

# The Conceptual Perspective of the Subjective Norms Determinant of the Investors Decision-Making Behavior

AHMED K.M. MADI\* prof. Dr. Rosylin mohd yusof Othman Yeop Abdullah Graduate School of Business, University Utara Malaysia, PO box 06010, Kedah, Sintok, Malaysia

#### **Abstract**

Investors decision-making Behaviour defined as how the investors judge, predict, analyses and review the procedures for decision making, which includes investment psychology, information gathering, defining and understanding, research and analysis. In Investors Decision-making Behaviour, the Subjective Norms plays a crucial effect. Misunderstood personal characteristics within Investors Decision-making Behaviour may generate unrealistic or inaccurate outcomes. Unfortunately, the effect of personal context is nearly ignored in c literature. this paper argues on the interaction between the influence of Subjective Norms, so as to explain Investors Decision-making Behaviour. This proposition could improve understanding the Investors Decision-making Behaviour and help to resolve inconsistency of findings in the literature.

**Keywords:** Investors decision-making Behaviour; Subjective Norms; Palestine stock market.

#### INTRODUCTION

Researchers have realized the importance of taking into consideration investors' irrationality in order to understand individual investors' behaviour. Barber and Odean (2011) document how these irrational behaviours badly affect the financial well-being of individual investors. Due to the above, many theoretical models, such as Barbers, Shleifer, and Vishny (1998) or Lovric, Kaymak, and Spronk (2008) attempt to explain the implications of individual investors' irrational behaviour in the stock markets.

This study aims to understand individual investors' behaviours and with human limitations in mind, to predict individual investors' behaviours, by applying a psychological theoretical of the Subjective Norms model as an attempt to understand as well as predict both individual investors' intentions and behaviours in the stock market. Although several studies have been applied in understanding individual investor behaviour, the application of behavioural models has not been attempted seriously.

## LITERATURE REVIEW

## **Investors decision-making Behavior**

Kahneman and Tversky (1979), Shefrin and Statman (1994), Shiller (1995) and Shleifer (2000) are among the leading researchers that have exploited theories of thinking and other social sciences to shed light on the competence of financial markets and clarify many stock market irregularities, which has deeply affected the area of finance.

In this sense, the reason why social finance gain big interest is because it influenced the finance sector in a short time because of the fact that in the efficient market edge, utility-maximization is incompetent to explain many truths (Bayar, 2011). According to behavior al finance, investors do not always behave sensibly. The investigation of previous studies reveals that investors act under the effect of various emotional issues (Kharb and Malik, 2014; Ton and Dao, 2014), and how important they are for their investment decisions (İslamoğlu et al., 2015; Riaz and Hunjra, 2012).

By introducing behavior al features to the decision-making procedure, behavior al finance seeks to add to the standard theories of finance. The main method of behavior al finance is that the investors are not rational and that they are prone to influence as well as markets are not always efficient, as opposed to traditional finance (Rabin, 1998; Statman, 2014). Behavior al finance is an addition to the rational decision making model, by taking into consideration the method whether illogical or the limited rationality. (İslamoğlu et al., 2015). It seeks to understand and predict systematic financial market implications of psychological decision processes. also, it focuses on the request of emotional and economic principles for the development of financial decision-making (Olsen, 1998).

Theories of behavior al finance is a division of finance that researches the behavior of investors in the financial market and the effects of psychological factors and the resulting influence on investment choices on the market, thus affecting prices. Behavior al finance aims to explain sensibly why investors believe that markets are incompetent. Fresh theoretical work in finance recommended that different beliefs or opinions among investors might be able to explain excessive investing and high levels of investment volume (Glaser and Weber, 2007).

There are several definitions written on behavior al finance, taken from the behavior al finance school as well as from investment professionals. Shefrin (2000, p. 4) describes behavior al finance as a fast rising area which deals with the interaction and effect of psychology with the financial actions and performance of investors.



Gilovich, Griffin, and Kahneman (2002) have likened behavior al finance to behavior al economics and they have defined behavior al economics as uniting twin disciplines of psychology and economics to explain how and why people make apparently irrational or rational decisions when they invest, save, borrow and spend money. A number of studies in behavioral finance have been focused in the investors' knowledge on investment, or investment literacy and the ability to use this knowledge effectively. There are several authors, have paid interest to determine the factors that contribute of individuals' participation in the stock market considering that they lack investments or savings (Washington, Shirley, Lisset, and Regina, 2015). Policymakers and individuals (Lusardi, Mitchell, and Curto, 2010; Van Rooij, Lusardi, and Alessie, 2011) and awareness (Guiso and Jappelli, 2005). On the other hand, some studies show that social interactions influence key individuals decisions and

investment (Hong, Kubik, and Stein, 2004; Khan and Rohi, 2013). This aspect is of attention to brokerage firms

to know what aspects within management scope affect investment decisions of individuals.

## **Subjective Norms**

The Theory of Reasoned Action (TRA) states that the pressures of subjective norms and an individual's attitude toward the behavior are the two main key determinants of intention. Ajzen and Fishbein (1980) confirm that, overall individuals intend to perform a behavior when they evaluate it positively and when they believe important "others" think they should perform it. However, the academics acknowledge the relative weights of attitude toward behavior and subjective norms vary based on the intent, and also vary from individual to individual (Ajzen and Fishbein, 1980).

Subjective norms are assessed for various referent groups and then summed to obtain the subjective norms variable. A number of researchers have found subjective norms to be the weakest predictor of intentions (Godin and Kok, 1996). Reasons posited for the weak predictive nature of subjective norms include a lack of clarity regarding the appropriate normative influences and measurement problems (Godin and Kok, 1996).

Subjective norms (SN) as the main construct, refer to different social references that exert influence or social pressure to perform a behavior (Dulany, 1968). Also, SN can be explained as the individual's perception of the likelihood that the potential referent group or individuals approve or disapprove of performing the given behavior (Fishbein and Ajzen, 1975). Ajzen (1991, 2014) defines SN as the social pressure to perform or not to perform the behavior. Furthermore, SN controls that behavior that is instigated by the desire to act as others think you should act. Therefore, SN is internally controlled, it does not operate through external reinforcement such as the overt congratulations or hostility of others (Malhotra and Galletta, 1999).

Many experimental studies show the significant relationships between subjective norm and intention (Fu et al., 2006; Venkatesh and Davis, 2000), while other studies prove insignificant links between the two constructs (W. Lewis, Agarwal, and Sambamurthy, 2003).

The association between subjective norms and behavior al intentions has been shown in several studies. Amin and Ramayah (2010) find that subjective norms are significantly associated with the intention to use SMS banking. The results from Amin (2012b, 2012c) show that subjective norm significantly influences the intention to use Islamic credit card. (Amin, 2013) discovers that subjective norms are the second major influential factors in explaining customers' intentions to choose Islamic credit cards. Sari and Rofaida (2012) and Rutherford and DeVaney (2009) found a similar result, that is, subjective norms are significantly related to credit card usage.

The results of Echchabi and Aziz (2012) and Wahyuni (2012) indicate that social influence is significant to the intention towards Islamic banking services. Apart from the studies of behavior al intention in Islamic banking services in general, there are some other studies concentrate on financing services offered by Islamic banks. Among others are Dzuljastri and Muhammad Abduh (2012), Syed et al. (2012), Hanudin et al. (2012), Hanudin et al. (2010) and Fauziah, Ramayah, and Dzuljastri (2008).

Abduh and Abdul Razak (2012) and Fauziah et al. (2008) show that subjective norms significantly influence customers' intention to engage in diminishing home financing. On the other hand, a similar study conducted by Amin et al. (2012) find out that subjective norms have a significant influence on the intention to apply Islamic home financing while (Alam, Jano, Wel, Aniza, & Ahsan, 2012) discover that subjective norms have no direct significant relationship to the intention in Islamic home financing.

Studies have also been done on personal financing and Qardhul Hassan. Among the studies conducted are by Amin and Chong (2011), Amin et al. (2011) and Amin et al. (2010) which conclude that subjective norms are significant in influencing the customers' intention. (Abduh, Duasa, & Omar, 2011) find that subjective norms have more significant influence on depositors' decisions to withdraw their money than attitude.

Besides there is research concentrating in customers' intention towards internet and online banking. (Devi Juwaheer, Pudaruth, & Ramdin, 2013), (Sum Chau and Ngai, 2010) and (Devi Juwaheer et al., 2013) find out that subjective norms have insignificant influence on the internet banking services. Their result however, are contradicted by Sum Chau and Ngai (2010) and Alsughayir and Albarq (2013) who find that subjective norms have a significant influence and are positively correlated towards internet banking.

On the other hand, TPB has also been applied in other related studies. Among the studies are Al-Ajam (2013), Nasri and Charfeddine (2012), Al-Smadi (2012) finds that social norm has a significant effect on



intention to use internet banking and electronic banking, while (Tan and Teo, 2000) find out social influence insignificant.

Apart from using the TPB, other studies have been conducted using the DTPB. Among them are by Jano et al. (2012), Jaruwachirathanakul and Fink (2005), and Shih and Fang. (2004) who find mixed effects of subjective norms. The first study reveals that social influence is significant while the second and third study find that social influence is not significant to the intention.

The studies on the use of the TRA and the TPB are not limited to the services offered by the banks but also extended to the insurance industry. Rahim and Amin (2011) and Amin (2012a) show that subjective norms are influential predictors of Islamic insurance acceptance. Innan and Moustaghfir (2012) find that subjective norms have much greater influence on employees' intentions to purchase healthcare insurance.

According to Croy, Gerrans, and Speelman (2012) the literature on the influence of normative factors in the financial markets is limited. East's (1993) study shows strong influence of subjective norms on the security of investments within the investment decision making. Alleyne and Broome (2011) report that subjective norms are significant predictors of investment intentions. Contrary to the above Shanmugham and Ramya (2012) which discover that subjective norms have a negative and insignificant relationship with the intention of investigating.

Ramayah et al. (2009) discover that subjective norms are significant in explaining the investors' intention to use internet stock trading. A related study is also conducted by Gopi and Ramayah (2007) who find out that subjective norms are significant to the intention to use internet stock trading among Malaysian investors. Lee (2009) reveals that subjective norms have no significant effect to the intention toward using internet stock investing among Taiwanese investors. The contrary results found by Abroud et al. (2010), among Iranian investors which supported by Lee-Partridge and Ho (2003) who perform explanation about the investors' intention in Singapore Stock exchange. Lau et al. (2001) show that subjective norms are not affecting the intention to adopt online trading in Hong Kong.

Since Internet stock trading takes place in a realistic organizational setting, Gopi and Ramayah (2007) find out that subjective norms have direct effects and a positive relationship towards behavior al intention to use internet stock trading. Summers, Belleau, and Xu, (2006) prove that subjective norms are significantly related to purchase intention. Furthermore, subjective norms also become an important factor to determine the behavior al intention to use the enterprise resource planning system (Calisir, Altin Gumussoy, and Bayram, 2009).

The different referents involve in subjective norms may be friends, parents, religious organizations, etc. (Kalafatis, Pollard, East, and Tsogas, 1999). Following Besley and Case (1994) and Foster and Rosenzweig (1995), social interactions are often analyzed by considering geographic neighbors (Munshi, 2004), networks of friends and neighbours (Bandiera and Rasul, 2006) or communication patterns between households to identify 'information neighbours' (Conley and Udry, 2010).

To date, most of the behavior al finance research on investor decision making has focused on the psychological perspective of investors. Yet, many factors like social interactions, and information on the mass media also directly affect individual investors' decision making. Individual investors discuss with and are affected by their family members, neighbours and friends, as far as their investment decisions are concerned (Nofsinger, 2005). Hence, factors like the media, the internet and social interactions have been considered and their related literature is discussed in this section.

Summers, Belleau, and Xu (2006) and Roberts and Henderson, (2000) assume subjective norm as a function of an individual's beliefs that specific individuals or groups think he/she has to or has not to perform the behavior. TPB suggests that one can form a belief based on what other people (important others) expect us to do or based on the observation on the action of the important others. Beliefs that underlie subjective norms are termed normative beliefs. Thus, normative beliefs affect subjective norm, intention, and behavior al intention and, and uses in the prediction it (Leonard, Cronan, & Kreie, 2004).

## RESEARCH METHODOLOGY

This study focuses on examining the determinant of the Investors Decision-making Behavior. Low rate of information technology in the Gaza strip local government is dedicated (Sultan, 2011). This study, therefore, A sample survey by interviewing and administering a questionnaire to a sample of Palestinians' investors' behavior is a measure to operationalize and extend the TPB model. a sample size of 257 is deemed to be appropriate using a formula proposed by Scheaffer, Mendenhall III, Ott, and Gerow (2011). An online internet questionnaire is considered for the data collection. There are three sections in the survey questionnaire. The first section is designed to collect demographic information relating to the respondents such as their: age, gender, Qualification, Job Title, Years of Experience, and working Ministry. The second section collects data about the Investors Decision-making Behavior. The last section collects data about factors affecting Investors Decision-making Behavior In this section, the questions have been built to proceed logically with one question linking to the next.



#### Conclusion

This conceptual paper discusses the determinants for Investors Decision-making Behavior in the investment sector decision and explains the usage of different influence strategy may affect the role of other factors in Investors Decision-making Behavior. This concept paper suggests and encourages future work to examine the effect of Subjective Norms to explain Investors Decision-making Behavior. In the next stage of this study, authors intend to investigate whether an influence strategy plays a significant effect of Investors Decision-making Behavior determinant to explain Investors Decision-making Behavior. By doing so, investors can utilize the findings of this study to understand which factors would most likely facilitate the Investors Decision-making Behavior. In addition, the findings of this paper are to enable the investors and economist to manage the effects of these factors more effectively.

#### References

- Abdi, M. H. (2015). Factors influencing Islamic banking selection criteria among muslim international students of selected universities in northern states of Malaysia. Universiti Utara Malaysia.
- Abduh, M., & Abdul Razak, D. (2011). Customers' attitude towards diminishing partnership home financing in Islamic banking.
- Abduh, M., Omar, M., & Duasa, J. (2011). The impact of crisis and macroeconomic variables towards Islamic banking deposits.
- Adibe, O. O., Amin, S. R., Hansen, E. N., Chong, A. J., Perger, L., Keijzer, R., ... Harmon, C. M. (2011). An evidence-based clinical protocol for diagnosis of acute appendicitis decreased the use of computed tomography in children. *Journal of Pediatric Surgery*, 46(1), 192–196.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behaviour.
- Ali, F., Omar, R., & Amin, M. (2013). An examination of the relationships between physical environment, perceived value, image and behavioural Intentions: A SEM approach towards Malaysian resort hotels. *Journal of Hotel and Tourism Management*, 27(2), 9–26.
- Alleyne, P., & Broome, T. (2011). Using the Theory of Planned Behaviour and Risk Propensity to Measure Investment Intentions among Future Investors, 36(1), 1–23.
- Ambros, V. (2001). microRNAs: tiny regulators with great potential. Cell, 107(7), 823-826.
- Amin, A. (2011). Post-Fordism: a reader. John Wiley & Sons.
- Amin, H. (2012). Patronage factors of Malaysian local customers toward Islamic credit cards. *Management Research Review*, 35(6), 512–530.
- Amin, H., & Ramayah, T. (2010). SMS banking: Explaining the effects of attitude, social norms and perceived security and privacy. *The Electronic Journal of Information Systems in Developing Countries*, 41(2), 1–15.
- Amin, H., Rahim Abdul Rahman, A., Laison Sondoh Jr, S., & Magdalene Chooi Hwa, A. (2011). Determinants of customers' intention to use Islamic personal financing: The case of Malaysian Islamic banks. *Journal of Islamic Accounting and Business Research*, 2(1), 22–42.
- Arab, P., Parrish, E., \.Islamo\uglu, T., & El-Kaderi, H. M. (2015). Synthesis and evaluation of porous azolinked polymers for carbon dioxide capture and separation. *Journal of Materials Chemistry A*, 3(41), 20586–20594
- Arab, P., Parrish, E., \.Islamo\uglu, T., & El-Kaderi, H. M. (2015). Synthesis and evaluation of porous azolinked polymers for carbon dioxide capture and separation. *Journal of Materials Chemistry A*, 3(41), 20586–20594.
- Bandiera, O., & Rasul, I. (2006). Social networks and technology adoption in northern mozambique\*. *The Economic Journal*, 116(514), 869–902.
- Bayar, O., & Chemmanur, T. J. (2011). IPOs versus acquisitions and the valuation premium puzzle: a theory of exit choice by entrepreneurs and venture capitalists. *Journal of Financial and Quantitative Analysis*, 46(6), 1755–1793.
- Besley, T., & Case, A. (1994). Diffusion as a learning process: Evidence from HYV cotton.
- Bricker, L., Garcia, J., Henderson, J., Mugford, M., Neilson, J., Roberts, T., ... others. (2000). Ultrasound screening in pregnancy: a systematic review of the clinical effectiveness, cost-effectiveness and women's views. NCCHTA.
- Calisir, F., Altin Gumussoy, C., & Bayram, A. (2009). Predicting the behavioral intention to use enterprise resource planning systems: An exploratory extension of the technology acceptance model. *Management Research News*, 32(7), 597–613.
- Chang, L.-Y., Tsao, K.-C., Hsia, S.-H., Shih, S.-R., Huang, C.-G., Chan, W.-K., ... Lin, T.-Y. (2004). Transmission and clinical features of enterovirus 71 infections in household contacts in Taiwan. *Jama*, 291(2), 222–227.



- Conley, T. G., & Udry, C. R. (2010). Learning about a new technology: Pineapple in Ghana (No. 817). The American Economic Review. JSTOR.
- Croy, G., Gerrans, P., & Speelman, C. (2012). Normative influence on retirement savings decisions: Do people care what employers and the government want? *Australian Journal of Psychology*, 64(2), 83–91.
- Devi Juwaheer, T., Pudaruth, S., & Ramdin, P. (2013). Enhancing customer shopping experience in malls of emerging countries--the "Mauritius" experience. *World Journal of Entrepreneurship, Management and Sustainable Development*, 9(2/3), 178–190.
- Dulany, D. E. (1968). Awareness, rules, and propositional control: A confrontation with SR behavior theory. Prentice-Hall.
- Earley, P. C. (1993). East meets West meets Mideast: Further explorations of collectivistic and individualistic work groups. *Academy of Management Journal*, *36*(2), 319–348.
- Echchabi, A., & Aziz, H. A. (2012). THE RELATIONSHIP BETWEEN RELIGIOSITY AND CUSTOMERS'ADOPTION OF ISLAMIC BANKING SERVICES IN MOROCCO. *Arabian Journal of Business and Management Review (Oman Chapter)*, *I*(10), 89.
- Estrada, K., Styrkarsdottir, U., Evangelou, E., Hsu, Y.-H., Duncan, E. L., Ntzani, E. E., ... others. (2012). Genome-wide meta-analysis identifies 56 bone mineral density loci and reveals 14 loci associated with risk of fracture. *Nature Genetics*, 44(5), 491.
- Fahmi, A., Radjagukguk, B., Purwanto, B. H., & Hanudin, E. (2010). The role of peat layers on iron dynamics in peatlands. *Jurnal TANAH TROPIKA (Journal of Tropical Soils)*, 15(3), 195–201.
- Fama, E. F. (1998). Market efficiency, long-term returns, and behavioral finance1. *Journal of Financial Economics*, 49(3), 283–306.
- Fauziah, Taib, M., Ramayah, T., & Abdul Razak, D. (2008). Factors influencing intention to use diminishing partnership home financing. *International Journal of Islamic and Middle Eastern Finance and Management*, *I*(3), 235–248.
- Fayolle, A., & Liñán, F. (2014). The future of research on entrepreneurial intentions. *Journal of Business Research*, 67(5), 663–666.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research.* Floudas, D., Binder, M., Riley, R., Barry, K., Blanchette, R. A., Henrissat, B., ... others. (2012). The Paleozoic origin of enzymatic lignin decomposition reconstructed from 31 fungal genomes. *Science*, *336*(6089), 1715–1719.
- Foster, A. D., & Rosenzweig, M. R. (1995). Learning by doing and learning from others: Human capital and technical change in agriculture. *Journal of Political Economy*, 1176–1209.
- Gilovich, T., Griffin, D., & Kahneman, D. (2002). *Heuristics and biases: The psychology of intuitive judgment*. Cambridge University Press.
- Glaser, M., & Weber, M. (2007). Overconfidence and trading volume. *The Geneva Risk and Insurance Review*, 32(1), 1–36.
- Godin, G., & Kok, G. (1996). The theory of planned behavior: a review of its applications to health-related behaviors. *American Journal of Health Promotion*, 11(2), 87–98.
- Gopi, M., & Ramayah, T. (2007). Applicability of theory of planned behavior in predicting intention to trade online: Some evidence from a developing country. *International Journal of Emerging Markets*, 2(4), 348–360.
- Griffin, C. M., Jano, B., Lee, J. W., Mihaylova, M. K., & Wilson, C. R. D. (2012). Voice and text group chat display management techniques for wireless mobile terminals. Google Patents.
- Guiso, L., & Jappelli, T. (2005). Awareness and stock market participation. Review of Finance, 9(4), 537–567.
- Guyatt, G. H., Oxman, A. D., Sultan, S., Glasziou, P., Akl, E. A., Alonso-Coello, P., ... others. (2011). GRADE guidelines: 9. Rating up the quality of evidence. *Journal of Clinical Epidemiology*, 64(12), 1311–1316.
- Hanudin, E., Wismarini, H., Hertiani, T., & Hendro Sunarminto, B. (2012). Effect of shading, nitrogen and magnesium fertilizer on phyllanthin and total flavonoid yield of Phyllanthus niruri in Indonesia soil. *Journal of Medicinal Plants Research*, 6(30), 4586–4592.
- Hong, H., Kubik, J. D., & Stein, J. C. (2004). Social interaction and stock market participation. *The Journal of Finance*, *59*(1), 137–163.
- Hu, Y., & Fu, Q. (2007). Observed poleward expansion of the Hadley circulation since 1979. *Atmospheric Chemistry and Physics*, 7(19), 5229–5236.
- Innan, R., & Moustaghfir, K. (2012). Predicting Employees' Behavior: An Application of the Theory of Planned Behavior; The Case of the Moroccan Forestry Department (HCEFLCD). In *Knowledge and Learning:* Global Empowerment; Proceedings of the Management, Knowledge and Learning International Conference 2012 (pp. 333–348). International School for Social and Business Studies, Celje, Slovenia.
- Jaruwachirathanakul, B., & Fink, D. (2005). Internet banking adoption strategies for a developing country: the case of Thailand. *Internet Research*, 15(3), 295–311.



- Kahneman, D., & Tversky, A. (1979). On the interpretation of intuitive probability: A reply to Jonathan Cohen. *Cognition*, 7(4), 409–411.
- Kalafatis, S. P., Pollard, M., East, R., & Tsogas, M. H. (1999). Green marketing and Ajzen's theory of planned behaviour: a cross-market examination. *Journal of Consumer Marketing*, *16*(5), 441–460.
- Khan, S., & Rohi, S. (2013). Investigating The Factors Affecting Youth Brand Choice For Mobile Phones Purchase-A Study Of Private Universities Students Of Peshawar. *Management & Marketing*, 8(2), 369.
- Kharb, R., Kaur, R., & Sharma, A. K. (n.d.). THERAPEUTIC IMPACT OF NOVEL THIADIAZOLE SCAFFOLDS IN DRUG DESIGN DRUG DESIGN AS POTENT ANTIMICROBIAL AGENTS AS POTENT ANTIMICROBIAL AGENTS.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics*, 58(1), 3–27.
- Lean, O. K., Zailani, S., Ramayah, T., & Fernando, Y. (2009). Factors influencing intention to use e-government services among citizens in Malaysia. *International Journal of Information Management*, 29(6), 458–475.
- Lee-Partridge, J. E., & Ho, P. S. (2003). A retail investor's perspective on the acceptance of Internet stock trading. In *System Sciences*, 2003. Proceedings of the 36th Annual Hawaii International Conference on (p. 11–pp). IEEE.
- Leonard, L. N. K., Cronan, T. P., & Kreie, J. (2004). What influences IT ethical behavior intentions—planned behavior, reasoned action, perceived importance, or individual characteristics? *Information & Management*, 42(1), 143–158.
- Lewis, W., Agarwal, R., & Sambamurthy, V. (2003). Sources of influence on beliefs about information technology use: an empirical study of knowledge workers. *MIS Quarterly*, 657–678.
- Lovric, M., Kaymak, U., & Spronk, J. (2008). A conceptual model of investor behavior. ERS-2008-030-F&A.
- Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of Consumer Affairs*, 44(2), 358–380.
- Malhotra, Y., & Galletta, D. F. (1999). Extending the technology acceptance model to account for social influence: Theoretical bases and empirical validation. In *Systems Sciences*, 1999. HICSS-32. Proceedings of the 32nd Annual Hawaii International Conference on (p. 14–pp). IEEE.
- March, J. G., & Olsen, J. P. (1998). The institutional dynamics of international political orders. *International Organization*, 52(4), 943–969.
- Munshi, K. (2004). Social learning in a heterogeneous population: technology diffusion in the Indian Green Revolution. *Journal of Development Economics*, 73(1), 185–213.
- Ng, A. M. H., Tan, K. K., Phang, M. Y., Aziyati, O., Tan, G. H., Isa, M. R., ... Ruszymah, B. H. I. (2008). Differential osteogenic activity of osteoprogenitor cells on HA and TCP/HA scaffold of tissue engineered bone. *Journal of Biomedical Materials Research Part A*, 85(2), 301–312.
- Nofsinger, J. R. (2005). Social mood and financial economics. *The Journal of Behavioral Finance*, 6(3), 144–160.
- Rabin, T. (1998). A simplified approach to threshold and proactive RSA. In *Annual International Cryptology Conference* (pp. 89–104).
- Riaz, L., & Hunjra, A. I. (2012). Impact of psychological factors on investment decision making mediating by risk perception: A conceptual study. *Middle East Journal of Scientific Research*, 12(6), 789–795.
- Rufaida, R., & Kurniawan, L. C. (2012). PENANGANAN KASUS NYERI PUNGGUNG BAWAH DI PUSKESMAS KANDANGSAPI KOTA PASURUAN (PERIODE BULAN JANUARI 2007--BULAN DESEMBER 2007). *Jurnal Kesehatan Hesti Wira Sakti*, 2(1), 19–24.
- Rufaida, R., & Kurniawan, L. C. (2012). PENANGANAN KASUS NYERI PUNGGUNG BAWAH DI PUSKESMAS KANDANGSAPI KOTA PASURUAN (PERIODE BULAN JANUARI 2007--BULAN DESEMBER 2007). *Jurnal Kesehatan Hesti Wira Sakti*, 2(1), 19–24.
- Scheaffer, R. L., Mendenhall III, W., Ott, R. L., & Gerow, K. G. (2011). *Elementary survey sampling*. Cengage Learning.
- Shanmugham, R., & Ramya, K. (2012). Impact of social factors on individual investors' trading behaviour. *Procedia Economics and Finance*, 2(2012), 237–246.
- Shefrin, H., & Statman, M. (1994). Behavioral capital asset pricing theory. *Journal of Financial and Quantitative Analysis*, 29(3), 323–349.
- Shefrin, H., & Statman, M. (2000). Behavioral portfolio theory. *Journal of Financial and Quantitative Analysis*, 35(2), 127–151.
- Shiller, R. J. (1995). Conversation, information, and herd behavior. The American Economic Review, 181-185.
- Statman, M. (2014). Behavioral finance: Finance with normal people. Borsa Istanbul Review, 14(2), 65-73.
- Strahilevitz, M. A., Odean, T., & Barber, B. M. (2011). Once burned, twice shy: How na {"\i}ve learning, counterfactuals, and regret affect the repurchase of stocks previously sold. *Journal of Marketing Research*, 48(SPL), S102--S120.



- Summers, T. A., Belleau, B. D., & Xu, Y. (2006). Predicting purchase intention of a controversial luxury apparel product. *Journal of Fashion Marketing and Management: An International Journal*, 10(4), 405–419.
- Ton, H. T. H., & Dao, T. K. (2014). The Effects of Psychology on Individual Investors' Behaviors: Evidence from the Vietnam Stock Exchange. *Journal of Management and Sustainability*, 4(3), p125.
- Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449–472.
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186–204.
- Wahyuni, D. (2012). The research design maze: Understanding paradigms, cases, methods and methodologies.
- Washington, M., Shirley, E., Lisset, G., & Regina, R. (2015). Students' perceived risk and investment intention: the effect of brand equity. *Management & Marketing*, 10(3), 209–225.
- Weaver, R. K., & Rockman, B. A. (2010). *Do institutions matter?: government capabilities in the United States and abroad*. Brookings Institution Press.
- Zakariyah, L. (2012). Necessity as a pretext for violation of Islamic Commercial Law: A Scenario of Mortgage Contract in the UK.
- Zhang, J., Yedlapalli, P., & Lee, J. W. (2009). Thermodynamic analysis of hydrate-based pre-combustion capture of CO2. *Chemical Engineering Science*, 64(22), 4732–4736.