Measuring Organizational Effectiveness: An Industrial Study on Indonesia's Listed Manufacturing Firms

by Samuel Pd Anantadjaya

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Samuel PD Anantadjaya
School of Accounting, Faculty of Business Administration & Humanities
Swiss German University, Serpong, Tangerang, Indonesia
Email: ethan.eryn@gmail.com

Innge Handojo
School of Accounting, Faculty of Business Administration & Humanities
Swiss German University, Serpong, Tangerang, Indonesia
Email: ihandojo@yahoo.com

B. Agus Finardi
School of Business, Faculty of Business Administration & Humanities
Swiss German University, Serpong, Tangerang, Indonesia
Email: b.agus.finardi@gmail.com

ABSTRACT

The turbulent business environments, coupled with the unstable world economy following the global financial crises, have certainly put pressures on firm's survivability. The financial conditions of firms may have been the closest approximation to learn the influential effect of the economy. The firm's ability to meet its operational obligations may portray as the key for survivability. The period of uncertainties, coupled with high fluctuations, had certainly pushed firms to monitor their on-going effectiveness.

In order to evaluate the organizational effectiveness of the Indonesian firms, this paper follows the concepts on various ratio analyses in attempting to measure the firm's performance over a period of 2005-2010. In particular, this paper only focuses on the publicly listed firms at the Bursa Efek Indonesia ("BEI") to note the level of performance of the Indonesian firms, particularly the level of effectiveness. This study covers an extensive research on manufacturing firms, which are comprised of automotive, textile, agriculture, mining, pharmaceutical, ceramics, aluminum, cigarettes, cement, cable, basic industry, chemicals, household products, food and beverages, metal, logging, glass manufacturing, animal feed, pulp and paper, including plastic and packaging.

Previous studies have been undertaken to cover the qualitative and quantitative studies from view notable perspectives. This paper is solely dependent on secondary data concerning the financial statements of various Indonesia's publicly listed manufacturing firms. Other variables are obtained from the general economic condition of the country to note the likelihood of impact toward organizational performance. From approximately 600 data, during a span of 6 years, it is expected that this paper is able to provide the organizational effectiveness, which may provide probable signal for the firm's level of viability into years to come. Statistical analyses are also performed to observe the general practicality of the data.

Keywords: organizational effectiveness, manufacturing firms, publicly listed, Indonesia

I. Introduction

Concerning uncertainties, scholars usually took an approach on either an internal or external insight (Clampitt and Williams, 2000). As people may have easily predicted, internal insights were more concerned with the overall impact of uncertainty on employees, rather than organizations. External insights, on the other hand, portrayed other major sources of uncertainty from the external organizational environment. Uncertainties can simply appear from the latest development that occurred regionally, like socio-political disruptions in the Middle East and North Africa, the world's price fluctuation in oil and food-related products, money market volatilities, capital market variability, terrorists' threats, labor strikes, changes in public policy, information and communication technology revolution, natural disaster, and many other incidents. According to Brashers (2001), uncertainties existed when details were relatively ambiguous, complex, unpredictable, and also when information were scarce/inconsistent. Since organizations operated in dynamic environments, uncertainties created multiple challenges for firms (Clampitt and Williams, 2000).

The periods of uncertainties, coupled with high fluctuations, had certainly pushed firms to monitor their on-going effectiveness. Research in the field of organizational effectiveness had proven itself to gain a significant role in modern industrial society due to large invested resources to fulfill individuals and needs of the society (Anantadjaya, 2008; 2009; Hage, 1980; Henri, 2004). In particular, according to Henri (2004), the studies on organizational effectiveness have become one of the most extensively researched issues since the early development of organizational theory and theory of the firm (Anantadjaya, 2008; 2009; Hage, 1980; Henri, 2004). Equipped with this knowledge, this research is keen to provide preliminary findings on organizational effectiveness in Indonesia's manufacturing firms. This is particularly interesting since the Indonesian manufacturing firms have attracted foreign direct investment at an average of 38% since 2004 (www.gbgindonesia.com, 2012). As per the Jakarta Stock Exchange Industrial Classifications ("JASICA"), the Indonesia's manufacturing firms consists of; automotive, textile, agriculture, mining, pharmaceutical, ceramics, aluminum, cigarettes, cement, cable, basic industry, chemicals, household products, food and beverages, metal, logging, glass manufacturing, animal feed, pulp and paper, including plastic and packaging.

II. Theoretical Reference

Hage (1980) stated that organizational effectiveness was a mere hypothetical construct that attempts to assess the overall functions of the organization. Explicitly, Champoux (2003), and Hage (1980) denoted the indicators of organizational effectiveness, which were; objective indicators (such as; profit, and production rate), behavioral/subjective indicators (such as; employee satisfaction, and quality of work-life), and social indicators (such as; contribution to the surrounding community, and development of infrastructure). These factors were crucial considerations for managers to get the work done, and leveraged the ability to achieve the ultimate goal of the firm. Hage (1980), Jay and Overholt (2004), and Reddy and Gayathri (2000) provided the basic definitions on what organizational effectiveness was all about. They indicated that organizational effectiveness measured the level of organizational success in achieving its missions/goals by simply relying on its core strategies and resources (Anantadjaya, 2008; 2009; Daft, 2001). It was apparent that the scope of organizational effectiveness represented the results of organization's contextual, structural, strategic, tactical and process variables (Hage, 1980; Jay and Overholt, 2004; Reddy and Gayathri, 2000).

Daft (2001) prescribed ways in trying to achieve the ultimate organizational effectiveness,

which were; goal approach (Jeffrey, et al, 2006), resource-based approach (Ancarani, 2001; Helfat and Peteraf, 2002), internal approach (Filatotchev and Nakajima, 2010), and contingency approach (Beersma, et al, 2002). The goal approach (Daft, 2001; Jeffrey, et al, 2006) concerned with organizational results. Its most favorable indicator was unquestionably profitability. This goal approach appeared to be the pioneer in the accounting and financial studies. The resource-based approach (Anantadjaya, 2008; Ancarani, 2001; Daft, 2001; Helfat and Peteraf, 2002) attempted to assess organizational effectiveness via direct observations of processes, and evaluations on resources to achieve high performance. According to the resource-based approach, several common indicators of organizational effectiveness included; financial resources (Anantadjaya, 2007; Henri, 2004), raw materials , human resources (Anantadjaya, 2009), knowledge, and technology, or the ability of the organization to respond to changes in the environment. As time passes, the accounting and financial studies have enlarged their coverage in research and understanding. The resource-based approach appeared to have given ways to open more doors into the behavioral studies. The internal process approach (Daft, 2001; Filatotchev and Nakajima, 2010) focused on internal activities and assessed the organizational effectiveness via organizational health and efficiency. Several common indicators of organizational effectiveness according to the internal process approach included; strong corporate culture, positive work climate, team spirit, group loyalty, teamwork, confidence, trust, communication among employees, rewards, and performance management. The contingency approach (Daft, 2001; Beersma, et al, 2002) attempted to balance concerns of various divisions, and stakeholders. As predicted, this balanced approach combined several indicators of effectiveness into a single framework. Table 1 shows the effectiveness criterion from the stakeholder perspective.

Table 1: Stakeholder Effectiveness Criteria

Stakeholder	Effectiveness Criteria
Owners	financial returns
Employees	worker satisfaction, pay, supervision
Customers	quality of goods and services
Creditors	Creditworthiness
Community	contribution to community affairs
Suppliers	satisfactory transactions
Government	compliance to laws and regulations

Source: Daft, 2001

Gibson, et al (2009), and Isoraite (2005) prescribed another approach on organizational effectiveness. At one level, individual effectiveness focused on employees' task performance. Upon regular assessments, performance evaluation mirrored the way to determine salary/wage adjustments, promotions, rotations, bonuses, and other rewards. On another level, individual effectiveness was examined along with others within a particular group/division. Though group effectiveness can also be regarded as the accumulation of individual performance, the focal point remained on individual employees. This was to say that once individual was able to perform tasks effectively, higher group effectiveness was achieved. At the highest level was definitely organizational effectiveness. Similar to the group effectiveness, organizational effectiveness combined individual and group effectiveness (Hoell, 1998; Yolles, 2008). Because of the synergistic efforts, which bring about group synergy among employees, firms can obtain higher levels of effectiveness, relative to any individual efforts. This meant that group effectiveness depended on individual effectiveness, and individual and group effectiveness pushed up organizational effectiveness (Hoell, 1998; Yolles, 2008). The "mathematical equation" to reach the highest possible level of organizational effectiveness can simply be expressed as follows (Gibson, et al, 2009; Hoell, 1998; Isoraite, 2005; Yolles, 2008); organizational effectiveness = individual effectiveness + group effectiveness, whereby (1) "individual effectiveness" included; individual ability, skill, knowledge, attitude, and

motivation, and (2) "group effectiveness" included; cohesiveness, leadership, structure, status, roles, and norm.

The following table provided an overview of several models on organizational effectiveness.

Table 2: Organizational Effectiveness Models

No	Theoretical Background	Effectiveness Criterion	Focus of Level of Effectiveness
1	Business/Economic Rationality	Productivity	Organization
2	Organic System Theory	Adaptability	Organization
3	Human Relations Approach	Involvement	Individuals
4	Bureaucratic Theory	Continuity	Organization and Individuals
5	Political Theory	Responsiveness to external stakeholders	Groups and Individuals
6	Group Psychology	Efficiency and Adaptability	Groups and Individuals
7	Group Identity	Flexibility and Adaptability	Groups and Individuals
8	Theory of the Firm	Productivity	Organization

Source: Anantadjaya, 2008; 2009; Hoell, 1998; Isoraite, 2005; Yolles, 2008, modified

Concepts of effectiveness, performance and results-based management were commonly used in relation to internal organizational systems (Anantadjaya, 2008; 2009; Hoell, 1998; Isoraite, 2005; Yolles, 2008). They were closely related to one another, and mostly were used interchangeably. Such concepts shared a common "results focus". Performance was usually assessed in terms of results relative to organizational objectives and included measures of effectiveness. Effectiveness was one aspect of performance, others being economy (cheapest inputs) and efficiency (best output for a given input). Organizational effectiveness was undoubtedly broader. It captured organizational performance plus the outcomes of internal performance, which were normally associated with more efficient or effective operations and other external measures that relate to considerations that are broader than those simply associated with economic valuation (either by shareholders, managers or customers), such as reputation (Richard, et al, 2009).

According to Richard, et al (2008), organizational performance encompasses three specific areas of firm outcomes; (1) financial performance (such as; profits, return on assets, return on investment); (2) market performance (such as; sales, market share); and (3) shareholder return (such as; total shareholder return, economic value added). Moreover, organizational performance can also be evaluated using four characteristics (Mitchell, 2002); relevance, effectiveness, efficiency, and financial viability. These four measures of organizational performance were said to be affected by the organization's motivation and capacity, including interactions with the externalities. Hence, it became apparent that a framework for measuring organizational performance was indeed required to assess (1) how well the organization was functioning; (2) whether managerial decisions were good; and (3) any organizational change (Waheed, et al, 2010). Organizational performance referred to how well an organization achieved its market-oriented goals as well as its financial goal. Prior studies (Lakhal, 2009) have measured organizational performance using both financial and market criteria, including return on investment ("ROI"), market share ("MS"), profit margin ("PM"), the growth of ROI ("GROI"), the growth of sales ("SG"), and the growth of market share ("GMS").

Since ratio analysis appears powerful to show the generic measurements on organizational performance, Block and Hirt (2008) indicated several ratio analyses to be incorporated into the organizational evaluations. The basic purpose of profitability ratio, for example, was to measure the firm's ability to generate financial returns during a particular accounting period, to replace assets, meeting the increasing demands, as well as provided compensation to investors. The combinations of profitability ratios were indicators of good financial health and how effectively the company in managing its assets. This was the reason why profitability ratios were used to measure the management's overall effectiveness (Anantadjaya, 2009; Block and Hirt, 2008; Bullock, 2006; Flex Monitoring Team, 2005; Upneja, et al, 2000). Some of those ratios were as follows, but not limited to; inventory turnover ("ITO"), receivables turnover ("RETO"), fixed asset turnover ("FATO"), total asset turnover ("TATO"), PM, return on asset ("ROA"), and return on equity ("ROE") (Anantadjaya, 2009; Block and Hirt, 2008).

A study in the banking industry, which relied on Tobin's Q[1] as the proxy, revealed a relationship between board structure and firm performance (Adams and Mehran, 2005). To measure the performance of target firms after they were acquired, accounting measures on operating income before depreciation, amortization and taxes ("OIBD") were emphasized. To control for the relative size of the target firm, OIBD was scaled by the firm's total assets, to put emphasis on ROA. The patterns on increasing profitability and daunting sales slump were consistent with improvements in firm-efficiency following acquisition (Chari, et al, 2009). This result was also consistent with what Block and Hirt (2008) had prescribed. To evaluate organizational efficiency, however, asset turnover ratios were imposed (Block and Hirt, 2008). On the contrary, to evaluate organizational effectiveness, profitability ratios were recommended (Anantadjaya, 2009; Block and Hirt, 2008; Flex Monitoring Team, 2005; Upneja, et al, 2000). Objective measures like accounting measures, financial market measures, mixed market/accounting measures, and survival were used to evaluate organizational performance (Richard, et al, 2009).

Following the prescriptions from Block and Hirt (2008), profitability ratios were used to note the level of firms' effectiveness (Anantadjaya, 2009). The study revealed that "growth", "ROE", "ROI", "ROA", "ROS", and "ITO" seemed to support the level of effectiveness of human resources in performing various tasks inside organizations. As human resources became more effective, it was expected that there would be a faster turnover in the organizational inventory. As a result, an organizational growth would rise. This would be translated into higher ROS, ROE, ROI, and ROA (Anantadjaya, 2009).

Hence, it can be hypothesized that;
H_1 : Organizational effectiveness is positively influencing the organizational performance

Aside from the internal aspect of the firm, it was also worth noted the external impact toward the organizational effectiveness and performance. The macroeconomics provided the big picture of the country's economy (Frederica, 2012; Schiller, 2006), such as; full employment, inflation, and growth. The general state of the country's economy served as the buffer, which often times provided signal to firms during good and bad times. Such conditions, the good times and bad times of the country's economy, would certainly be reflected at the level of effectiveness and performance (Frederica, 2012). A macroeconomic model, which was

[1] In this study, Tobin's Q represented the ratio of the firm's market value to its book value. The firm's market value was the difference between the book value of assets minus the book value of equity plus the market value of equity (Adams and Mehran, 2005).

studied in 2006 by Pesaran, et al (Frederica, 2012) concluded that GDP, inflation, and interest rate were acceptable indicators to represent the country's macroeconomics.

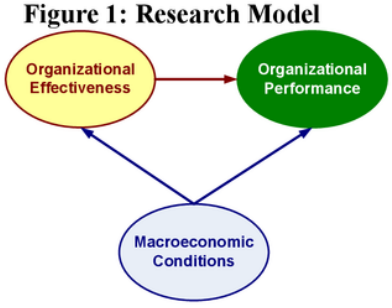
Hence, it can be hypothesized that;
H_2 : Macroeconomic conditions are positively influencing the organizational effectiveness
H_3 : Macroeconomic conditions are positively influencing the organizational performance

III. Research Method

III.1. Research Model

As explained, this study attempts to note the relationships among variables of organizational effectiveness and organizational performance. As an additional variable is the condition of the Indonesian macroeconomic. The adjacent illustration shows the research model.

Figure 1: Research Model



In this study, the variable latent exogeneous[2] is "macroeconomic conditions", which can be expressed in the following matrix notation, $X = \Lambda_x \xi + \delta$. This matrix attempts to evaluate the direct influence of macroeconomic conditions to organizational effectiveness, and direct influence toward organizational performance. Aside from "macroeconomic conditions" as the variable latent exogeneous, this study also incorporates "organizational effectiveness" as the variable latent endogenous[3]. The matrix notation of this latent endogenous can be expressed as; $Y_a = \lambda_{ab}^{(Y)} \eta + \varepsilon_a$. This matrix attempts to evaluate the direct influence of organizational effectiveness to organizational performance. The more effective the organization is run, the better the performance. In this study, as the variable endogenous is "organizational performance", which can be expressed in the following matrix notation; $Y = \Lambda_y \eta + \varepsilon$.

III.2. Research Design

This study was based on secondary data in analyzing the firms' effectiveness over a period of 2005-2010. This study focused only on the manufacturing firms in accordance with JASICA in BEI. Out of 446 publicly listed firms at the end of 31 December 2010, 127 firms were categorized as manufacturing companies. Since this study paid a particular focus only during 2005-2010, there were mere 99 publicly listed manufacturing firms recorded in BEI. Once the financial statements were downloaded, selected financial information were extracted to represent the various financial ratios, including some organizational performance indicators. As illustrated in figure 1, variables used were;

- General economic conditions were represented by (1) the Indonesian **gross domestic product** ("GDP"), (2) **interest rates**, and (3) **inflation rates**, to evaluate the impact of externalities into organizational effectiveness and performance.

- Organizational effectiveness was represented by (1) **profitability ratios** to measure the companies' ability in generating returns (Block and Hirt, 2008; Frederica, 2012; Hooks, 2003; Richard, et al, 2009; Wild, et al, 2005), which included; ROA, ROE, and ROS, (2) **asset utilization ratios** to measure the speed of turning over firm's assets (Anantadjaya, 2009; Block and Hirt, 2008), which included; RETO, ITO, and TATO, (3) **liquidity ratios** to measure the firm's ability in meeting its current obligations (Block and Hirt,

[2] According to Schumacker dan Lomax (2004), variable latent exogeneous refers to variables, which cannot be directly measured.
[3] According to Schumacker dan Lomax (2004), variable latent endogeneous refers to variables, which cannot be directly measured and required manifestation of other sub-variables/dimensions, as well as connected to other variables.

2008), which included; current ratio ("CR"), and quick ratio ("QR"), (4) **debt utilization ratios** to measure the prudence of the debt management policies of the firm (Block and Hirt, 2008), which included; debt-to-asset ratio ("DAR"), and debt-to-equity ratio ("DER"), and (5) **tangible assets** ("TAN") to show the comparison between property, plant and equipment, and total assets (Frederica, 2012; Hooks, 2003; Wild, et al, 2005), (6) **earnings-to-total-assets ratio** ("ETAR") to show the comparison between earnings before interests and taxes ("EBIT") and total asset ("TA") (Frederica, 2012; Hooks, 2003; Wild, et al, 2005).

- Organizational performance was represented by (1) **sales growth** (Hooks, 2003), (2) **market-to-book value**[4] ("MTB") to indicate the comparisons between market value and book value (Frederica, 2012; Rizki, 2010; Wild, et al, 2005), (3) **enterprise value-to-earnings ratio**[5] ("EVER") that compares **enterprise value**[6] ("EV") and **earnings before interests, taxes, depreciations, and amortization** ("EBITDA") to indicate the ability of firms in generating value (Damodaran, 2006), (4) **price-earning ratio**[7] ("PER") to indicate the ability of firms in generating earnings in stock price (Damodaran, 2006), and (5) **price-to-book value**[8] ("PBV") to indicate the comparison between market value and book value (Damodaran, 2006).

IV. Data Analysis

IV.1. Industry Overview

According to Frederica (2012), and www.gbgindonesia.com (2010), the Indonesian manufacturing industry was and still is a major source for the country's economy. At the rate of about 61% (including agricultural sector), the manufacturing industry remains the biggest contributor to the country's economy (www.cia.gov, 2012).

Table 3: Growth Rate

Industry Sector	Growth
Food, Beverage and Tobacco	2.73%
Leather goods and Footwear	1.74%
Timber and Forest Products	-3.5%
Paper and Printing Products	1.64%
Fertilizer, Chemical and Rubber Products	4.67%
Cement and Non-Metal Minerals	2.16%
Automotive and Heavy Machinery	10.53%

Source: www.gbgindonesia.com, 2012

Jumping from 4.6% real growth rate in 2009, to 6.1% in 2010, this manufacturing industry has shown signs of recovery following the slow-down due to the transformation in global trading environment, including the free-trade pacts in Asia, as well as in North America and China. This was simply due to the main export markets[9] had been experiencing economic downturn, following the US market crash. The main contributors within this manufacturing industry were petroleum, natural gas, automotives, electronics, textiles, apparels, mining, footwear, food and beverage, palm oil, metal products, chemicals, cements, wood, and rubber (www.gbgindonesia.com, 2012; www.cia.gov, 2012). These main contributors have shown

[4] In this case, the book value referred to the firm's historical costs. Market value was based on the share value in the market (Wild, et al, 2005). Hence, the formula for MTB in this study followed the prescribed suggestion by Wild, et al (2005), book value of liabilities plus market capitalization minus net cash divided by total assets minus intangible assets, or in a mathematical format MTB can be expressed by $BV_L + MC - \frac{NC}{TA} - IA$.

[5] According to Damodaran (2006), EVER = EV/EBITDA.

[6] According to www.beginnersinvest.about.com (2012), and www.investopedia.com (2012), EV is calculated as market value of common stock plus preferred stock plus outstanding debt plus minority interests minus market value of associate companies minus cash and cash equivalent, or expressed in a mathematical equation as $EV = (MV_{CS} + PS + TD + MI) - MV_{AS} - Ca$

[7] According to Damodaran (2006), $PER = \frac{MV_{CS}}{EPS} = \frac{MV_{CS}}{\frac{EBIT}{shares}}$

[8] According to Damodaran (2006), $PBV = \frac{MV_{CS}}{BV_{CS}}$

[9] The main export markets for Indonesian manufacturing products are; China, Japan, USA, India, Singapore, Malaysia, and the members of European Union (www.gbgindonesia.com, 2012; www.cia.gov, 2012).

the highly diverse products at Indonesian disposal. To respond to the global challenges, the Indonesian manufacturing industry is constantly upgrading its human resources to cope with the enhanced technological-based manufacturing processes[10]. This is deemed crucial as a way to move-up the ladder of the global value chain. This would enable Indonesia in benefiting more from value-added products and production processes, at least boosting potential revenue by approximately 30% (www.gbgindonesia.com, 2012). In turn, the country's government is constantly promoting the downstream businesses to foreign investment.

IV.2. Statistical Analysis

The pools of data were analyzed using statistical software to bring up the significance of variables used in this study. Some descriptive statistics can be shown as follows;

Table 4: Selected Financial Averages

EVER (EV/EBITDA - times)	SG (%)	TAN (%)	MTB (times)	EBIT (US$ million)	TA (US$ million)	PER (times)	PBV (times)
16.72	4.6	40	1.29	53.9	439.4	38.64	1.78

Source: financial statements, 2005-2010, modified

Table 3 shows only selected averages of the available data in this study during the span of 6 years. The level of EVER appears promising. It seems that the value of the firm is about 17 times bigger than EBITDA. The major contributor could have been the market capitalization. At the level of EBIT of US$53.9 million, and a total TA of US$439.4 million, the ratio of EBIT/TA equals to 12.3%. This means that for every dollar invested in TA, firms can generate 12.3 cents in EBIT. Considering the current interest rates on Indonesia's savings and time deposits of about 6% per annum, the average rate of 12.3% over the span of 6 years is actually superb. Aside from the differences in the use of net income in comparison to operating margin in the formula, the ratio EBIT/TA appears similar to ROA. Though the average sales growth is only 4.6% during 6 years, this rate follows the trend of the Indonesian economic growth of 6.5% in 2011 (Marchelo, 2012), and about 7% in 2012 (We, 2012; Marchelo, 2012). At the rate of 40%, tangible assets may appear sufficient for manufacturing firms since the majority of operational activities rely on the use of property, plant, and equipment. MTB and PBV appear parallel toward each other at the rate of 1.29 times, and 1.78 times, accordingly. At least, MTB and PBV provide the evidence that the going-rate in the market is higher than what the book value has recorded initially.

Table 5 provides the reliability statistics on the data set in this study. Surprisingly, though the data set was originally from the publicly listed financial statements, whose data were independently audited, the statistics shows that the reliability of this set of data is a mere 78%.

Table 5: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.569	.777	20

Source: SPSS

Table 6 shows the validity statistics. Though the results do not show a high validity of above 90%, nonetheless, these results appear sufficient to note the soundness of variables used in this study (Santoso, 2009; Schumacker and Lomax, 2004).

[10] According to www.oecd.org (2010), Brazil, China and India have grown 25% on the countries' medium and high-tech industries. Indonesia has only grown by 15%.

Table 6: Validity Statistics

Model	RMR	CMIN/DF	GFI	AGFI	PGFI
Default model	**0.067**	**1. 043**	**0.756**	**0.789**	**0.802**
Saturated model		1.000		1.000	0.000
Independence model	0.073	0.000	0.000	0.000	0.000

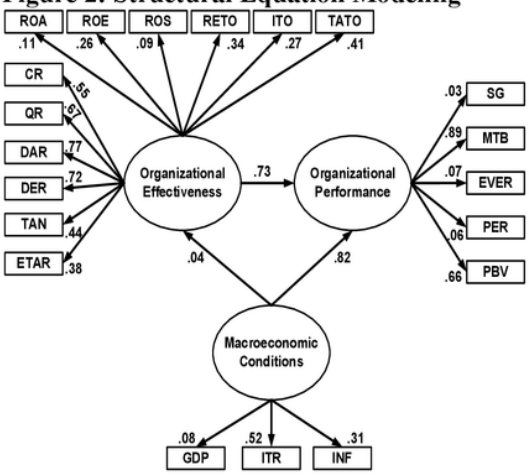
Source: AMOS

The structural equation modeling, as illustrated in Figure 2, indicates the following issues;

- The macroeconomic indicators are able to show some degrees of influence toward the macroeconomic conditions. Though the calculated result of influence for GDP is relatively minimal, at only 8%, however, GDP shows its impact toward organizational effectiveness. The influence of inflation rate appears higher than GDP, at 31%. Also, the influence of interest rate is at 52%. Based on this calculated results, it is safe to conclude that interest rate is a much better measurement for the macroeconomic conditions.

- The indicators for organizational effectiveness are able to show some degrees of influence. Though such degrees of influence vary from 9% to 77%, it is obvious that DAR and DER are the leading contributors for organizational effectiveness. This may be due to the relatively instant consequences of the country's macroeconomic conditions. Such an instant consequence of the country's macroeconomic conditions is also confirmed at the rate of 82%. Specifically, this is to say that, as the country's interest rates swells, firms experience immediate upward adjustments on interest payments. Likewise, as the country's inflation rises, firms face immediate upward adjustment toward higher working capital. This higher requirement on working capital may likely be financed via external funding. Hence, the fluctuation on DAR and DER may provide better signals toward organizational effectiveness. Though the results are not as high as DAR and DER, however, other indicators also pose influence. Based on this calculated results, though DAR and DER are much better measurements for the level of organizational effectiveness, other indicators are also influential at lesser degrees.

Figure 2: Structural Equation Modeling



- The existence of macroeconomic conditions influences 4% the level of organizational effectiveness. Though the level of influence is very minimal, it means with higher interest rates, higher level of GDP, and a higher inflation rate, organizations become more effective. Mathematically, this condition does not appear to support the theoretical understanding. Nonetheless, this finding seems to provide evidence that the betterment of macroeconomic conditions in Indonesia does not really affect the likelihood of firm's effectiveness. Regardless of what the conditions of the country's economy, improvement on effectiveness appears to be the internalities.

This means that management policies, actual practices, and competence of all personnel are the driving forces behind firm's effectiveness. This is an important finding that basically put personnel's role in the highest priority toward firm's effectiveness.

- Though the influential level varies from 3% to 89%, the indicators for organizational performance are able to show some degrees of effect. The calculated results show that the two highest contributors are MTB and PBV at 89% and 66%, respectively. This may be due to the impact of the market value of stock prices, which are coupled with inclusion of intangible asset in calculating MTB and PBV.

- The result shows that influence of organizational effectiveness toward organizational performance is 73%. This means that improvements on the firm's level of effectiveness over time favors the firm's performance. This appears to be logical since internal improvements are mainly targeted to boost organizational performance. These statistical evidences provide supports on managerial objectives toward the futures.

- The existence of macroeconomic conditions influences 82% the level of organizational performance. As interest rates rise, GDP rises, and inflation rates jump, organizational performance enhances. This finding seems to provide evidence that the betterment of macroeconomic conditions in Indonesia does affect the likelihood of firm's performance. Logically, this is true since the level of market value increases along with the betterment of the country's economy. This means that relatively minimal efforts are required to achieve the satisfactory performance, during booming economy. On the other hand, during economic downturn, hard work becomes the necessity to just maintaining the satisfactory performance.

Table 7: Rotated Component Matrix

	Component		
	1	**2**	**3**
GDP	.070	.208	**.923**
ITR	-.036	.370	**.741**
INF	.221	.216	**.524**
ROA	**.970**	.362	.154
ROE	**.966**	.276	.041
ROS	**.931**	.255	.377
RETO	**.812**	.163	.228
ITO	**.844**	.238	.119
TATO	**.862**	.220	.159
CR	**.701**	.045	.306
QR	**.723**	.186	.455
DAR	**.888**	.208	.224
DER	**.926**	.370	.227
TAN	**.748**	.216	.167
ETAR	**.697**	.362	.320
SG	.157	**.664**	.202
MTB	.243	**.739**	.133
EVER	.311	**.514**	.213
PER	.429	**.664**	.206
PBV	.234	**.777**	.097

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
[a] Rotation converged in 3 iterations.

Source: SPSS

Though this study does not intend to perform factor analysis, table 7 shows the statistical evidence on such differences. The rotated component matrix confirms that this study uses three different variables; "macroeconomic conditions", "organizational effectiveness", "organizational performance". Following slight modifications and adjustments with the data set, a total of three different components become feasible to note the differences among indicators. Component 1 consists of indicators for organizational effectiveness, component 2 consists of

indicators for organizational performance, and component 3 consists of macroeconomic conditions.

V. Conclusion & Recommendation

Based on the analysis results, this study is able to produce the following conclusions;

- Indicators for macroeconomic conditions, organizational effectiveness and organizational performance are conformed to be different from each other,
- Interest rates and inflation rates are better measurements of macroeconomic conditions.
- Though some influences are relatively minimal, DAR, DER, QR, and CR appear to be the major contributors to organizational effectiveness.
- Likewise, concerning organizational performance, MTB and PBV appear to be the major contributors, though the levels of influence of some indicators, are relatively minimal.
- The data set on macroeconomic conditions show some degrees of influence toward the level of organizational effectiveness at 4%, and organizational performance at 82%.
- The data set on organizational effectiveness show some degrees of influence toward the level of organizational performance at 73%.

Future studies are recommended to cover a much greater range of data set, incorporating longer years, and utilizing more variables and indicators.

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