment. *Quarterly Journal of Economics*, 116(1), 261-292. DOI: 10.2139/ssrn.139415.
- Barberis, N., & Thaler, R. (2003). A survey of behavioral finance. *Handbook of the Economics of Finance*, 1, 1053-1128. DOI: 10.3386/w9222.
- Barberis, N., & Xiong, W. (2012). Realization utility. *Journal of Financial Economics*, 104(2), 251-271.
- Bushman, R. M., Indjejikian, R. J., & Smith, A. (1996). CEO compensation: The role of individual performance evaluation. *Journal of Accounting and Economics*, 21(2), 161-193. DOI: 10.1016/0165-4101(95)00416-5.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research*, 295(2), 295-336.
- Christiansen, C., Joensen, J. S., & Rangvid, J. (2006). Gender, marriage, and the decision to invest in stocks and bonds: do single women invest more in less risky assets? November 29, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=948164.
- Cohn, R. A., Lewellen, W. G., Lease, R. C., & Schlarbaum, G. G. (1975). Individual investor risk aversion and investment portfolio composition. *Journal of Finance*, 30(2), 605-620. DOI: 10.1111/j.1540-6261.1975.tb01834.x.
- Cortier, J. E., & Chen, Y. J. (2006). Do investment risk tolerance attitudes predict portfolio risk? *Journal of Business and Psychology*, 20(3), 369-381. DOI: 10.1007/s10869-005-9010-5.
- Cross, R., & Cummings, J. N. (2004). Tie and network correlates of individual performance in knowledge-intensive work. *Academy of Management Journal*, 47(6), 928-937. DOI: 10.5465/20159632.

- Dalton, D. R., Daily, C. M., Certo, S. T., & Roengpitya, R. (2003). Meta-analyses of financial performance and equity: fusion or confusion? *Academy of Management Journal*, 46(1), 13-26. DOI: 10.5465/30040673.
- Finke, M. S., & Huston, S. J. (2003). The brighter side of financial risk: Financial risk tolerance and wealth. *Journal of Family and Economic Issues*, 24(3), 233-256.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 1, 39-50. DOI: 10.2307/3151335.
- Grable, J., & Lytton, R. (1998). Investor risk tolerance: Testing the efficacy of demographics as differentiating and classifying factors. *Financial Counselling and Planning*, 9(1), 61-73.
- Graham, J. F., Stendardi Jr, E. J., Myers, J. K., & Graham, M. J. (2002). Gender differences in investment strategies: an information processing perspective. *International Journal of Bank Marketing*, 20(1), 17-26.
- Hair, Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications. DOI: 10.1080/1743727x.2015.1005806.
- Halek, M., & Eisenhauer, J. G. (2001). Demography of risk aversion. *Journal of Risk and Insurance* 68(1), 1-24. DOI: 10.2307/2678130.
- Haliassos, M., & Bertaut, C. C. (1995). Why do so few hold stocks? *The Economic Journal*, 105(432), 1110-1129. DOI: 10.2307/2235407.
- Hartog, J., Ferrer-i-Carbonell, A., & Jonker, N. (2002). Linking measured of risk aversion to individual characteristics. *Kyklos*, 55(1), 3-26. DOI: 10.1111/1467-6435.00175.
- Judge, T. A., Thoresen, C. J., Pucik, V., & Welbourne, T. M. (1999). Managerial coping with organizational change: A dispositional perspective. *Journal of Applied Psychology*, 84(1), 107-122. DOI: 10.1037/0021-9010.84.1.107.
- Kim, G., Shin, B., & Grover, V. (2010). Research note: Investigating two contradictory views of formative measurement in information systems research. *MIS Quarterly*, 34(2), 345-365. DOI: 10.2307/20721431.
- Lin, F. T. (2009). Does the risk aversion vary with different background risk of households?. *International Research Journal of Finance and Economics*, 34, 69-82.
- MacCrimmon, K. R., & Wehrung, D. A. (1986). *Taking risks: The management of Uncertainty*. New York and London: The Free Press. DOI: 10.2307/252869.
- Ringle, C. M., Wende, S., & Will, S. (2005). *SmartPLS 2.0 (M3) Beta*. Hamburg 2005.
- Roszkowski, M. J., Davey G., & Grable, J. E. (2005). Insights from psychology and psychometrics on measuring risk tolerance. *Journal of Financial Planning*, 18(4), 66-75.
- Ruf, B. M., Muralidhar, K., Brown, R. M., Janney, J. J., & Paul, K. (2001). An empirical investigation of the relationship between change in corporate social performance and financial performance: A stakeholder theory perspective. *Journal of Business Ethics*, 32(2), 143-156.
- Sangkala, M., Ahmed, U., & Pahi, M. H. (2016). Empirical investigating on the role of supervisor support, job clarity, employee training and performance appraisal in addressing job satisfaction of nurses. *International Business Management*, 10(23), 5481-5486.
- Schubert, R., Brown, M., Gysler, M., & Brachinger, H. W. (1999). Financial decision-making: are women really more risk-averse?. *American Economic Review*, 89(2), 381-385. DOI: 10.1257/aer.89.2.381.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons. DOI: 10.1016/0024-6301(93)90168-f.
- Umrani, W. A., Kura, K. M., & Ahmed, U. (2018). Corporate entrepreneurship and business performance: the moderating role of organizational culture in selected banks in Pakistan. *PSU Research Review*, 2(1), 59-80. DOI: 10.1108/prr-12-2016-0011.
- Umrani, W. A., Mahmood, R., & Ahmed, U. (2016). Unveiling the direct effect of corporate entrepreneurship's dimensions on the business performance: a case of big five banks in Pakistan. *Studies in Business and Economics*, 11(1), 181-195. DOI: 10.1515/sbe-2016-0015.