

## **Study of Biorhythm Cycles That Influence on Decision Qualities of Investment Managers in Mutual Fund of the Iranian Capital Market**

**Hossein Vazifedust<sup>1</sup>, Ali Alizadeh<sup>2</sup>, Abdolmajid Dehghan<sup>3</sup>**

<sup>1</sup>Assist Prof, Department of Business Management, Science and Research Branch, Islamic Azad University, Tehran, Iran

<sup>2</sup>Department of Business Management, Science and Research Branch, Islamic Azad University, Tehran, Iran

<sup>3</sup>Department of Business Management, Shahr-e- Rey Branch, Islamic Azad University, Tehran, Iran

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### **ABSTRACT**

The present research attempts to investigate Biorhythmic cycles that influence on decision making of investing managers on investment funds in Iran's capital market. Since decision making is considered as the management main elements and sometimes equivalent to management itself, it is essential that researchers pay a specific attention to this field because if decisions are made in an optimized and effective form in an organization, it first cause growth and expansion of organization and finally will cause rapid progress in entire organizational fields. In this research, 50 questionnaires are distributed among samples. The Cranach's Alpha of data gathering device is accounted equal to 0/792 which signifies reliability of data gathering device. In this research, the research method is surveying from the viewpoint of descriptive nature and applied from the viewpoint of target. Using SPSS software package, the results of structural model indicates that the entire research hypothesizes and presented intellectual models are approved. The research findings signify that the Biorhythmic cycles (emotional, intellectual and physical) are effective on manager's decisions. Also this research results indicates that each of Biorhythmic curves are effective on manager's decision making in a different amount. Paying attention to carried out tests and the gained statistical average, the intellectual cycle appropriate the most effect and the physical cycle appropriates the least effect; by the way, it is known that the managers having high certificates implemented the most amount of intellectual analysis in their decisions.

**KEY WORDS:** Biorhythmic cycles, Decision making, Behavioral factors

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### **INTRODUCTION**

Decision making is one of the most important management factors in organization and the managers who success to make optimized effective decisions in organization can guide it toward success. Many scientists has talked about decision making importance that among the most famous individuals we can refer to Herbert Simon. Simon knows management corresponding with decision making and this subject indicates the importance of decision and decision making in organization. Now this subject is important that decision making action is made under various conditions and states from individuals' side and this difference in individuals' states can find appearance in various fields such as intellectual, emotional (sensuous), physical fields and etc. this topic bases the Biorhythm science configuration. Biorhythm (biological rhythm) is called to a set of intellectual, emotional (sensuous) and physical curves which specify different states of human in sinusoidal form from birth to end time of life. Considering this matter that decision making originates from human's different states (especially managers), in this research we seek for investigation of the effect of Biorhythmic cycles on of investment managers in mutual fund of the Iranian capital market decision making until hereby we can specify the best conditions and times for decision making for this managers in a scientific way until the maximum effectiveness occurs in their decisions.

In reality investing of investment funds in the investment market of Iran is the most main motivation of researchers for performing this research for access to amount and effective degree of bioritmic cycles on quality of decision making of managers that in which decision making play role as a most important factor of success in perform issues. Since how much decisions of a manager was better from quality point, the effective and valuable of an investments funds increases, in reality the main issue is approving and

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\*Corresponding Author: Abdolmajid Dehghan, Department of Business Management, Shahr-e- Rey Branch, Islamic Azad University, Tehran, Iran

measuring of the amount of effectiveness of biorhythmic in effective traits on the decision of these managers in another words we can say the necessity of this research in the importance of quality of decision in setting of investment funds and measuring the effective factors in the increasing of these quality. In finally researchers tried for answering to this question that biorhythmic cycles that are effective in different mind, trait and physical moods are they effective on the quality of decisions of managers of investment funds?

## 1- LITERATURE REVIEW

It is years that Biorhythm science has penetrated in arena of various sciences and it is getting its state fixed in various fields such as management and now how do Biorhythm and its various cycles (physical, intellectual and sensuous) effect on perceptual decision making of investors (Feghhi Farahmand, 2005). Considering the findings of Biorhythm science, individuals reveal different behaviors in various times in various fields from themselves and now this internal change can be the reason of external behaviors in various fields and naturally, the accurate and scientific cognition of these behaviors cause increase in cognition from the individual's mental black box (investors of investing market) and understanding their external reactions and behaviors (Alimajidean, 1999). The investors reveal their various decisions and reactions in specific periods of time and in various Biorhythmic states that these differences originate from their Biorhythmic cycles.

Biorhythm or biological rhythm claims that life of each individual is under effect of three rhythmic biological cycles called sensuous, intellectual and physical and it facilitates the duties which are dependent to each of these periods via determination of these periods and the Biorhythm science can have effective applications in relation to individual's intellectual decisions.

### 2-1 General Concepts of Biorhythm

Each of triple Biorhythm cycles move according to sinusoidal wave. Each frequency of this wave has three areas. The first area is the positive or powerful one which sets above the zero point, the second area is the negative area is cheap which is set under the zero point and the third area is the critical area which set accurately on zero border and it is the passage stage from positive area to negative area or vice versa. These points are very sensitive and on these days nothing is guessable; the nature, habitude and human's intellectual, sensuous and physical behaviors changes tremendously. Normally the critical moments of human's life are the days in which each of curves goes from positive state to negative state. Since each of cycles has different frequencies, human's Biorhythm diagram can have different condition in each day and requests its specific interpretation. Now if entire individual Biorhythm curves establish in the most negative possible state, it means that body's vital energy is in the worst and most vulnerable condition and human should not trust on his intellectual, spiritual and physical reactions according to habit (Alimajidean, 1999).

#### 2-1-1- Physical Cycle:

23 days of positive area is the proper time for performance of heavy corporeal activities, resistance toward difficulties and sicknesses, eager for sport, readiness for travel, operation, dental affairs and etc. In the negative area of fatigability, there is the need for rest. In the crisis point, the corporeal ability is questioned; also more talent for making errors, being talented for accident and aggression is the specification of this region.

#### 2-1-2- Emotional Cycle:

In 28 days the positive area, there is tendency to participation in set of friends and group activities, general good will, happiness, balance and compatibility, preparation for performance of tests and matches, good and proper general appearance and in the negative region, the reverse state is predominant.

#### 2-1-3- Intellectual Cycle:

In 33 days of positive area, there is the maximum activity and intellectual and intellectual force. The new subjects are learnt rapidly with preparation: the specifications of this period are the better memory, clear and brilliant thoughts. The negative area includes the favorable time for fixation of what is learnt before and the crisis point, decrease in concentration ability, intellectual chaos, very improper time for decision making, need for more time for accurate intellectual affairs (Maleki, 2010).

## **2-2 Biorhythm Target**

The goal of drawing Biorhythm cycles (biological rhythm) is determination and calculation of individual's rhythm cycles, determination of rhythm's effect on personal states, calculation of optimized and critical days, optimized implementation of activities, absence of implementation of some activities in critical times and prediction of weakness and power times. According to carried out researches and the achieved results, it is determined that the life quality and activities can be raised by consideration of high and low points of these cycles and accommodation of these activities with them. For example it should be tried to set the tests and chief cases in the interval that intellectual activity is in a high level and it should be tried to avoid talking about chief emotional cases at the time, when the sensuous diagram is in low or inappropriate condition. Today even the successful managers draw the aforementioned triple diagram permanently for each of their staff to refer their daily activities to them in accordance with their intellectual, emotional and physical conditions. The staff can also proceed for decision making and analysis and programming in the days that their intellectual diagram is in positive points and performs the duties needing inventiveness in these time intervals being informed about the time their emotional cycle is in positive points and considering this matter that the individual's creativity and innovation amount is in its maximum in these days (moradean ,1998).

## **2-3 Decision making and intuitive decision making Processes**

What is decision making? Response to this question is different from various dimensions. One initial perception about decision making is "selection action". This interpretation considers selection one choice of possible choices that "in decision maker's believe has the best result" as the main function of decision making process. The other management decision making is "finding the optimized solution for the problem". This decision making type include information processing related to the problem and access to the optimized response forms the total work logics. The third approach adds intellect to the previous concepts and considers learning as a part of decision making process by description of function of neural networks.

The decision making systems from the view of used methods are dividable to two groups of mathematical pattern and perceptual patterns. There is another group exposed to discussion in form of combination of these two approaches.

The "Mathematical" patterns is mainly used in conditions with definite confident conditions and decision making parameters in quantitative form in which the decision maker attempts to perform the optimized problem solution. The approach based on "intellectual" theories based on problem solving is in intuitional and judgment form and this approach advocates talks about more accommodation of their methods with real world. In the decision making patterns based on intuitional and perceptual theories, the decisions' quality is extremely following up realization and deduction of investor and decision makers from environmental phenomena. Thus if the decision maker's realization from real phenomena would be more correct and has more accordance with realities of outer world, the success probability of made decisions will increase. One of factors causing investor's realization from real world in decision making process is intellectual models which briefly introduced because of its importance and the essentiality of its cognition in this research.

### **2-3- 1-Intellectual Models:**

The intellectual models can be defined as representation of reality which decision makers use them for giving meaning to signs of received information. The intellectual models organize arguments, interpretations and finally acts (moghadam ,2007).

Members of a group with a common intellectual model gets involved in the common realization from group's nature, norms and its relations and similarly use the range of language, procedures, artifacts and common stories. The common meaning list that constitutes these groups is taken from intellectual models and the most important specification of intellectual models is decrease in complexity.

The vicinity effect of Higgins expresses that entire action we perform are finally based on decisions we make considering the reason we considered for problem and the achieved results from this matter that solves this problem.

### **2-3-2-Decision making Patterns**

In investigation stages of effective parameters in individuals' decision making process, we face with several groups of factors. These groups of factors include:

Factors related to environment

Factors related to organizational fields

Factors related to decision makers specifications

In many of studies and books, it is proceeded the structure investigation and decision making pattern of relate variables to environment and organizational fields. We had the cognitive perspective (psychology) in this research in investigation and cognition of decision making pattern cognition of master managers that is related to their personal specifications and is a function of intellectual model of decision making. The cognition perspective opens our minds' widow somehow and makes us able to find out that what do people think about, how they think and probably how can we effect on that thought. The cognitive theory is based on this hypothesis that feelings and problems that occur for us are result of our thought. Therefore with alteration of thought processes (intellectual models) individuals can generalize their decision making behaviors and finally each of these specifications and their nature will be introduced as an effective parameter in their decision making behavior.

### 2-3-3- Intuitive Decision Making

The intuitional decision making refers to the roles in which individuals make complex decisions in unconfident environments. Decision making is a total rational process and does not care entire information but the decision maker applied the mental shortcuts in this process (mazroee ,2005).

The there are completely justified reasons for application of intuitional processes specially when the decision making time is limited.

### 2-4 Research background

Sub topics in financial behavioral field is studies related to identification of investors' decision making process and design and expression of their decision making process in unconfident conditions. The first studies in field of investor's behavior returns to seventies. Le Baron, Farrelly and Gula studies proved that the risk taking degree of individuals is a function of individual's internal factors and has no relation to external market considerations.

Findings of Lewellen, Lease and Schlarbaum indicate that there is a significant relation between investing preferences of individuals and age, sex and education.

Epstein has investigated the effect of social studies on real investor behavior. Findings of his research expresses this matter that company's annual financial reports has no effect on investors' decision making and is worthless.

Merilkas and his cooperators tried to identify the effective factors on real investors' behavior in Greece capital market via survey study. The result of their research indicates that individuals' decision making criterion in purchase of a share is a combination of economical criteria and psychological criteria. They found out that investors' decision making is not permanently n arranged and rational decision.

Decision making about this matte that is an idea can be an opportunity requires the judgments made under condition of uncomfot and complexity (Das , et al 1997 Elision Chel and Heys 2000).

When there is no time for involvement with long analyses.

When many much information is in access.

When the case does not seem very important.

When there is low information in access for decision making.

When some thing in problem brings us an innovative thought.

Hachikson (1999) discuss about usage from the initiative force at the time of strategic decision making and form of its usage for making world controllable or when we deal with a dynamic work (Richard and Alen 2006).

The specification approach expresses that entrepreneurs can be identified with specifications such as tendency for danger, need for success and control centre (Katerin and Christine 2007).

The cognitive approach is related to a method which entrepreneur prefers for gathering processing and evaluation of information centre (Katerin and Christine 2007).

Prakaniz (1989) deals with the conditions under which people used more from their initiative power instead of usage from systematic analysis.

These conditions include the following cases: (Richard and Alen 2006).

Cognitive tendencies of individuals are effective on their decisions for triggering a risky work. Although the others has indicated that individuals' cognitive tendencies is effective on triggering a risky work (such as Simon, Hofton and Akino 2000)but this confident does not exist that entrepreneurs indicate the similar cognitive tendencies. (Houghton , et al 2000).

Feranzoy (1996) talks about initiatives as mental shortcuts for time saving that change complex arbitrations to total simpler rules (richard , et al 2006).

Researches about decision making have indicated that entrepreneurs do permanently use simplifying Heuristics and most errors indicate perceptual deviations (katrin , et al 2007).

Among the performed researches in our country, we can refer to a research called investigation of psyche factors effective on individual's intent for investing in Tehran Stock Exchange that one of variables in this research is biorhythmic factors and the results of this research indicates that biorhythmic factors is effective on intend of investor individuals (dehghan , 2007).

## **2- RESEARCH METHODOLOGY**

The research method in this research is surveying explanatory from nature view and is applied from target view. The survey research is subset of explanatory researches and the researchers' attention is attracted more on those chief points or factors and/or meaningful ones which were effective in a form in past and present. In fact this method of research surveys the action and reaction among the factors creating change or growth and expansion about a specific field in depth. The statistical universe in the considered research is entire investing managers of investing Funds in Iran who are active in Iran's Stock Exchange. The number of statistical universe in this research is about 70 members.

In this research, the simple random sampling method is used. The sample volume with 95% confidence interval and with proportion of  $P= 0/5$  and according to the limited society formula is estimated almost equal to 40. But, due to increase in confidence degree in this research, 50 member of investing managers completed the questionnaire of this research.

In the present research, the needed information is gathered in two stages. In the first stage, the researcher gathers the subjects related to review of literature by referring to library resources, magazines and scientific articles from valid internet sites. In the second stage, the questionnaire device is used for data gathering. The used questionnaire items are edited according to quintuple Likert Scale. The remarkable point in design of questionnaire of the above research is that: because some research (biorhythmic science) variables are not rational and realizable for respondents, the researcher first provides a summary booklet about biorhythmic science and gives it to respondents and designs (correct-incorrect) sentences under the aforesaid booklet to be sure that they read it and then after gathering the above questionnaire, the main questionnaire is presented for those who only had the least needed mark from the above said test (who realized biorhythmic science totally).

### **3-1- Research Variables and Its operational Definitions**

#### **3-1-1-Dependant Variables:**

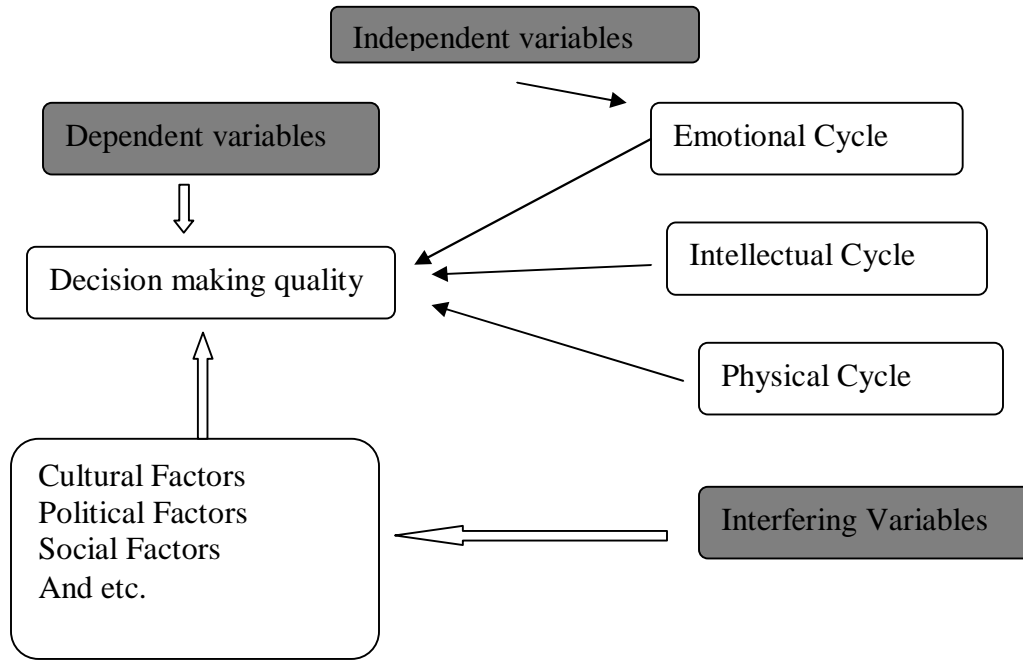
#### **3-1-2-Decision making Quality:**

The decisions possessing specifications such as optimality, effectiveness and etc, are called qualified decisions.

#### **3-1-3-Independent Variables:**

Intellectual, emotional and physical cycles are independent variables so that each human has three cycles: 23physical activity periods, 28 emotional period and 33 intellectual period that half time period of each of these cycles is "positive" and the other half is "negative". The intellectual, emotional and physical cycles indicate different states of individuals in their various time periods in life time which is measured based on questionnaire questions.

**4- RESEARCH MODEL**



**4-1- Research Hypothesis**

**4-1-1- The Main Hypothesis**

There is a significant and positive relation between biorhythmic factors and quality of managers' decisions.

**4-1-2- Secondary Hypothesis**

- 1- There is a significant and positive relation between master managers' intellectual cycle and quality of their decisions.
- 2- There is a significant and positive relation between master managers' emotional (sensuous) cycle and quality of their decisions.
- 3- There is a significant and positive relation between master managers' physical cycle and quality of their decisions.

**5- Findings**

In this part, it is first proceeded to situation of chief sample demographic variables such as: sex, age, education and activity background and then the research hypothesizes are tested in form of conceptual model. In this research, there were 100% male respondents. 66% of sample individuals had Bachelor's degree and the other had higher education. The most abundance of selected sample age was related to the class upper than 30 years old. Activity background analysis is indicator of this matter that the absolute majority sample had averagely over 5 years of activity background in organization.

The test result of normality (Kolmogrof Smiernof) and the data random test (run test) indicated that the data in this research is gathered totally random and the research variables were normal. The results of these 2 tests explained in the tables 1 and 2 in the following:

Table 1) the test of being normality of data (Kolmogorov-Smirnov)  
One sample Kolmogorov-Smirnov

Normal parameters	emotional-cycle	intellectual-cycle	physical-cycle
Kolmogorov-Smirnov Z	1/051	.905	1/760
Asymp.Sig.(2-tailed)	.220	.386	.004

Test distribution is normal

Table2) the test of being accidental of data (Runs Test)

Runs test	emotional-cycle	intellectual-cycle	physical-cycle test
value	3.33	3.80	3.00
Total cases	50	50	50
Asymp sig	.684	.072	.500

Using Spss statistical software, we can analyze a variable in levels of a discrete variable. According to the gained average form this test, the investing managers who have higher age allocated more score to the effect of emotional (intuition and inspiration) cycle on quality of their decision makings. In addition, this matter indicates that whatever managers' age and experience increases, the amount of their intuitional decision making goes higher. Also the managers who has higher education, allocated more score to (questions) components related to variable of biorhythmic intellectual cycle (IQ, innate analysis power).

The entire present hypothesizes in this research is approved via variable comparison test with a constant number, because the gained Sig from the test (0/05) is gained smaller than the considered error in research. Therefore the researcher's hypothesis is approved with the present information.

(The result of this test is observable in table 3) The variables are analyzed via Freedman Ranking Test. The rank average for biorhythmic intellectual cycle variable is amount of 4/2 and for biorhythmic emotional cycle variable is amount of 3/40 and after that the biorhythmic physical cycle variable was ranked with amount of 2/25.( 4&5 tables)

Table 3) the test of comparing of variables with a positive figure  
One sample test

95%confidence interval of the difference		
	t	sig (2 tailed )
emotional. cycle	7.589	.000
Intellectual. cycle	14.697	.000
Physical. cycle	2.943	.005

Test value =3

Table 4) the average of Friedman degrees  
Friedman test

Independent variable	mean rank
Emotional. cycle	3.40
Intellectual. cycle	4.20
Physical. cycle	2.25

Table 5) the test of classifying of Friedman  
Test statistics

Chi-square	20.667
Asymp.sig	.000

A. Friedman test

Table 6) the results of hypothesis of research on the base of statistic analysis

Research Hypothesis	Periodical Test Results
There is significant and meaningful relation between Bio Rhythmic intellectual Cycle and quality of managers decisions.	Non-verification of research hypothesis.
There is significant and meaningful relation between Emotional Cycle intellectual cycle and quality of managers decisions.	Non-verification of research hypothesis.
There is significant and meaningful relation between Physical Bio Rhythmic Cycle and quality of managers decisions.	Non-verification of research hypothesis.

## 6- DISCUSSION AND CONCLUSION

On the base of this fact that the aim of this research is investigation of the effect of biometric cycles on the quality of decisions of managers of investment of investment funds in the Iran market, the researches of this part deal to offering the results of research.

In this article, there was an attempt to study the biorhythmic variable effective on investing managers' decision making quality and first determined that is this relation exists or not and secondly how much is severity of this relation; in other words effect of which biorhythmic cycles is more on managers' decision making quality. According to research findings, it is determined that biorhythmic factors are effective on managers' decision making quality and has the most effect respectively on intellectual, emotional and physical cycles on managers' decision quality. In the interim it was determined that whatever managers age and experience increases, the amount of their intuitional decision making goes higher and also managers who has higher education, implemented the most intellectual analysis in their decisions.

### 6-1- proposes to the negotiable papers security exchange of organization

Performing training periods for investors specially managers of the investment funds for identifying of the current sciences in special form, the science of environmental (bioritm)

-offering services to researchers in the field of trait researches, and multi-access supportive from them toward performing affective researches in the above fields , for increasing information for decision making process

### 6-2- Suggestions to companies and Investment Funds

- Holding educational periods for managers for more cognition of day sciences and specifically biorhythmic science (biological rhythm).

- Specific service presentation to researchers in filed of behavioral researches and comprehensive support from them in direction of implementation of more effective researches in abovementioned fields for making information richer about decision making process

### 6-3- Suggestions to Investment Managers of Investment Funds

- More cognition of psyche factors effective on decision making

- Consultation of young managers with more experienced managers for gaining information in field of intuitional decision making.

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