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Study the Influence of Different Levels of Life Cycle on Asymmetric Timeliness of Operational Cash Flow in the Accepted Corporations in Tehran Price Stock Exchange

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Abstract: The aim of this research is investigating the compound effect characteristics of corporation life cycle levels on asymmetric timeliness of operational cash flow. At first the review of literature of corporation life cycle should be presented, then the variables such as measure, age, asset expenditure, sale growth and divided profit ratio of each corporation share as qualified characteristics of corporation life cycle have been clarified. These variables have been measured based on current procedure measurement in corporation life cycle literature. Then the mentioned variables have been measured, categorized, mixed based on their effects on asymmetric timeliness of operational cash flow and investigated the research aim. The dependent variable of the research is operational cash flow and its independent variables are life cycle different levels such as growth level, puberty level and wane level. The statistic sample of the research include 96 corporations which have been chosen by systematic deletion method. This research is an applicable one based on its aim. The research design is an eventual on based on its historical information and the research deduction method is analytical and correlative. In research Penelope data and linear regression have been used to investigate research hypotheses. The received conclusions of investigating 460 corporation year from 1389-1393 in accepted corporations in Tehran price stock exchange indicate that there is just only a positive meaningful relationship between growth level of life cycle levels and asymmetric timeliness of operational cash flow. However, no relationships have been found between puberty level and wane level of life cycle levels with asymmetric timeliness of operation cash flow. The total conclusions express the influences of life cycle on asymmetric timeliness operational cash flow in accepted corporations in price stock exchange in Tehran.

Key words: Life cycle, asymmetric timeliness of operational cash flow, growth level, puberty level, wane level

INTRODUCTION

Conservatism has been interpreted as an accountant's inclination in commitment upon higher degree of attendance capability for recognition of good news in relation to bad news in financial statements. In this interpretation of conservatism accounting profit reflects bad news faster than good news. The use of stock output to measure news can test the amount of asymmetric timeliness in recognition bad news and good news as a standard on conservatism behavior and can declare the main research question in Iran asset market. However, assurable accounting awards considerable choice rights for the managers in different time durations (Moghadam and Kavoosi, 1972). Basu has defined conservatism in the following way.

Conservatism is a necessary different validation to recognize costs and incomes leads profit short views of assets. This definition is declared conditional Conservatism. In recent studies conservatism has been divided into two groups: the first one is pre-eventual which is independent from news and is called unconditional. Pre-eventual conservatism expresses the use of accounting standards which decrease profit from current economic news as an independent variable. For example, the expenditure of advertisement, research and development as costs can be pre-eventual conservatism, even their expected future current circuits have been positive. The other kind of conservatism is forth-eventual which is called conservatism dependent on news, Conditional conservatism and profit asymmetric timeliness (Collins and Tian 2015).

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Profit asymmetric timeliness based on profit portions in assurable accounting can be divided into two parts: asymmetric timeliness of assurable item and asymmetric timeliness of operational cash flow is correlated with characteristics of corporation operation profit basis process. These features clarify ordered determined sample of output and asymmetric timeliness of operational cash flow in corporation life cycle levels duration. The relationship between output and symmetric timeliness of operational cash flow is different in blissful news environments from dreadful news environments. So, asymmetric timeliness in operational cash flow in growing corporations is different from maturating corporations (Collins *et al*., 2014).

One corporation during its life passes different levels such as: appearance, growth, puberty and wane. Among these levels growth and puberty are considerable levels, during the growth level the corporation concentrates on investments, its development and expansion. The corporation uses its cash flow to buy productive stock assets and consumes investments in circuit invests. However, the corporation will encounter high investment output. The corporations which are in puberty level, use their available assets as cash flow and have balanced output. So, the relationship between asymmetric timeliness of operational cash flow is different during different life cycle levels (Collins *et al*., 2014).

Totally, this research tries to describe the relationship between asymmetric timeliness of operational cash flow with life cycle levels based on the researches done by Collins *et al*. (2014). Then the research wants to investigate the reasons and conclusions based on Conditional Conservatism, investigate the affected variables and describe the methodology to clarify the variables. Finally, the researcher will introduce some suggestions based on the research statistic sample, however; the research statistic sample include the accepted corporation in Tehran price stock exchange.

The main research question is: What is the effect of life cycle on asymmetric timeliness of operational cash flow in Tehran price stock exchange?

Literature review: Collins *et al*. (2014) believed that asymmetric timeliness of operational cash flow could be anticipated partially and it is different from corporation life cycle characteristics systematically, however; asymmetric timeliness of assurable items are different partially, too. Hasan *et al*. (2015) in their researches investigated the effects of life cycle on shareholder's right cost and concluded that shareholder's right cost would be higher in wane level and lower in puberty level.

Abdullah and Mohd (2014) showed that corporations in growth level are more conservatism than corporations in puberty level and corporations in wane level are less conservatism than corporations in puberty level. Moradi *et al*. (1973) in their research, unobvious assets correlation in life cycle levels, concluded that there are positive meaningful relationships between shareholder's right price, remained profit and unobvious assets booking price with high price market shares. Then, they found that life cycle different levels of corporations' puberty and wane levels had the strongest effects on unobvious assets correlation.

Noghabi (1973) based on corporation's life cycle theories showed that business units had different characteristics in life cycle different levels. The research hypotheses findings indicated that corporations followed different divided profit in each level of life cycle. Kordestani (1967) indicated that the increase of conservatism in financial statements and increase in corporation overture quality would decrease informational asymmetry, ambiguity and usual share asset costs. It would be expected that the resistance of this relationship would decrease corporation's overture high quality.

Theoretical bases: In this research, based on the researches done by Collins *et al*. (2014) will describe the relationship between asymmetric timeliness of operational cash flow, their relations with life cycle and Conditional Conservatism findings. Then, the affected agents on them and related indicators with variables should be investigated.

The main hypothesis: life cycle has an effect on asymmetric timeliness of operational cash flow. To answer the above hypothesis the following model tests should be considered: Growth level of life cycle level influences on asymmetric timeliness of operational cash flow:

$$\begin{aligned} CFO\_CF_{it} = {} & \beta 0 + \beta_1 DR_{it} + \beta_2 + RET_{it} + \beta_3 DR_{it} \times \\ & RET_{it} + \beta_4 LIFE\_CYCLER_{it} + \\ & \beta_5 LIFE\_CYCLER_{it} \times DR_{it} + \beta_6 LIFE\_ \\ & CYCLER_{it} \times RET_{it} + \beta_7 LIFE\_CYCLER_{it} \times \\ & DR_{it} \times RET_{it} + \varepsilon_{it} \end{aligned}$$

Puberty level of life cycle level influences on asymmetric timeliness of operational cash flow:

$$\begin{aligned} CFC\_CF_{it} = {} & \beta_0 + \beta_1 DR_{it} + \beta_2 RET_{it} + \beta_3 DR_{it} \times RET_{it} + \\ & \beta_4 LIFE\_CYCLEB_{it} + \beta_5 LIFE\_CYCLEB_{it} \times \\ & DR_{it} + \beta_6 LIFE\_CYCLEB_{it} + \beta_7 LIFE\_ \\ & CYCLEB_{it} \times DR_{it} \times RET_{it} + \varepsilon_{it} \end{aligned}$$

Wane level of life cycle level influences on symmetric timeliness of operational cash flow:

$$CFO\_CF_{it} = \beta_0 + \beta_1 DR_{it} + \beta_2 RET_{it} + \beta_3 DR_{it} \times RETit + \beta_4 LIFE\_CYCLEN_{it} + \beta_5 LIFE\_CYCLEN_{it} \times DR_{it} + \beta_6 LIFE\_CYCLEN_{it} \times RET_{it} + \beta_7 LIFE\_CYCLEN_{it} \times DR_{it} \times RET_{it} + \varepsilon_{it}$$

Independent variable: All living beings such as vegetables, animals and human beings follow life cycle. They are born, grow up and will get old and die. This definition can be used to describe economic and management and divide corporation life into different levels (Anthony and Ramesh, 1992). In this research, the present artificial variable for growth, puberty and wane will be equal 1 and in spite of it will be zero. The meaning of life cycle can be a metaphor for corporations, based on this definition, all the corporations run, grow up, maturate and close. To divide corporations into different levels of life cycle following coordinated variables should be used:

$$SG_{it} = [1-(SALE_{it}/SALE_{it}-1)] \times 100$$

$$DPR_{it} = (DPS_{it}/EPS_{it}) \times 100$$

$$CE_{it} = [\text{Increase (decrease) of fixed asset in each duration/corporate market price}] \times 100$$

Where:

AGE = Different between t year and corporation foundation year
SALE = Sale income
DPS = Divided Profit Stock
EPS = Each Profit Stock

Anthony and Ramesh (1992) used four variable: sale growth, capital expenditure, divided profit ratio and age to divide corporations into life cycle levels. In this research corporations will be divided into growth, puberty and wane levels with the use of four variables and based on Park Chen following ways.

At first the amount of variables; sale growth, capital, expenditure, divided profit ratio and age of each corporation should be calculated for each year. The corporation year based on the foresaid variables and the statistical categories in each industry can be divided into five categories. The slightly category should receive a score from 1-5 as shown in Table 1. Then, for each year of corporation composite scores would be get that are categorized based on the following situations in the growth, puberty and wane levels:

Table 1: Determination of life cycle different levels

Categories	Sale growth	Capital expenditure	Age	Divided profit ratio
First	1	1	5	5
Second	2	2	4	4
Third	3	3	3	3
Forth	4	4	2	2
Fifth	5	5	1	1

- If scores are from 16-20, corporation will be in growth level
- If scores are from 9-15, corporation will be in puberty level
- If scores are from 4-8, corporation will be in wane level

Dependent variable

Asymmetric timeliness of operational cash flow: In the research asymmetric timeliness of operational cash flow would be practicable in the following way:

$$Y_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 R_{it} + \beta_3 D_{it} \times R_{it} + \varepsilon_{it}$$

Where:

Y_{it} = Pperational cash flow
R = Stock output
D = A variable which will be equal 1 if R is smaller than zero in spite of that is zero
β_3 = Asymmetric timeliness of operational cash flow (Collins *et al*., 2014)

MATERIALS AND METHODS

Research population include all the accepted corporations in price stock exchange in organization. Time durations of research would be annually and include one quinquennial duration from 1389-1393. Research sampling is systematic deletion sampling. So, statistic sample of research consists of the accepted corporations in price stock exchange:

- The corporations which existed in stock exchange in financial years from1389-1393
- The corporations which didn't enter stock exchange in financial years from 1389-1393
- The corporations which didn't exit from stock exchange in financial years from 1389-1393
- The corporations which weren't among corporations and bankrolls investments
- The corporations which their financial years had finished in Esfand

The corporations which their symbol transaction hadn't dawn >4 months. So, the research sample include 96 corporations which have the above mentioned characteristics. Research structure data is Penally, so the number of observation is 480.

Research methodology is squaring, so corporation's real data have been gathered based on Novin Rahavard software and stock exchange site. Excel and Eviews 7 have been used to analyze, interpret and calculate data. In this research the relationships between variables have been investigated, so it can be called demonstrative research. Then regressive model has been used to check the influences of the variables on each other as the research is a correlative one. The definite sample based on influencing factors on conservatism in a distinct duration has been designed. Reasons and symbols in the following definite sample have been specified. In this model the dependent variable is asymmetric timeliness of operational cash flow and the independent variable is life cycle. Usual Regressive model has been used to evaluate research hypotheses. Hasman test and other tests for classic model data and post test have been used, too.

Main hypothesis: Corporation life cycle has a positive meaningful relationship on symmetric timeliness of operational cash flow:

- Growth level can influence on asymmetric timeliness of operational cash flow
- Puberty level can influence on asymmetric timeliness of operational cash flow
- Wane level can influence on asymmetric timeliness of operational cash flow

RESULTS AND DISCUSSION

Research findings: Data structure has been combined, so constant, coincident affect test and Limer test have been used to calculate data (Table 2). In Limer test, zero hypothesis means that there aren't any individual or mass affects. After the test conclusions have been shown the amount of test statistic clarifies the models. If amount of test statistics is <0/05, the model will be accepted. Based on Limer test, statistic meaningful of F level in all models is >0/05, so one hypothesis will be rejected ex parte zero hypothesis. Finally, in all models Synthetic Regression should be used.

First sub hypothesis conclusions: First Model: Growth level of life cycle levels has a positive meaningful effect on asymmetric timeliness of operational cash flow.

Based on Table 3 growth level coefficient variable of life cycle levels is 0/033 and its meaningful number (Prob.) is 0/002. Based on statistic amount of t and p-value of this variable, coefficient meaning of 0/05 error level of growth level with suitable variables and 0/029 of adjusted specification coefficient show the influence of this model

Table 2: descriptive statistics of research variables:

Variables	Cash flow	Growth level	Puberty level	Wane level
Average	568449/3	0/10	0/77	0/122
Mode	74074	0	1	0
The most	2E+07	1	1	1
The least	-2E+06	0	0	0
SD	2E+06	0/300	0/416	0/328
Chaology	Jun-81	02/66	-0.03	02/30
Elongation	54/69	08/11	02/77	06/30

on asymmetric timeliness of operational cash flow. And this influence is confirmed based on above table coefficient and credibility.

$$CFO\_CF_{it} = -0/017828 - 0/136296DR_{it} + 0/033309LIFE\_CYCLE_{it} - 0/078134LIFE\_CYCLE_{it} \times DR_{it} - 0/051587LIFE\_ CYCLER_{it} \times DR_{it} \times RET_{it}$$

Second sub-hypothesis conclusions: Second model: puberty level of life cycle levels has a positive meaningful effect on asymmetric timeliness of operational cash flow.

Based on Table 4 puberty level of life cycle level is 0/009 and its meaningful number (Prob) is 0/289. Based on meaningful amount of t and p-value of this variable, coefficient meaning of 0/05 of error level of puberty level with suitable variables and 0/24 of adjusted specification coefficient reject the influence of puberty level of life cycle levels on asymmetric timeliness of operational cash flow. So, the influence is not confirmed based on above table coefficient and credibility.

$$CFC\_CF_{it} = -0/072917+0/112220LIFE\_ CYCLEBit \times RET_{it} - 0/072917LIFE\_ CYCLEB_{it} \times DR_{it} \times RET_{it}$$

Third sub hypothesis conclusions: Third model: Wane level of life cycle level has a positive meaningful effect on asymmetric timeliness of operational cash flow.

Based on Table 5 wane level of life cycle level is -0/031 and its meaningful number (Prob.) is 0/528. Based on meaningful amount of t and p-value of this variable, coefficient meaning 0f 0/05 of error level of wane level with suitable variable and 0/20 of adjusted specification coefficient reject the influence of wane level of life cycle level on asymmetric timeliness of operational cash flow. So, the influence is not confirmed based on above table coefficient and credibility:

$$CFC\_CF_{it} = -0/026487 - 0/2214582LIFE\_ CYCLEB_{it} \times DR_{it} - 0/044839LIFE\_ CYCLEB_{it} \times RET_{it}$$

Table 3: Best approximation of first model sample

Signs	Variables	Coefficients	SD	The amount t-statistic	Expectancy
C	Fixed coefficient	0	0/006	-0.0225	0/003
DR	Damian variable	0	0/059	-0.0741	0/023
RET	Output	0/066	0/004	01/62	0/103
DERET	The difference between output and damian variable	0/034	0/039	0/878	0/380
Lifecycle R	Growth level	0/033	0/003	03/00	0/002
Lifecycle DR	The difference between growth level and damian variable	0	0/027	-0.0241	0/004
Lifecycle RRET	The difference between growth level and output	0/336	0/028	1/300	0/194
Lifecycle DRRET	The relationship among growth level, output and damian variable	0	0/014	-0.0556	0/000

Specification coefficient = 0/31; Adjusted specification coefficient = 0/29; 0/29; F-statistic =08/51; The meaningful level of F-statistic = 0/000; Watson camera statistics = 01/73

Table 4: Best approximation of second model sample

Signs	Variables	Coefficients	SD	The amount t-statistic	Expectancy
C	Fixed coefficient	0	0/007	-0.105	0/000
DR	Damian variable	0	0/005	0	0/575
RET	Output	0/011	0/003	0/299	0/764
DRRET	The difference between output and damian variable	0	0/003	0	0/944
Lifecycle B	Puberty level	0/009	0/008	1/059	0/289
Lifecycle DR	The difference between puberty level an damian variable	0	0/005	0	0/845
Lifecycle BRET	The difference between puberty level and output	0/0112	0/011	16/10	0/000
Lifecycle BRRET	The difference of pubertylevel, output and damian variable	0	0/007	-0.105	0/000

Specification coefficient = 0/25; Adjusted specification coefficient = 0/24; 0/24; F-statistic = 07/56; The meaningful level of F-statistic = 0/000; Watson camera statistics = 01/96

Table5: Best approximation of third model sample

Signs	Variables	Coefficients	SD	The amount t-statistic	Expectancy
C	Fixed coefficient	0	0/010	-0.037	0/011
DR	Damian variable	0/053	0/005	0	0/347
RET	Output	0/027	0/037	0/720	0/471
DERET	The difference between output and Damian variable	0/009	0/003	0/244	0/806
Lifecycle E	Wane level	0	0/005	0	0/528
Lifecycle DR	Difference between wane level and Damian output	0	0/080	-0.027	0/006
Lifecycle RET	Difference between wane level and output	0	0/012	-0.055	0/000
Lifecycle DERET	Differences of wane level, output and Damian variable	-/035	0/029	-0.005	0/227

Specification coefficient = 0/21; Adjusted specification coefficient = 0/20; 0/20; F-statistic =18/68; The meaningful level of F-statistic = 0/000; Watson camera statistics = 01/730

As said, just the first model of three sub hypotheses is accepted, so, the main research hypothesis should be accepted, too.

CONCLUSION

This research has been done to investigate the effect of life cycle on asymmetric timeliness of operational cash flow, based on the Regression conclusion, following findings have been resulted:

- Growth level of life cycle level has a positive meaningful effect on asymmetric timeliness of operational cash flow
- Puberty level of life cycle level has no positive meaningful effect on asymmetric timeliness of operational cash flow
- Wane level of life cycle level has no positive meaningful effect on asymmetric timeliness of operational cash flow

Research bases is extremely correlated with theoretical bases. In the first level of life cycle operational cash flows are negative because corporations spend their cash flows to increase their incomes, development and research activities and buy their goods. So, negative operational cash flows for young and growing corporations aren't unnatural and having negative cash flows for growing corporations in good news situation (for example, positive output) isn't unusual. Moreover, change in corporation cost is the result of change expectance from growth situation in which future cash flows will be recognized, in spite of that, in bad situation (for example negative output) operational cash flow is more important. In this situation, operational cash flows are standards to clarify corporation durability chance in a situation that external financial security possibility is limited, so this subject is declared the positive relationship between operational cash flows and output in bad news situation (Collins and Tian 2015).

Based on research conclusions different levels of life cycle levels will increase asymmetric timeliness of operational cash flow. So, this research will be suggested to financial analyst, students and educational institutes to use the research findings in accommodating studies and

other financial researches. Investors, investment managers and financial suppliers can use research findings to anticipate better operational cash flows of their intended corporations. Moreover, research conclusions assert that life cycle is an effective variable on asymmetric timeliness of operational cash flow and it is very effective to keep shareholder's public rights.

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