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ANALYSIS EFFECT OF INVESTMENT BEHAVIOR, REACTION TO RISKS AND KNOWLEDGE IN STOCK EXCHANGE TO THE USE OF FINANCIAL ANALYSIS AND INVESTOR PERFORMANCE AT THE INDONESIAN STOCK EXCHANGE (A SURVEY OF INVESTORS' BEHAVIOUR IN MAKASSAR, INDONESIA)

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Abstract: *The purposes of this study are to investigate the effect of investor behavior, how the investor react to risks and knowledge in the stock exchange could affect how the investor would use financial analysis to achieve investor performance. This research was undertaken in Makassar, South Sulawesi, Indonesia, with the participants 150 investors, which were chosen from 2800 investors. The sample were registered at 17 securities firm in Makassar area. The data were collected using written questionnaires and it was analysed in SPSS version 19 and Amos 20.*

The findings in this research indicate that investor behavior could affect significantly to the use of financial analysis with regression weight of 0.707, moreover investor behavior could affect significantly to investor performances with regression weight of 0.851. Furthermore, investor's react to risk affected significantly to investor's performance with regression weight of 0.641, however it did not affect to the use of financial analysis. Stock exchange knowledge did not affect to the use of financial analysis, but it affected significantly to investor's performance with regression weight of 0.400. Lastly, the use of financial analysis did not affect to investor performance, which means the use of financial analysis would not contribute change in investor's performance.

INTROODUCTION

Indonesian economy growth tend to slow after global economic shock in 2007, Indonesa facing positive economic growth, which means Indonesian capital market would grow positively. The LQ45 (the fourty five most liquid share in Indonesian Stock Exchange) increased 599.82 at the end of 2007. This figure indicates that financial sector has increased in 2007. Therefore economic problem could be solved and economy increased immediately. This phenomenon gave good impression for business sector especially for capital market including shares, mutual fund and obligation (Said, 2013).

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The Indonesian stock exchange report in the year 2010 reveals thar 415 companies listed at Indonesian Stock Exchange with the volume of transaction of Rp.1 249.27 trlllion or Rp.5.12 per day and market capitalization of Rp 3 243.77 trillion (Zubir, 2011). This data indicates that many firms tried to raise capital in Indonesian capital market and they tend to have good management standard and publicly well informed financial report. Therefore, investors become interested to participate actively in Indonesian capital market, they beleive that listed firms would be better to organize their businesses. As investors relying on capital market due to appropriate business report, the number of investor increase to 344872 in the year 2013, the figure locally in Makassar the number of investor also increase to 2808, in the year 2015 the number invedtor in Makassar increase to 3250 (oke zone.com, 2015) The volume of transaction per day Rp.4.5 billion to Rp.5 billion while the volume of transaction in Makassar Rp.500 billion per month (Said, 2013). These figures seems that investors want to invest more in the capital market if the market could ensure them that invested many would safe. Investment trend indicates that economic growth could be contruted by growth in stock exchang as the consquence of many investors relying on the growth in stock exchange.The listed firms could expand its business in manufacturing and in the riel sector, at the same time the investors also could increase its investment in a variety businesses.Therefore the emiten, investors and stock exchange could increase their financial capacity especially to develop the real sector in economy.

The firms seek funds at stock exchange to raise its capital or expansion activities due to increase its asset, while the investors seek rewards or return by investing its funds in the stock exchange. The security exchange commission in stock exchange must protect the company interest in order to maintain investor's funds in the stock echange. The conflict of interest may exist in the stock echange due to the differences between stock exchange, bond holeders, management, financial institution and society. It is important to manage the conflict in appropriate solution to prevent the agency theory (Damodaran,2001). Management needs to arrange the conflict of interest in harmony way.

The stock exchange commission needs to have a variety reference to know investor's character in order to investigate stock exchange in difference angle such as investor's reaction to investment, risks, stock exchange knowledge, the use of financial analysis to achieve better investor performance. Crutchley et.al (1999) investigated investor behaviour and found that managers believe that external control of the firms especially investors tend to more effective than internal control such as loan,divident and internal ownership.

2.2. Investment preference

Many research has been done to investigate how investor aware of investment opportunity in market stock exchange. Aspara and Tikkanen (2011) invetigate 400

investors in Helsinki Stock Echange, who own shares in more than 1.5 years. Their research explained investor behavior to firms which they choosed because they prefer firms that they know well event though the level of return and similar to other firms.Company identification is found to have a positive impact on individual determination to invest in the company;s shares rather than in other company's shares that have aproximately similar expected financial return/risk. Aspara and Tikkanen (2011) also found that the company identification is found to even elicit preparedness to invest in the company share's with lower financial returns expected from the shares than other companies shares. The Aspara-Tikkanen view gives approach by implementing corporate marketing, corporate branding and corporate identity research and taking them close to finance approach by investigating financing preference.

2.3. Reaction to risks

2.3.1. Behavior and preference to risk

React to risk. If investor have strong character, investor would invest more in portfolio and ignore how hard the risk would affect investment activity. Investor would react to risks also can be affected by investor's experiences, age, avalaibility of fund and investor's goals. Investor characters could be determined into four types by (Widoatmodjo, 2007), risk averter, risk taker with premium, risk taker and indifferent to risks.Whereas Bodie in Said (2013) described investor behavior in three types as follows:*Risk averse, investor who are reject investment portfolio that are fair games or worse. Risk neutral, investor judge risky prospects solely by their expected rate of returns. Risk Lover, this investors adjusts the expected return upward to take account the " fun " of confronting the prospect's risk.*

2.3.2. Risk Averter

The type personality who most afraid in facing risk. Generally speaking, invest in portfolio would bear risks, therefore person who categorised as risk averter would be better to not invest in share but can become a saver (person who deposit money in the bank). If person interest to invest, it is recommended to choose investment which bear low risk. Those investors who classified as risk averters, it is important to consider in choosing investment instrument with lowest risks and not for highest return. In other words, if an opportunity to invest, please do not accept investment which bear high risks and high return. Whereas if an opportunity to invest with low return and low risk, it is necessary to consider this type of investment.

If an offer to invest with unlimited return and it is free risk, it can be thought that this is the best choice for risk averter. These persons could be categorized investors who do not want to have risk and they tend to satisfy with return which

receiving from instrument with free risk. Therefore the person would identify their return as follows:

$$RR = Rf$$

WhereRR :*Required Rate Return* (demanded rate of return) .

Rf :*Risk free rate* (Return with no risk)

2.3.3. Risk Taker and Premium

This group can be classified as investors who are seeking risk and they are ready in facing risk but also having reserve to protect them in losing funds.

Investors expect that risks could be reward in earning as they sacrifice time, money and venture in taking risks. As the consequence the investors would receive return rate higher than risks involved. Investor with risk taker premium will always think return and risk at the same time.

Investors who classified to this group would think that they will face the risk if the risk could compensate to become return from investment instrument. Investor would reject an offer with risk free at any return as they believed that return from investment with risk free, would be low. Character of risk taker investors would always thought that risks will be compensated by return. Risk taker investors would sensitive to risks, therefore they will determine their return as follows:

$$RR = R f + R p$$

Where: RR = Required rate of return

Rp :*Risk premium*

Rf : Risk free

2.3.4. Riks Taker

Investors in this category also known as risk seeker or risk lover, they could be identified as person who tend to face risk. Investors seek risks by accepting high risk investment, however they still expect high return. These investors seek high return and do not aware too much in risks as they pay attention to high return. Risk seeker group would consider that as long as return is fair based on their investment, risk would be the second priority. In order to gie reward as risk taker group ignores risk level, it is necessary to expect return higher than risk taker with premium return.

$$RR = ER$$

The expected return for risk taker can be seen the following equation.

Where ER : *Expected Return* (expected earning)

RR : Required Return

2.3.5. Indifferent Risk (Risk Neutral)

Describing how the risk neutral group considers risks tend to feel indifference to response investment risk. Indifference group would never concerning return and risks. They will accept any level of return without considering any level of risks. In other words, this group can accept any level of return even with high risks they also would agree to have low return with high risks. This group will never considering risk bearing on their return. This group usually do not have investment orientation, but they still have attention to risks in neutral response. If we observe gambler behavior, even though they do not know their returns and they cannot predict the earning, but they still love to play and some of them really like to play as the hobby. Risk will not relevant to them. The gambler, unfortunately would invest all assets for uncertain return.

2.4. Stock market knowledge and diversification.

Diversification is the key point in risk of portfolio, because investor reduce risks by diversified portfolio without changing return. As Bodie in Said (2013) mentions "Diversification is" *whereby investments are made in a wide variety of assets so that exposure to the risk of any particular security is limited*.'" Diversification means assets being well diversified. Investors can increase thier assets as long as marginal revenue higher than marginal cost. Statman in Suryawan ,2003 states that the advantage of diversification can be achieved by reducing risk level. While the costs are associated to transaction costs. The opinion about diversification discuss that marginal costs are increased quicker than the increase in diversified portfolio. Furthermore Sharpe in Suryaman explain by diversified portfolio it is possible to reduce level of risks especially non market risk. If value of shares are worst than expected that means the other shares might be better than expected.

In general, the more shares in portfolio the more chances to have good shares, which possibly can be contradict to worst shares. Sharpe also explain that by increasing diversified,non market risks can be reduced, even though it is reduced proportionally. Moreover, Bart in Suryawan (2003) states that well diversified portfolio could help investor to minimize risk due to global economic crisis, national economic competition and management of firm.

In general, in order to minimize risk, the investor must aware that it is very important to choose good shares in creating portfolio and do not buy only one share but it is necessary to invest in several shares. Investor could expect high return by investing in several shares rather than only one share. Diversified risks also very important be considered by investor, because diversified risk can reduce

level of risks without reducing the return. It is important to aware that in business, there are two types diversified business risk. Diversified business risks could refer to investing in several good shares in controllable condition, whereas non diversified risk could refer to invest in particular share as investor could not avoid to invest in certain share.

2.5. The use of financial analysis

Using financial analysis tools for investor or the potential investors is important in order to help them knowing how to stock exchange. A research done by Alghalith et.al (2012) found that investor would behave as risk seeker, the use of financial analysis tools did not become a priority such as the use of data Standard and Poor 500 in the period of January 2000 to April 2010. This indicates that the use of financial analysis sometime be used in the decision making, but it is not compulsory to decide for investment. In contrast Wang et.als (2011) found financial analysts in China using informational accounting as a source most important information in investment analysis. Analysts in China believe that publicly available information could be financial position of the firm, industry, stock market data, surprisingly information from newspaper, journal and website were ignored by analysts.

Different result found by Salamouris dan Muradoglu (2010) in the UK that there was a strong relation and positive between herding behavior and the accuracy of predicted financial analysis. Therefore, it is recommended for manager or individual investor would relying on consensus and the manager must listen to financial analysts. Research done by Salamouris and Moradoglu reveals those who made decision by listen from others have small mistake in prediction, thus a more accurate and contributed to their reputation. Young analysts tend to listen to others as they want to show their competent to clients or their financial analysts collegues. The results found in their research very interesting in perspective earning forecast accuracy because they found that as hearding behaviour increases analysts's earning forecast accuracy increases as well. In terms of incentive to heard, the young analysts have a greater incentive to heard because they manage to appear competent among their collegues and clients. Character of young analysts is gaining experience and reputation without being exposed out in the open where any mistake would be obvious. On the contrary being far from the heard implies that all the actions are observable thus if something goes wrong everybody will know.

Another approach in the use of financial analysis in order to predict investors' performances or shares' performance, develop by Byarddan Cebenoyan (2007), using ROA, ROA adjusted industry, and return on equity (ROE) as tools to predict and choose which shares would have stable return.

Byarddan Cebenoyan used efficient operational approach of firm-sophisticated frontier base and researher used ROA adjusted ROA and ROE as comparison. Byarddan Cebenoyan concludes that stochastic frontier- as operational efficiency

measurement-has the strong negative value to absolut prediction error compared to three accounting measure. Cebenoyan emphasize that the analysts knowledge on operational efficiency of firm tend to more sophisticated than accounting simple ratio on ROA, AROA and ROE.

2.6. *Portfolio performance* and investor performance

Portfolio evaluation can be done by comparing to others portfolio. It is important to consider return and risks of portfolio in order to choose which one would be better than another. Elton and Gruber in Said (2013) explain that portfolio can be compared in two ways, these could be direct comparison and one parameter performance measure. In direct comparisons performance method portfolio performance can be measured in comparison between mutual fund and shares. However the two portfolio must have relatively similar level of risks. One parameter performance measure would evaluate portfolio performance using one parameter or certain measure. The parameter must be related to risks (could be total risk and systematic risk). Portfolio performance measure in cosidering risks caould Sharpe, Treynor and Jensen measurement.

2.6.1. Sharpe Index

Portfolio performance can be measured by comparing capital market line or reward to variability ratio (RVAR). Sharpe expalins that portfolio performance can be calculated by difference between return portfilio and risk free rate divided by variance portfolio or total risks. Sharpe reveals portfolio performance net return of portfolio, related to inerest rate on free risk and it is given sign S. Sharpe index could be seen in the following formula (Zubir, 2012).

$$Sp = \frac{Rp - Rf}{\sigma p}$$

Where:

- S_p = *Sharpe index*
- R_p = *return portfolio* atau tingkat pengembalaian pasar.
- R_f =Risik free rate
- σp = total risk which total of systematic risk dan unsystematic risk.

If portfolio well diversified, total risks equal to systematic risk and unsystematic risk is close to zero. Market portfolio also implies total risk would similar systematic risk, market risk called beta.

2.6.2. Treynor performance measure

Treynor is an index that could be used to measure portfolio performance. Treynor emphasizes that portfolio would be well diversified will give reward to volatility

rate (RVOR). Therefore Treynor explains series of portfolio performances, which is the result difeerences between net return portfolio and risk free rate divided by beta portfokio. Treynor performance index could be seen in (Radcliffe, 1990).

$$Tp = \frac{Rp - Rf}{\beta p}$$

- $\mathbf{T_p}$ =*Treynor performance index*
- R_p = *returnportfolio or return on market*
- R_f = *risk free rate*.
- β_p = market risk of *portfolio* or systematic risk portfolio.

To calculate Treynor performance index, it is necessary to assume that evaluation would be in a period due to portfolio return and risks nedd to be calculated in the longer period. If the evaluation period very short portfolio risks which measured in beta would give inappropriate result and it is important to measure normality of the return.

2.6.3. Jensen Performance Measure

Jensen performance measure concern about Capital Assets Pricing Model in order to measure portfolio performance. Jensen uses ALPHA (different return measure). Jensen ALPHA is absolut measurement to estimate upper and lower return which called buy-hold strategy considering similar systematic risks. Jensen ALPHA formula can be seen in the following: (Zubir, 2012) :

$$\boxed{a_p = R_p - [R_f - b_p\,(R_m - R_f)]}$$

The higher p and positive indicates the potfolio performance is best.

The equation can be reformed in the following

$$\boxed{R_p - Rf_= a_p + b_p(R_m - R_f)}$$

The equation shows risk premium portfolio affected by market risk premium. The value of a and b can be estimated using linear regression. Therefore data of portfolio must comsider market return and risk free rate. The highest value of a will be the best fortfolio.

RESEARCH METHOD

This research was undertaken in Makassar, South Sulawesi Province, Indonesia in June to November 2014. The indicators of variables were determined from prelimenary research to 35 investors in Makassar in March 2014 to identify

indicators which though by investors would be best fit to investors. A few change indicators were made to adjust the questionnaire for major survey in June to November 2014. In order to have 150 respondents, this research uses 17 broker securities which were operating in Makassar. Securities firms provide lists of investors who own shares to form portfolio. The securities firms also provide address of investors. The respondents own at least two company shares in the last two years have participated in the survey. The questionnaires distributed to respondents using securities offices, the broker distributed to investors to get the responses. After the questionnaires were filled, the respondent returned questionnaires to broker offices and the questionnaires collected by enumerators at securities offices. The completed questionnaires were analyzed using SPSS and incomplete questionnaires were verrified by enumerators if the respondents agree to be verified, if the respondents did not agree to be visited,, the incomplete questionnaires will not be included in further analysis. The usable questionnaires were analyzed using AMOS 20. In the structural equation modelling, indicators were selected for further analysis if its loading higher than 0.50 (Ferdinand, 2010)

RESULT

Table 1 shows respondent profiles which describe sex,age, educational back ground and married status.

Table 1
Respondents profile sex,age, education and status

No	*Respondents characteristics*	*N*	*Percentage*
1	**Sex**		
	Male	84	56.00
	Female	66	44.00
	Total	150	100
2	Age		
	17- 25	24	16.00
	26– 35	48	32.00
	36– 45	55	36.67
	>45	23	15.33
	Total	150	100
3	Education		
	High School	45	30.00
	Diploma	6	4,00
	Under graduate	89	59,33
	Post graduate	10	6,67
	Total	150	100
4	Status		
	Not married	48	32
	Married	101	67.33
	Widow	1	0.67
	Total	150	100

Source: Developed for this research

The participant of this survey have similar proportion between male and female, they are in the period of productive age, most of participants graduate from university and majority of respondents have married.

Table 2
Respondents profile member of family, experience, monthly income and core business or job

No	*Respondents characteristic*	*N*	*Percentage*
1	Members of family:		
	None	53	35.33
	1 person	20	13.33
	2. persons	35	23.33
	3. persons	34	22.68
	> 3 persons	8	5.33
	Total	150	100
2	Investors:experience		
	6 months	10	6.67
	1 – 5 years	90	60
	6 – 10 years	38	25.33
	11 - 15 years	12	8
	> 15 years	0	0
	Total	150	100
3	Monthly income:		
	< 5 million rupiahs	73	48.67
	6 million – 10 million rupiahs	51	34
	11 million – 15 million rupiahs	18	12
	> 15 milllion rupiahs	8	5.33
	Total	150	100
4	Other businesses		
	None	33	22
	Chemists	1	0.7
	Drinkable water	4	2.7
	Private companies workers	36	24
	Students	1	0.7
	Business owners	18	12
	Public servant	6	4
	Professional	8	5.3
	Property	7	4.7
	Shops	3	2
	Entrepreneurs	33	22
	Total	150	100

Source: Developed for this research

Table 2 indicates that most of respondents have two or three members of family, which is ideal number for the Indonesian family. The majority respondents have less than 5 year experience in the stock exchange businesses, which still lacking

experience in trading of shares. Monthly income of respondent seems to be less than 5 million rupiahs, that is low income in which respondents must consider carefully to invest in shares. Respondents in this survey have a variety jobs but most of respondents are entrepreneurs and business owners, respondents seems to invest in stock market thought that stock exchange is their second businesses.

RESPONSE TO INDICATORS

Mean and standard deviation of each question can been seen in table 4. Table 4 indicates that variable on investment behavior for the item "sell and buying shares is side business which give side income" with the value of 4.213. The second rank is given to item" Invest in shares will create financial satisfaction and passive income with the value of 4.040. The other 4 indicators were scaled less than 4.0. Furthermore respondents gives high standar deviation on item chance to make profit (1.101) due to variation on responses. For variable "reaction to risk" indicates that investor in Makassar aware that investment in stock bears high risks but they believe this investment can create profit, was given highest score of 4.113. The other 5 indicators were scaled less important such as be patient,ignore economic condition,the roles of investment manager, risk of investment in shares similar with other businesses and economic condition affects decision. For the variable stock market knowledge, the item on knowing investors right and their obligation and manager right and their obligation were scaled 4.120 which is high rate, and second rank is given to the item investment manager gave clear trend on share price with the value of 4.100. The third rank in this variable, is given to item stock echange support national economy, therefore the investors participate in stock exchange, with the value of 4.086. The other three indicators were scaled below 4.0 indicates that samples in this research not knowing well stock exchange, not obey rules in stock exchange and aware of stock exchange bear high risks. The highest standard deviation is 1.004 and the lowest standard deviation is 0.722.

Variable the use financial analysis, the highest score (4.180) was given to the item "in general financial analysis is used as consideration in decision making of investment. The second rank score (4.100) is given to item financial analysis help me in making investment decision. The third rank score (4.048) is given to the item financial analysis is an effective tool to know companies profile. The other three items were scored below 4, which indicate the responses were less important. Furthermore, variable investors performances the item "high yield" having score 3.913 is the highest response for this variable. The second rank is item "yield higher than other businesses" with the score of 3.820. The third position given to item "moderate yield " with the score of 3.780. The other three indicators were valued lower 3.7, which indicate less important.The highest standard deviation for this variable is 0.947 for the item moderate yield, and the lowest standard deviation is 0.732 for the item high yield.

Table 4
Responces to research indicators

No	*Variable*	*Indicator*	*Mean*	*SD*
1	Investment behavior	Chance to make profit (X11)	3.766	1.101
		Satisfied and passive income (X12)	4.040	0.731
		High risks(X13)	3.940	0.796
		Give satisfaction and life style (X14)	3.966	0.870
		Other business and side income (X15)	4.213	0.728
		Pleasure activity (X16)	3.873	0.907
2	Reaction to Risk	High risk and hope profit (X21)	4.113	0.755
		Patient to wait (X22)	3.760	0.783
		Ignore economic condition (X23)	3.146	1.125
		Important manager roles (X24)	3.420	1.100
		Stock risks similar other businesses (X25)	3.840	0.844
		Economic condition affects decision (X26)	3.886	0.945
3	Stock exchange knowledge	Knowing stock exchqnge well (X31)	3.813	0.789
		Obey the main rules (X32)	3.840	0.941
		Support national economy (X33)	4.086	0.896
		Stock is fragile investment (X34)	3.773	1.004
		Understand investor right and manager (X35)	4.120	0.722
		Manager gives clear information (X36)	4.100	0.792
4	The use of financial analysis	Financial analysis for manager (Y11)	3.986	0.897
		Analist helping decision making (Y12)	4.100	0.910
		Financial analysis be considered (Y13)	4.180	0.897
		Making analysis before sell and buy (Y14)	3.913	0.968
		Read prospectus before buying (Y15)	3.920	0.863
		Financial analysis as tool (Y16)	4.046	0.830
5	Investor Performance	High yield (Y21)	3.913	0.732
		Moderate yield (Y22)	3.780	0.947
		The best yield (Y23)	3.680	0.929
		Unsatisfied yield (Y24)	3.393	0.858
		Valuable yield (Y25)	3.646	0.724
		Yield higher than other businesses (Y26)	3.820	0.890

Source: Developed for this research

INDICATOR SELECTION

In achieving goodness of fit criteria, it is important to evaluate the loading for each indicator in order to ensure that all indicators can be used for further analysis (Hair et.al 1998). In the beginning of the model not all indicators having loading higher than 0.50. Afew indicators have loading close 0.50 would be used for next step in analysis. Table 5 indicates that indicator selection will exclude indicators

with far lower than 0.50.For variable investor behav iour three indicators (X11,X12 and X13) will be excluded because its loading far lower than 0.5. In the variable reaction to risk, X2.3 will be excluded and for the variable stock exchange knowledge all indicators will be included. Furthermore for variable the use of financial analysis, four indicators (Y11,Y14,Y15 and Y16) will be excluded for further analysis. Finally, variable investors performance two indicators (Y21 and Y25) will be excluded for further analyses.

Table 5
Indicator Selection

No	*Variable*	*Indicators*	*Score*	*Decison*
1	Investment Behavior	Chance to make profit (X11)	-0.198	Excluded
		Satisfied and passive income (X12)	0.010	Excluded
		High Risk (X13)	0.346	Excluded
		Give satisfaction and life style (X14)	0.515	Included
		Other businesses and side income (X15)	0.642	Included
		Pleasure activity (X16)	0.518	Included
2	Reaction to Risk	High risk and hope profit (X21)	0.470	Included
		Be patient (X22)	0.412	Included
		Ignore economic condition (X23)	0.110	Excluded
		Roles manager inportant (X24)	0.431	Included
		Stock risk similar other businesses (X25)	0.621	Included
		Economic condition affects decisionX26)	0.776	Included
3	Stock Exchange knowledge	Knowing stock exchange well (X31)	0.620	Included
		Obey the main rules (X32)	0.639	Included
		Supporting national economy (X33)	0.641	Included
		Invest in stok is fragile (X34)	0.419	Included
		Knowing investor right (X35)	0.660	Included
		Manager gives information (X36)	0.589	Included
4	Financial Analysis	Financial analysis for manager (Y11)	0.272	Excluded
		analysist helping decision making (Y12)	0.651	Included
		Financial Analysis be considered (Y13)	0.829	Included
		Analysis before sell-buy(Y14)	0.293	Excluded
		Read prospectus before buy (Y15)	0.211	Excluded
		Financial analysis as tool (Y16)	0.002	Excluded
5	Investor performance	High yield (Y21)	0.107	Excluded
		Moderate yield (Y22)	0.604	Included
		The best yield (Y23)	0.588	Included
		Unsatisfied yield (Y24)	0.704	Included
		Valuable yield (Y25)	0.367	Excluded
		Yield is higher than other businesses(Y26)	0.515	Included

Source: Developed for this research

VARIABLE RELATIONS

The variable relations can be seen in table 6

Table 6
Variable relations this survey

Dependent		*Independent*	*Estimate*	*S.E.*	*C.R.*	*P*
Finanuse	<—-	Invbehave	.707	.256	2.761	.006
Finanuse	<—-	Stockknow	.191	.128	1.496	.135
Finanuse	<—-	Riskreaction	.391	.270	1.446	.148
Invperformance	<—-	Finanuse	-.253	.138	-1.837	.066
Invperformance	<—-	Invbehave	.851	.280	3.038	.002
Invperformance	<—-	Riskreaction	.641	.266	2.412	.016
Invperformance	<—-	Stockknow	.400	.119	3.355	***

Source: Developed for this research

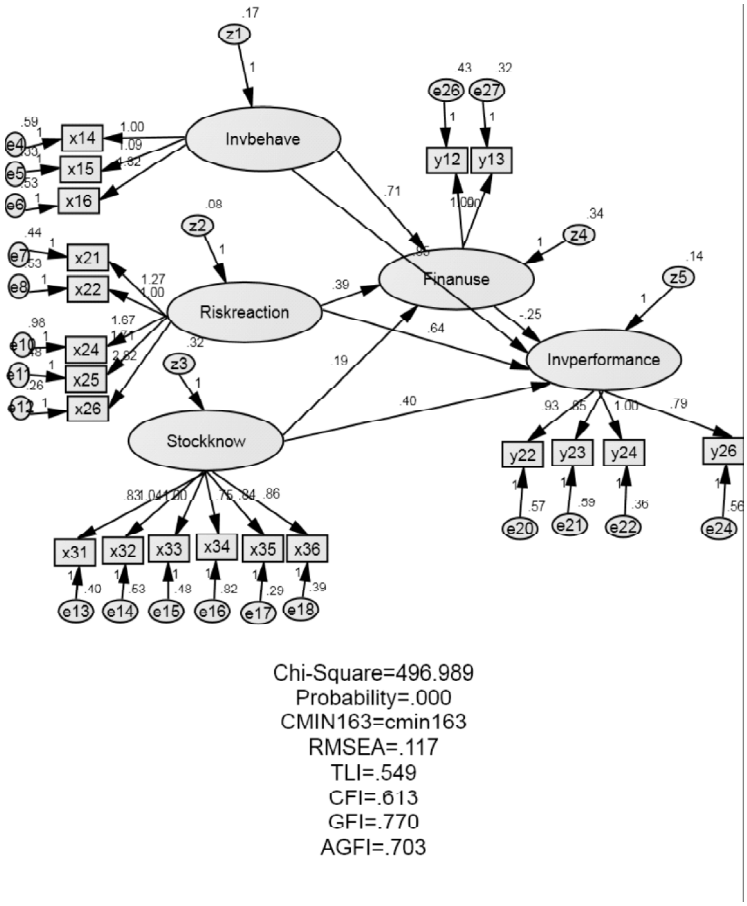

Figure 1: Shows results in variable relations in this research

Source: Developed for this research

DISCUSSION

Relation investment behavior and the use of financial analysis

Table 6 indicates investment behavior affects significantly to the use of financial analysis. Investors in Makassar seem to be rational in thought that invest in stock exchange will create passive income which can satisfied its financial need. Invest in shares would give second income for investors in which investors would feel satisfied and having life style. Having shares in several listed firms would give feeling secure for investors as they arrange few shares in making a portfolio. This investment would become enjoyable businesses as they earn profit in prominent firms. Interesting reult found in this research that most investor own variety businesses, therefore they enjoy invest stock as they believe that it will give second chance to make profit.

Result found in this research consists of result in Uddin and Choudhury (2008) in Bangladesh which reveals that traditional approach and rational thought of family in creating trend of investment in listed firm or big firms in Bangladesh. Although, this research concern of American Anglo which contradict to rational approach in Bangladeshin terms of implementing corporate governance in stock market and accounting infrastucture in supporting appropriate environment for financial market.

This research also concist to the result found in Aspara and Tikkanen (2011) in Helzinki Finland that individual motives to invest in shares of firm due to the hope in having return/risk – especially when the investor try to evaluate emotionally the benefits of their investment activities.

Investor in Makassar tend to think consciously of stock investment as limited funds due to the majority of investors have monthly income less than 5 million rupiah. Although they have small family members, they thought that the funds need to invest in less risk securities as they lacking experience and they did not know well the trend of stock market, they also still young Investors which need to learn more in stock market. In contrast, most of investors have core businesess not in stock exchange, they value stock as the second businesses and they thought that stock businesses would give opportunity to achieve self actualization and enjoyable investment which can create side income. As the consequence of stock businesses as second business, majority of investors in Makassar behave not conservative because they invest in the businesses if they feel the money will be thorougly protected. Thefore this research emphasize that investors in Makassar would affect emotionally if investment will make profit, they will invest money easily, but the situation seem to be chaos or tend to loss, investors will withdraw from stock market. Most the investors belief on momentum theory and only few belief on contrarian theory.

Relation react risk and the use financial analysis

The response to variable react to risk in this research, sample give high value at the item to have profit, the risks also very high in stock market and low value in ignoring economic codition. Investors in Makassar become more silence to wait the return and they give important role for investment manager and the investors believe that economic condition affects decision making process. Although response to variable react to risk high, the relation did not significant means that investor seem to reluctant to use financial analysis.

Investor character to risk seems neutral as they value for item high risk can have high profit. Most of investors in Makassar relying on investment manager advice therefore they did not want to use financial analysis. Investor also patient in having facing risk and they aware of national economi condition for making decision to invest.

Result of this survey consist of result found by Hui et.al (2010) in Hong Kong which investigated response to risk found that character of investor for shares in property business is risk seeker but for the real estate shares, the investors neutral to risks. Only few of investor Makassar can categorizes expert investors (to whom have 10 years experience), the majority investors are lay investor or learn to invest. This research also concist with the reslut by Diacon (2004) in England found that indeed experienced investors and lay investors have real differences in facing risk for financial service product. However both type of investors concerned of reliability of financial service provider.

Respondents in Makassar seem to risk neutral, react to risk simply but they look at stock market thoroughly as they believe that making profit not olny depend on investment manager but also depend on principal or listed firms. Therefore the investors believe that it is not necessary to be panic in facing business risk and financial risk in stock market. In other words firm performance can also be affected other aspects which do not be control by stock echange, therefore investors feel to be free in viewing failure in stock exchange.

Relations knowledge stock exchange and the use of financial analysis

Respondents gave high score to the item investor right and investment manager gives clear information to investors. The investors also thought that invest in stock exchange can support national economy. The investors had already known that invest in stock echange is fragile, but they know stock echange well and they obey stock exchange rules, there is an opportunity to earn from stock exchange business. In conrast however items on stock exchange knowledge did not affect significantly to the use of financial analysis. Limited ability of investors Makassar made them use financial analysis in simple way.

This research concists of the result found in Hoffmann and Fieseler (2012) in Switzerland that financial community can create image of stock exchange affects by firm stakeholder,management priority emphasize, knowing stock market, mage and reputation must be maintained, public relations and investor communications.

Most of Investor Makassar have their core business and invest in stock as side business. Investors known well their core busineses, most of them graduated from university, well educated and they can make decision thoroughly.Investor can read financial report, know businesses in general and understand national economic condition. Because they understand items in stock exchange knowledge, investors thought that finacial analysis can be used supporting knowledge, therefore stock exchange knowledge did not affect significantly to use of financial analysis.

Result in this survey is contradict to result found by Wang et.al (2011) in China, conclude that financial analists in China actively seek information through formal and private research. The most important sources of information for investment alanysis, is accounting information. From analysts point of view information public could be firm financial report, data information shares market of firm, this can explain in general profitability rate , in contrast they can aslo followup visit firm , information from board of directors meeeting to get clue of firm prospects. Result in China can not be have similar method found in makassar, because investor tend to apply the simple thought and they would let investment manager execute their wisdom.

Relation the use of financial analysis and investor performance

The use financial did not affect investor performance because investor did not expert in using financial analysis in stock exchange. Investors have less than 5 years experience in stock exchange indicate that investor are still learn about how to invest in stock, they do not expert in using financial analysis technique in achieving better performance.

Item for financial analysis would help decision making and it can be used in decision, were valued high rank by investors. Therefore the use of financial analysis is valued important but it did not significantly affect investor performance.

This survey is conradict to result found in Salamouris and Muradoglu (2010) in England that there is a strong relations and positive between uniformly decision making behavior and accuracy in financial analysis prediction. Therefore the recommendation to manager and indidual investor would be relying on what they beleif on and manager must listen to financial analysts. Financial analysts in Salamouris and Moradoglu research found that they make decision after listen to many contributors seem to have minor error,accurate they will contribute to their reputation.

Young financial analysts tend to listen as they want show to their client and other financial analists about their competencies. In other words young financial analysts gain their reputation without showing in the open making error as usual. Whereas investor or financial analysts who did not follow others seem to predict in accurate and everybody knows.

Relation investment behavior and investor perfornance

Variable investment behavior affects significantly to investor performance, which means the rise of responce given to investment behavior will affect the increase of response for investor behavior. To achieve investor performnce, it is important to ensure that ensure that investor could be satisfied and enjoy life style by investing in stock exchange. Having shares in stock market must give pleasure to investor, even though most of investors argue that stock market is side businesses, there will be chances to receive side income. Investors in Makassar are not prominent investors, invest in stock exchange is thought as side job, pleasure, creating satisfacton and well established life style.

It is interesting to note that these thought could able to increase investor performance, even though a few respondents believe that stock exchange can give the best income, some respondents beleive stock market can give moderate income and several respondents thought income in stock market is higher than return in other businesses. Only few respondents value that their income is unsatisfied. These responses reveal that investment behavior did not aggressive and rational could give high investor performance in Makassar. Therefore most of investors behave neutral to risks and they did not use financial analysis commonly but they have appropriate stock exchange knowledge.

Result of this research concists of result found in Du (2012) in the United States of America, indicates that momentum theory did not affect by how investors value return and risk from their investment. Momentum theory gives investors to buy shares rationally and do not expect too high in achieving capital gain. Investors may make mistake in investment by expecting return too high and investors can behave under pressure in facing risks. Investors in Makassar aware momentum theory but they do not conservative to invest in shares.

Relation variable reaction to risk and investors performance

In the model result indicates positve and significant relation between variable react to risk and investor performance. Investors aware that if react to risk increases, the performance of investor will also increase. Although invest in shares would bear high risk, the opportunity to make profit is still exist. If there is an economic shock, the investors will wait until they achieving good economic condition and they did not panic to loss because investment manager will give them advice to

prevent loss. Investors also consider economic condition in making decision to invest as they aware risk in stock exchange aslo similar to risks in other businesses. This research reveals that all of reaction to risk observed in this survey will help in acheiving high investor performance.Investors are neutral to risk and facing risk return wisely could increase investor performances. Invertors in Makassar seek scrutiny information and investigate risk carefully to achieve high investor performances.

The results found in this reasearch, are contradict to result by Algalith et.al (2012) in Trinidad and Tobago, which indicates that investors are risk seeker, changes in investment preferences will not always make return risk change. However, the result in Makassar concists of result found in Sayim et.al (2013) in the United States of America, which reveals that if standard deviation increase in component rationsl sentiment investors in America , will give negative effect in volatility in car and finance industries. The researh reveals that investor have optimistic to economic condition which can create positive hope for investors, reducing uncertainty level or increasing investors performance.

Relation variable stock exchange knowledge and investor performance

The model shows there is a positive and significant relation between stock exchange knowledge and investor performance. Investor in Makassar aware that investor performance can be increased if they know well the business character in the stock exchange and they know stock exchange rules. Investor performance would also could be increased if they thought stock exchange would support national economy, althought they know that stock exchange business is fragile. Moreover investor performance also can be increased if investor know their right and oblligation, investment manager right. It is also important to note that if investment manager provide clear information on share price trend, investor performance would increase.

The investor in Makassar have a variety jobs such business owner, public servant, entrepreneur, developer, shop owners, and other profession. Most of investors have basic knowledge of stock exchange so they can increase their performances. In contrast investors have less than 5 year experience in stock exchange so they did not expert in stock exchange businesses.

This research concists to result found in Wang et.al (2011) in China, which conclude that financial analysts in China actively seek information through public and private line. The most important sources of investment analysis is accounting information.

In this survey gives insight that investor in Makassar need to know stock exchange rule and they must obey the rules. Shares price information can easily be found in newspaper, television. However thorough analysis can be done by investment manager to let investor make decision in the right track.

CONCLUSION

Investment behavior affects sigificantly to the use of financial analysis and investor performance due to the character of investor as neutral to risks and thorougly investigated investment opportunity. Reaction to risk did not affect the use of financial analysis but it affects significantly to investor performances, due to lack investor experiences in financial anaysis. Stock exchange knowledge did not affect the use of financial analysis but it affects significantly to investor performances due to investors relying on investment manager in order to decide which shares to invest. Finally the use financial analysis did affect investor performance due to investor did not keen in gaining knowledge in stock exchange and they tend to thought that stock exchange earn them second income.

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