

The Determinants affecting Intention towards Investment Decision in Stock Markets

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Abstract

The changes in decisions through the behavior of individuals towards investment in stock market are not only affected by rational factors but various psychological factors have an impact on the behavior of the individuals towards investment in stock market. Naturally psychological factors may exist but the people may do not have awareness about these factors, but these factors have a lot of impact on the behavior of individuals towards investments in the stock market. Therefore, the reason for conducting the current study is to employ the decomposed version of the theory of planned behavior for the investigation of the determinants affecting individual's intention towards investment in Pakistan stock market. The study has used Structural Equation Model (SEM) analyzing the data collected from registered corporate members of Sarhad and Islamabad Chamber of Commerce as a population. The sample was selected by using the proportionate stratified random sampling technique and through questionnaire the data was collected. Study used Smart PLS3 software and results revealed a positive significant impact of attitude, subjective norms and perceived behavioral control on intention towards investment behavior in Pakistan stock market. The study has decomposed the attitude, subjective norms and perceived behavioral control in various components for clearly understanding the behavior of an individual. The study found significant positive relationship of these components with attitude, subjective norms and perceived behavioral control. Findings from the study will play a great role in academic and practical contributions.

Keywords: Pakistan stock market, individual investors, theory of planned behavior

Introduction

Currently trend has been started to participate in stock market to save for retirement by individuals keeping in view the growing responsibility on them (Alessie et al., 2011). In the same time, the complexities of financial instruments and unpredictable circumstances of the financial markets have made it tough for ones who want to invest in stock markets (Lusardi & Mitchell, 2011). According to some studies there is lack of financial information with the households (Lusardi & Mitchell, 2011), or even they are not clutch any information related to financial instruments (Guiso & Jappelli, 2006), which result the biases in their

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behavior (Kahneman et al., 1991) and involved in high deals (Barber & Odean, 2001) and with this in response they tends to made wrong financial decision (Goetzmann & Kumar, 2008).

The reason for changes the decisions through the behavior of individuals towards investment in stocks is not only influenced by rational aspects but in the existence of various psychological factors that has the impact on the behavior of the individuals towards investment in stock market (Phan & Zhou, 2014).

For predicting various human behaviors theory of reason action (TRA) in addition of the theory of planned behavior (TPB) are confirmed to be comparatively useful (Sheppard et al., 1988). Particularly TPB, established based on the TRA for more than 25 years ago, has confirmed as one of the best theory for using to study the human behaviors with the extensive range of impact (Lai et al., 2010). Therefore, the current study used a decomposed version of TPB for investigating the impact of attitude, subjective norm and perceived behavioral control towards investment behavior respectively on the intensions of the individuals towards investment in the market for stocks at Pakistan.

Objectives of the study were to examine the effect of “attitude towards the investment, subjective norm and perceived behavioral control” on the intentions of the individuals towards investment in Stock market and to assess the Psychological one’s factors that influences individuals’ investment decisions in stock market. The researcher also measures the level of interest for investing in stock market in the selected cities of Pakistan. The study suggested guidelines for broker firms in understanding the psychological factors that increase investor’s intensions. This study is expected to fetch the important managerial inferences in the market for stocks in Pakistan.

Literature Review

Theory of planned behavior classifies three instant determinants of the intention towards investment decision of the individuals. These three determinants are attitude towards the behavior, perceived behavioral control and subjective norms discussed below.

Attitude

Attitude towards behavior is individuals’ general feelings representing their likeness and unlikeness to the behavior for something. The new definition of attitude towards intention stated by (Ajzen & Fishbein, 2000) that it is a range of positive and negative feelings about the specific objects.

Subjective Norms (SN)

Subjective Norm's is defined as individual's opinion about the others important to him or her thinking that the behavior should be executed or not (Fishbein & Ajzen, 1980). It is also defined as the one's assessments that the performing of the behavior is accepted or not by the one's most important peoples in their life (Ajzen, 1991; Fishbein, 1974).

Perceived behavioral control

According to Ajzen & Fishbein, (2005) perceived behavioral control is the ease of using something or in opposite difficulties faced by the individuals to perform the behavior. They further explain that if the individuals have a strong PBC for example investor, the more chances that they will perform a behavior.

Intention towards behavior

Studies have proven that intention towards behavior is a very important precursor of the behavior, and there is strong correlation between intention and behavior. These statements are taken from the case of TRA model (Fishbein, 1974), TPB model (Ajzen, 1991), and the decomposition of TPB (Taylor & Todd, 1995), incorporated TBP by (Chau & Hu, 2001), and (Davis, 1989; Venkatesh & Davis, 2000).

Decomposing the theory of planned behavior

The TPB specifies that these factors are affected by the sum of some belief structures. According to (Ajzen, 1991) attitude is regulated by the beliefs connected with the feelings of the individuals. SN and PBC are regulated normative and control beliefs.

According to Taylor & Todd, (1995), only limiting the structure into certain one are reducing the ability and capacity of the TPB to generalize the reality. For reducing the constraints, authors have presented an approach in a more innovative way for the identification and measurement of more belief structures in the TPB model. Taylor & Todd, (1995) has decomposed in a study the attitude and subjective and control beliefs into multidimensional aspects.

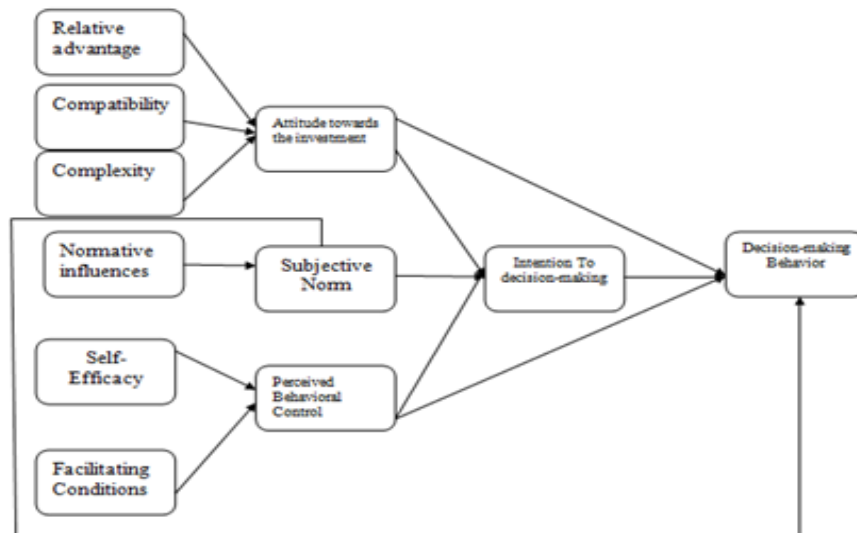
Relative advantage is defined the feelings of the individuals about the products in which he or she may want to invest has better outcomes as compare to others. Complexity is defined as the extent to which the individuals feels that the activity to be performed by them would be difficult to understand and perform (Rogers, 1983).

Compatibility is define as the extent to which the activity specifically (investment) in our study has fit the into the personality and life style of the individuals or not (Rogers, 1983). According to the study of Allen, (2000) innovation is adopted by the individuals more if they fit to the life style, values system and responsibilities and it is compatible with job for them. Therefore, compatibility may work as positive predictor for attitude towards intention.

Considering the structure of the subjective norms, there are some studies which have decompose the normative belief structure for example Burnkrant & Page Jr, (1988), but on the other side some studies failed in this matter e.g. Shimp & Kavas, (1984) and (Oliver & Bearden, 1985). We in this study have only incorporating one component for the subjective norms which is in turn will affect positively the subjective norms of the individuals.

PBC has been decomposed into two components in studies with the ultimate goal of better results first was facilitating conditions (Triandis, 1979), refers to the availability of different resources to execute certain behavior. While the second component for PBC was included (Ajzen, 1991), “Self-Efficacy” means the ability and confident of performing certain behavior (Bandura, 1977, 1982).

Theoretical Framework



Hypothesis for the study

- H₁: Attitude toward investment of the individual investor has significant effect on investing intention
- H₂: Relative advantage has positive influence on Attitude toward investment of the individual investor
- H₃: Compatibility has positive influence on Attitude toward investment of the individual investor
- H₄: Complexity has positive influence on Attitude toward investment of the individual investor

H₅: The subjective norm that favors investment has significant effect on investing intention

H₆: The Normative influence has significant effect on the subjective norm

H₇: Perceived behavioral control of individual investors has significant effect on investing intentions

H₈: Self-efficacy has a significant effect on perceived behavioral control for investing in stock market

H₉: Facilitating Conditions has a significant effect on perceived behavioral control for investing in stock market

H₁₀: Attitude toward investment of the individual investor has significant effect on investing behavior

H₁₁: The subjective norm that favors investment has significant effect on investing behavior

H₁₂: Perceived behavioral control of individual investors has significant effect on investing behavior

H₁₃: Intention towards investment mediates the relationship between Attitude toward investment and decision-making behavior for investment

H₁₄: Intention towards investment mediates the relationship between subjective norm and decision-making behavior for investment

H₁₅: Intention towards investment mediates the relationship between Perceived behavioral control of individual investors and their decision-making behavior for investment

H₁₆: Intention towards investment has positive significant impact in investment behavior of the individual investor

Research Methodology

The quantitative research technique as post positivism approach has applied for theory testing. Primary Data for this study has been collected by using the questionnaire. Cronbach's Alpha was used to test reliability of questionnaire. Population of this research was based on business corporations and their owners registered at Sarhad Chamber of Commerce (SCC) KP and Islamabad chamber of commerce Islamabad (ICCI) for the year of 2018-2019. Justification for targeting owners of business corporations is; they have more financial resources than any other unit of the society. Proportionate stratified random sampling technique for the collection of data which was also used by (Koitaba et al., 2016). Registered member's corporations in SCC KP were 487 and in ICCI were 517, for the year 2018-2019. According to Morgan's formula sample size of 217 was taken as sample from both organizations.

Data Analysis

"SmartPLS3.0" was used for testing the hypotheses.

Table 1

Items	VIF (Peshawar)	VIF(Islamabad)	Items	VIF (Peshawar)	VIF (Islamabad)
ATI	1.245	1.115	NI	1.023	1.062
COM	1.356	1.242	PBC	1.785	1.469
COMP	1.624	1.491	RA	1.135	1.189
FC	1.425	1.223	SE	1.632	1.753
IISI	1.956	1.255	SNS	2.841	1.491

The Table 1 shows that the values for each item VIF are greater than 1.00 and less than 3.00 which means there is no multicollinearity exist.

Table 2

Variables	CA		CR		AVE	
	Peshawar	Islamabad	Peshawar	Islamabad	Peshawar	Islamabad
ATI	0.752	0.714	0.745	0.735	0.535	0.545
COM	0.701	0.724	0.724	0.755	0.673	0.535
COMP	0.821	0.735	0.792	0.714	0.575	0.578
FC	0.741	0.812	0.82	0.74	0.611	0.612
IIS	0.792	0.716	0.87	0.754	0.552	0.735
IB	1	1	1	1	1	1
NI	0.722	0.758	0.722	0.845	0.752	0.612
PBC	0.762	0.714	0.764	0.821	0.619	0.55
RA	0.735	0.832	0.736	0.725	0.55	0.527
SE	0.764	0.84	0.763	0.765	0.721	0.614
SNS	0.827	0.789	0.817	0.715	0.73	0.752

The table 2 shows the results of “Cronbach’s Alpha” “Composite reliability” and “Average Variance Extracted (AVE)” where the values for the said tests are greater than the recommended level like 0.70, 0.70, and 0.50 respectively which shows that the data is reliable.

Model Fitness

To test the reliability and validity of the research instrument study used first the confirmatory factor analysis (CFA) for assessing the whole measurement quality.

Table 3

Measure	Recommended	SEM	SEM	Source
s	Criterion	(Peshawar)	(Islamabad)	
SRMR	<0.08	0.056	0.046	Sarstedt et al., 2014
NFI	>0.9	0.912	0.982	Hair Jr, 2006
Chi ² /df	<3.0	2.123	1.253	Hair Jr, 2006

Table 3 showed that the value for Standardized Root Mean Square Residual (SRMR), Normed Fit Index (NFI) and Chi² and Degrees of Freedom ratio fulfill the recommended criterion for model fitness.

Table 4

Variables	R-Square	Variables	R-Square
ATIP	0.623	PBCP	0.746
IISP	0.752	SNP	0.616

IBP 0.765

The R^2 value for Attitude towards investment in Peshawar region is 0.623 which means 62% amendments occur in attitude towards investment due to included variables. Same is the case used for IISP, IBP, PBCP and SNP for which the R^2 values are 75%, 77%, 75%, and 62% respectively changes occurred in these variables due to other included variables showed in Table 4.

Table 5a Peshawar Based Results (Summary)

S.No	Hypothesis	Sample	Mean	Std Dev	T Stats	Sign	Status
1	ATIP -> IISP	0.439	0.44	0.07	6.288	0.000	Accepted
2	RAP-> ATIP	0.396	0.398	0.058	6.889	0.000	Accepted
3	COMP -> ATIP	0.126	0.126	0.07	1.799	0.073	Rejected
4	COMPP -> ATIP	0.392	0.392	0.064	6.114	0.000	Accepted
5	SNSP -> IISP	0.179	0.183	0.065	2.769	0.006	Accepted
6	NIP -> SNSP	0.611	0.616	0.047	13.122	0.000	Accepted
7	PBCP -> IISP	0.252	0.251	0.073	3.453	0.001	Accepted
8	SEP -> PBCP	0.295	0.305	0.126	2.337	0.020	Accepted
9	FCP -> PBCP	0.415	0.411	0.124	3.338	0.001	Accepted
10	ATIP -> IBP	-0.135	-0.138	0.091	1.477	0.140	Rejected
11	SNSP -> IBP	0.089	0.095	0.087	1.022	0.307	Rejected
12	PBCP -> IBP	0.440	0.441	0.09	4.889	0.000	Accepted
13	ATIP -> IISP -> IBP	0.752	0.751	0.095	7.916	0.000	Accepted
14	SNSP-> IISP -> IBP	0.652	0.635	0.085	7.671	0.000	Accepted
15	PBCP-> IISP -> IBP	0.662	0.602	0.098	6.755	0.000	Accepted
16	IISP -> IBP	0.795	0.856	0.105	7.604	0.000	Accepted

The results for the hypothesis testing for Peshawar and Islamabad region are mentioned in Table 5a and 5b. Most of the hypotheses are accepted expect hypothesis 3, 10 and 11.

Table 5b Islamabad Based Results Summary

S. No	Hypothesis	Sample	Mean	Std Dev	T Stats	Sign	Status
1	ATII -> IISI	0.545	0.532	0.084	6.488	0.000	Accepted
2	RAI-> ATII	0.412	0.401	0.065	6.338	0.000	Accepted
3	COMI -> ATII	0.235	0.133	0.085	2.765	0.005	Accepted
4	COMPI -> ATII	0.422	0.423	0.052	8.115	0.000	Accepted
5	SNSI -> IISI	0.185	0.184	0.063	2.937	0.004	Accepted
6	NII -> SNSI	0.555	0.523	0.089	6.236	0.000	Accepted
7	PBCI -> IISI	0.323	0.312	0.084	3.845	0.001	Accepted
8	SEI -> PBCI	0.256	0.333	0.122	2.098	0.008	Accepted
9	FCI -> PBCI	0.385	0.461	0.132	2.917	0.001	Accepted
10	ATII -> IBI	-0.127	-0.126	0.088	1.443	0.159	Rejected
11	SNSI -> IBI	0.098	0.095	0.082	1.195	0.324	Rejected
12	PBCI -> IBI	0.521	0.518	0.098	5.316	0.000	Accepted
13	ATII -> IISI -> IBI	0.758	0.757	0.095	7.979	0.000	Accepted
14	SNSI-> IISI -> IBI	0.632	0.631	0.099	6.384	0.000	Accepted

15	PBCI-> IISI -> IBI	0.556	0.552	0.101	5.505	0.000	Accepted
16	IISI -> IBI	0.856	0.852	0.098	8.735	0.000	Accepted

As mentioned in the objectives section of the research the researcher has the objective is to compare the results of the two separate cities i.e. Peshawar and Islamabad for measuring the level of interest of the individuals living in these cities towards the investment decision in Stock market. In this section the researcher compares the results of these cities in Table 6 on the basis of the T-statistics value. The data analysis we have carried out for this research was to test the constructed hypothesis from the literature review. The results were supported by the previous studies with a little bit addition in the scenario of Pakistan.

Table 6 Comparison

S.No	Hypothesis	Peshawar	Islamabad
1	Hypothesis 1:	Accepted	Accepted
2	Hypothesis 2:	Accepted	Accepted
3	Hypothesis 3:	Rejected	Accepted
4	Hypothesis 4:	Accepted	Accepted
5	Hypothesis 5:	Accepted	Accepted
6	Hypothesis 6:	Accepted	Accepted
7	Hypothesis 7:	Accepted	Accepted
8	Hypothesis 8:	Accepted	Accepted
9	Hypothesis 9:	Accepted	Accepted
10	Hypothesis 10:	Rejected	Rejected
11	Hypothesis 11:	Rejected	Rejected
12	Hypothesis 12:	Accepted	Accepted
13	Hypothesis 13:	Accepted	Accepted
14	Hypothesis 14:	Accepted	Accepted
15	Hypothesis 15:	Accepted	Accepted
16	Hypothesis 16:	Accepted	Accepted

Conclusion

The study revealed that the entire hypotheses have been tested and objectives for the study have been achieved successfully. The purpose of our study is to investigate those factors that influence the intention towards investment decision in Pakistan Stock Market. For this purpose, we used the decomposed TPB to determine the impact of attitude towards the investment, subjective norm and perceived behavioral control respectively on individuals' investment intentions in Stock market. Study also determined the impact of complexity, compatibility and Relative advantage on attitudes towards investment intention. For both of the cities i.e. Peshawar and Islamabad the Relative Advantage and Complexity are significant determinants for attitude towards investments. On the other hand, compatibility is significant determinant for attitude towards investment in Peshawar only.

Further, in the current study we also determine the impact of Self-Efficacy and Facilitating Conditions on Perceived Behavioral Control. Findings suggest that Self-Efficacy and Facilitating Conditions has

significant positive influence on the Perceived Behavioral Control in both of the city's individuals. Positive significant impact of Attitude toward investment of the individual investor on investment intention has been found for both the cities. Subjective norm that favors investment has significant effect on investing intention was tested and findings revealed that there is a strong significant impact of subjective norm that favors investment on investing intentions. It means that for both of the cities individual's families are important for them. The findings also suggested that if the individuals have perceiving that they have knowledge for doing investment in stock market then they are intending to do so. In the study we constructed both direct and indirect impact of attitudes towards investments, subjective norms and perceived behavioral control on investment behavior decision of the individuals in stock market.

Recommendations and future research

The government and officials should provide enough information about stock markets to individuals. Individuals are willing to invest their money in stock market if they are encouraged therefore the brokerage firms should increase the benefits and rewards. Ease of access and facilitation of investor is required to invest in stock market. Results from the study would help the individuals from falling into "psychological trap" during their involvement in the activities of stock market.

The future studies may include more variables as determinants of intentions towards investment behavior of the individuals in stock market. The future researches may be carried out by taking the sample of individuals from other professions and targeting other investment areas to test TBP for the individuals.

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