

# The effect of non-financial performance on financial performance moderated by information disclosure

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## ABSTRACT

This research aimed to test the effect of non-financial performance on financial performance moderated by information disclosure. Balance scorecard was used to measure performance values in a comprehensive, coherent, measurable, and balanced. The research result showed that non-financial performance measures consisting of consumer, learning and growth perspectives affected financial performance, but internal business process did not affect financial performance. With cause-effect, learning and growth affect internal business process, and the internal business process affects customers Information openness does not have effect of non-financial performance relationship towards financial performance. This research suggests that companies need to increase customer satisfaction and employee-based and strategic alignment growth to improve the company's financial performance.

## ABSTRAK

Penelitian ini bertujuan untuk menguji pengaruh kinerja nonkeuangan terhadap kinerja keuangan yang dimoderasi oleh keterbukaan informasi. Alat yang digunakan untuk mengukur nilai kinerja secara komprehensif, koheren, terukur, dan seimbang yaitu balanced scorecard (BSC). Hasil penelitian menunjukkan bahwa ukuran kinerja nonkeuangan yang terdiri dari pelanggan, pembelajaran, dan pertumbuhan memengaruhi kinerja keuangan, tetapi kinerja proses bisnis internal tidak memengaruhi kinerja keuangan. Berdasarkan hubungan sebab akibat, pembelajaran dan pertumbuhan memengaruhi proses bisnis internal dan proses bisnis internal memengaruhi pelanggan. Keterbukaan informasi tidak memengaruhi hubungan kinerja nonkeuangan terhadap kinerja keuangan. Penelitian ini menyarankan bahwa perusahaan perlu meningkatkan kepuasan pelanggan dan pertumbuhan berbasis pada pegawai dan penyelarasan strategi untuk meningkatkan kinerja keuangan perusahaan.

## 1. INTRODUCTION

Company performance is an important value for stakeholders. If the company's performance is good, it will increase stakeholders' confidence and add its own positive value to management. In line with the trust of stakeholders, management must improve their company's performance and make decisions for the company's survival. In this case, manager's decision making must be delegated by the company as stated in the principal principle of the principal-agency theory. However, managerial actions are rarely directly observed by companies (Burney and Swanson 2010).

Discussion in the context of the principal-

agency theory is not only in the external sphere, namely the relationship between the principal (owner) and the agent (top manager), but it also includes the internal scope of the relationship between the top managers and the lowers. In relation to this relationship, the manager makes a decision to develop and implement strategies through common culture and centralized control (Kaplan and Norton 1996). Delegation of strategies is not as easy as the formulation and determination. Fortune magazine in 1999 stated that 70% of CEOs failed not because of bad strategies but because of poor execution (Niven 2002).

The success of implementing strategies will

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improve the performance of managers who then need to be evaluated using performance measures. One of the critical challenges facing organizations is choosing a measure of performance. This happens because performance measures play a major role in developing a strategic plan, evaluating the achievement of organizational goals, and compensating managers (Ittner and Larcker 1998b). Many people think that measurement is a tool for controlling behaviour and for evaluating past performance. However, control and performance measurement systems traditionally strive to keep individual and organizational units in line with predetermined plans (Kaplan and Norton 1996).

Traditional performance measurement systems prioritize financial size as a measure that reflects the performance of a company. But it is not entirely true, because there are still other performance measures that reflect company performance. Kaplan and Norton (1996) argue that financial measurement is considered to lead companies to make mistakes because they are oriented towards the past. Financial indicators only consider short-term actions at the expense of long-term value that creates short-term performance or results. Therefore, Kaplan and Norton (2005) introduce one measure to facilitate performance appraisal, namely the balanced scorecard (BSC).

The performance measurement introduced by Kaplan and Norton (2005) includes two perspectives, namely a financial perspective and a non-financial perspective. Nonfinancial perspective consists of the perspective of customer satisfaction, internal business process perspective, and learning and growth perspective. The performance measure used in the BSC perspective has a wide and flexible scope, so that it can be used not only in general (common measures), but also unique (unique measures). Using general measures, Lipe and Salterio (2000) found that these measures influence managerial evaluation of unit performance. Whereas Libby, Salterio, and Webb (2004) found that the requirement to justify evaluation to superiors or the provision of assurance reports to the BSC increased the use of unique measures in the evaluation of managerial performance.

Other studies have found that using unique measures (consumer data, business units, consumer satisfaction, load factors, market share, and the availability of tons of miles) in the consumer perspective influences financial performance (Banker, Potter, and Srinivasan 1998; Behn and Riley Jr 1999; Ittner and Larcker 1998a). However, the unique size in the perspective of internal

business processes partially influences financial performance (Bryant, Jones, and Widener 2004). Furthermore, unique measures in learning and growth perspective affect profit on financial measures (Bryant et al. 2004). Therefore, performance measures can be determined according to the conditions of the company without being separated from the concept that has been set.

BSC is used to improve managerial decision making by aligning performance measures with company objectives and strategies and business units. Managers also need to evaluate several subordinate units that might underuse or even ignore the unique size designed for each unit. It is due to the fact that the unique size is important in capturing business unit strategies. If there is an underuse in-side unique size, it can reduce the potential benefits of BSC (Lipe and Salterio 2000). In addition, the BSC must also contain lagging indicators and leading indicators, as well as three principles that allow the BSC to be related to strategies, namely causal relationships, performance boosters, and financial links to be used continuously and long-term (Burney and Swanson 2010; Ittner, Larcker, and Meyer 2003; Kaplan and Norton 1996; Niven 2002).

A well-established BSC clearly explains the strategy and makes obscurity and inaccuracy of the vision and strategy change into the measurement of selected objective performance (Niven 2002). Objectives and measures in the scorecard convey information in accordance with the organization's vision and strategy to create future values that are embedded in consumers, suppliers, employees, processes, technology, and innovation. In addition, the BSC also communicates improvements to employees, shareholders, creditors, and the community (Kaplan and Norton 1996).

Previous research found that communication was literally found to moderate the relationship between satisfaction and salary, while the accuracy of information proved to moderate the relationship between satisfaction and work. The communication dimension is a very good supporter of the accuracy of information, the desire to interact, the burden of communication, trust in superiors, the influence of superiors, and satisfaction with communication (Pettit Jr, Goris, and Vaught 1997). With direct communication, it results in high levels of job performance and job satisfaction. This occurs when there is congruence between individual needs (developments that require strength) and work characteristics (scope of work) (Goris, Vaught, and Pettit Jr 2000). In addition, communication

satisfaction and job satisfaction can be shown based on predictions in five personality traits, namely nervousness, extra-version, empiricism, responsibility, and compatibility with others (Arabshahi and Arabshahi 2014).

This study investigates the effect of non-financial performance on financial performance using performance measures in the BSC. In addition, it also examines information disclosure in influencing the relationship of non-financial performance to financial performance.

## 2. THEORETICAL FRAMEWORK AND HYPOTHESES

According to Niven (2002), performance measurement is defined as the tool that is used to determine whether the companies are meeting their objectives and moving towards the successful implementation of their strategy.

Hall (2008) argues that the extent of system performance measures (Performance Measurement Systems/PMS) positively influences managerial performance by increasing role clarity and psychological empowerment. The performance measurement system is primarily seen as the main mechanism used to make clear relationships so that the methods developed by the organization can be used to implement the real strategy (Otley 1999). Therefore, companies develop performance measurement systems (performance measures) not only evaluating performance, but also to helping align managerial actions with company goals (Burney and Swanson 2010).

The purpose of a performance measurement system directly helps to allocate resources to assess and communicate progress towards the objectives of the strategy, or evaluate managerial performance (Ittner and Larcker 2003). In addition, the company uses a Performance Measurement System (PMS) to turn down the role of Atkinson (2012).

Performance measurement shows the principal principle of the principal-agency theory of Jensen and Meckling (1976) which explains the agent's relationship in making decisions with the same goal to maximize company value, it is believed the agent will act in a manner that is in accordance with the interests of the principal. This relationship is not only in the external sphere, namely the relationship between the principal (owner) and the agent (top manager), but also includes the internal scope of the relationship between the top manager and the manager below.

Kaplan and Norton (2005) introduce BSC as a performance measurement system that is different

from traditional systems that exist first. BSC consists of two words: scorecard and balanced. The use of BSC enhances managerial decision making by aligning performance measures with company objectives and strategies and business units. Managers also need to evaluate several subordinate units that might underuse or even ignore the unique size designed for each unit. It is because of the unique size which is important in capturing business unit strategies. If there is an underuse inside unique size, it can reduce the potential benefits of BSC (Lipe and Salterio 2000).

BSC must contain a mix of lagging and leading indicators. Lagging indicators or outcome measures represent the consequences of actions taken previously. Lagging indicators report the results of past financial performance and include measurement measures such as earnings per share and return on capital used. In addition, lagging performance indicator without control could fail to inform the company hopes to achieve results. While the leading indicator or driver of performance (performance driver) is a measurement that directs the results achieved from lagging indicators. Leading indicators help project future financial performance and include measures such as employee satisfaction and customer satisfaction. Furthermore, leading indicators signal an increase through organizations, but do not provide improvements that lead to increased consumer and financial outcomes (Niven 2002).

### Financial performance

Financial performance shows how the company views shareholders (Kaplan and Norton 2005). The financial aspect is basically the estuary of all management decisions, actions and activities (Škrinjar, Bosilj-Vukšić, and Indihar-Štemberger 2008).

Škrinjar et al. (2008) state financial performance as a way of measuring organizational performance from a financial perspective such as the rate of re-turn on investment, profit in a currency over a period of time, and the average level of sales over a period of time. Škrinjar et al. (2008) found a number of indicators that explain the measure of financial performance as follows:

- a. Return on asset (ROA); ROA is the ratio between net incomes before available tax divided by total assets owned by the company.
- b. The amount of profit/ profit growth obtained by the company during the period certain.
- c. Return on Equity (ROE); ROE is the ratio of net income after tax to common stock equity,

measuring the rate of return on investment from ordinary shareholders.

- d. Sales growth for a certain period.
- e. Return on Investment (ROI) or Rate of Return (ROR) or the rate of return on investment, ie the amount of return received divided by the amount invested.

The BSC strategy and size have wide and flexible coverage, so that it can be used in various types of organizations to assess performance. The measure of performance is not only general (common measures), but also unique (unique measures). Unique size can be determined according to the condition of the company in assessing performance regardless of the concept that has been set. Johnson, Reckers, and Bartlett (2013) have developed a unique measure for a retail company study. In the BSC financial perspective, the unique measures developed are as follows:

- 1. Net sales margin
- 2. Sales growth
- 3. Comparison of the company's market share and the industry (market share) relative to retail space)
- 4. Inventory turnover.

### **Non-financial performance**

#### **Customer**

Customers are one of the non-financial performance, this performance shows how the perspective of customers views the company (Kaplan and Norton 2005). Many companies have difficulties in making customer measurements. The measurements that are widely used today during the measurement session are: customer satisfaction, market share, retention, and customer profitability. Each of these measurements is valuable when the results are known what drives performance (Niven 2002).

The customer perspective is very important needed to drive the customer value proposition in the combination of activities. This is needed to explain managers in differentiating themselves and the markets served. To develop a customer value proposition, Tucker, Meyer, and Westerman (1996) propose three "disciplines" namely as follows:

- 1. Operational Excellence is the term that describes specific strategy approaches for product production and delivery and services. The company's goal will be to follow this strategy to lead strategies industry at the best price and time (convenience).
- 2. Customer Intimacy; When companies pursue operational excellence that focuses on making

lean and efficient operations, it is necessary to pursue a customer intimacy strategy continuously by adjusting and determining products and services to make it continue Increased superiority determined by customers.

- 3. Product Leadership; Companies that follow the third discipline, product leadership; strive to produce the highest achievement of a state-of-the-art product and service that flows continuously. Achieving this goal is needed to challenge your-self in three ways, namely first to be creative, both companies must be so innovative commercialize ideas quickly, and third and most important are product leaders who must endlessly pursue new solutions to the problems of the last product or service they have to develop

Other sources that lead to measurements that are expected to be put forward by Niven (2002) are targets and financial measures (financial objective and measures), customer voice, real moments (moment of truth), see channels (look to your channels), work from customer experience, and customer relationship management initiatives (CRM initiatives).

In addition to the general size above, the unique size in the customer perspective can also be used to measure performance as used in the study of Johnson et al. (2013). The unique size of the customer perspective is as follows:

- 1. Repeated sales to the same customer (repeat sales)
- 2. The customer satisfaction (customer satisfaction rating)
- 3. The customer level returns in the percentage of sales (customer return as a percentage of sales)
- 4. Out of stock items.

#### **Internal Business Process**

Internal business process is the second nonfinancial performance. This performance shows what perspective must excel from the company (Kaplan and Norton 2005). This perspective identifies the core processes that must be mastered by the company in order to continue the added value for the customer, and ultimately for the owners of capital. To satisfy customers and owners of capital, managers must identify new internal processes as a whole rather than just focus on efforts in incremental improvements to existing activities (Niven 2002).

Three important points must be considered in measuring internal processes (Niven 2002):

1. Customer Intimacy-Focusing on Customer Service; More information the closeness that the company has about its customers, it will be more good for personal to anticipate and even predict customer patterns (Niven 2002).
2. Operational Excellence - Measuring the Supply Chain; Supply chain includes some physical dimensions, payment, information flow, and other dimensions such as social, technological, legal and administrative (Naslund and Williamson 2010).
3. Product Leadership-Innovating to Stay Ahead; Product leader success namely by providing customers with new and innovative products offers unique functions that are not offered by competitors. Key internal process of product leader is in-novation.

In addition, companies need to build relationships with the community including the government or regulators so that the business being run is a healthy business and minimizes future technical constraints (Niven 2002).

In addition to the general size above, the unique size in the perspective of internal business processes can also be used to measure performance as used in the study of Johnson et al (2014). The unique size of the internal business process perspective is as follows:

1. Audit rating related to "mystery shopper" ("mystery shopper" audit rating). Mystery shoppers can be used as industry benchmarks about customer perceptions regarding service results and process dimensions, such as service quality, shop environment, and personal selling experience, with use rating scale data (Finn 2001).
2. Shop structuring rating (store "elegance" rating)
3. Ranked vendor
4. Product return on suppliers

The internal business process perspective identifies the core processes that the company must master in order to continue the added value for the customer, and ultimately for the capital owner. To satisfy customers and owners of capital, managers must identify new internal processes as a whole rather than just focus on efforts in incremental improvements to existing activities (Niven 2002).

### Learning and Growth

Learning and growth are the third nonfinancial performance. This performance shows how the perspective of the company improves and creates value continuously (Kaplan and Norton 2005). This measurement is used to reach three other

perspectives in the BSC and is the foundation for the construction of the BSC. Measuring design in this perspective helps to close gaps and ensure sustainable performance for the future (Niven 2002).

The size of the learning and growth perspective is a measure of "enabler" for another perspective. One example of this perspective measure is employee motivation mixed with skills and operating tools. Mixing these sizes and then designing them in an organizational climate that is used to support organizational improvement is a key element in driving the improvement process to meet consumer expectations and ultimately driving financial profits. There-fore, several things to consider when measuring and harmonizing motivation are as follows (Niven 2002):

1. Employee satisfaction; In general, employees measure learning and growth with employee satisfaction assessment through data usage right. Therefore, it is known which fields need to develop corrective steps. Thus employees receive in-formation for specific actions needed to achieve the strategy (Ittner and Larcker 2003).
2. Alignment; The strategy through the target results and the size made individuals need to be aligned to facilitate the creation of scorecards in organizations. So the target will be reached 100% when fixing the size by analyzing and assessing the "level of alignment" of individual scorecards (i.e., the percentage of direct size related to strategic goals).

The measures of learning and growth used in assessing performance can also use unique measures other than the general measures described above. The unique measures in this perspective are as follows (Johnson et al. 2013):

1. The level of employee satisfaction
2. Training time allocated to employees each year (invested hours of training per employee per year)
3. The average tenure of the sales personnel
4. Advice for each employee at company (employee suggestion per employee per year)

The BSC framework which includes the four perspectives above is the result of the formulation and translation of the strategic planning system, mission, vision, goals, basic beliefs, basic values, and strategies into comprehensive strategic goals and balanced among various targets - selected strategic goals. After the formulation, a causal relationship is built, so that the resulting strategic goals be-come coherent. In addition, each strategic goal formulated is then determined by the size of

the measure and the performance measure so that each strategic target that has been formulated becomes measurable (Mulyadi 2014). Thus, the BSC runs in accordance with strategic targets that are comprehensive, balanced, coherent and measurable and run continuously for the long term.

Kaplan and Norton (1996) propose three principles that allow organizational BSCs to be related to strategies, namely:

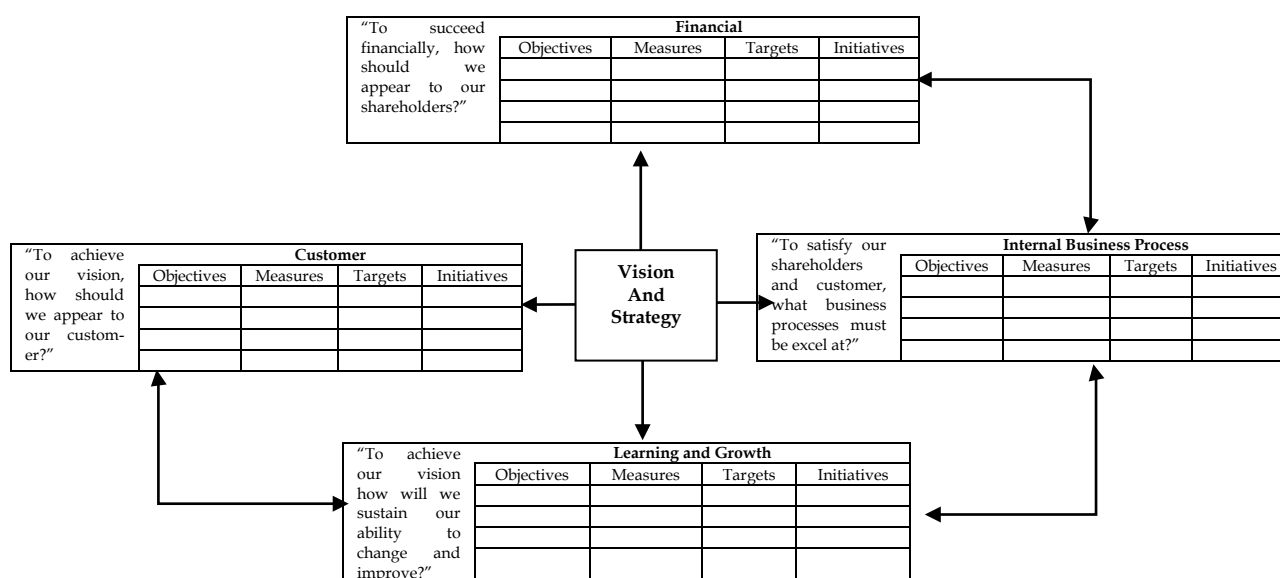
1. Causal relationships (cause and effect); Strategy is a set of causes and hypotheses. A causal relationship is a series last statement. A good conception of a scorecard can tell the history of a business unit through a series of causal relationships. Measurement system can make relationships (hypotheses) between goals and measures of perspective that are clear so that managers can regulate and validate. With thus it can be introduced and made clearly a series of hypothetical cause and effect relationships between outcome measures and drivers of performance for the results. Therefore That is, every measure chosen for the BSC must be an element of a cause-and-effect relationship that communicates the meaning of the business unit strategy to the entire company.
2. Performance drivers; Common sizes tend to be the core measures of results (outcomes) that describes the common goal of many strategies with a similar structure between industries and companies. These general outcome measures tend to be lags like indicators profitability, market share, customer satisfaction, customer retention, and employee capabilities. A performance booster is a lead indicator that spurs to be unique to a particular business unit. Performance boosters illustrate the uniqueness of business unit strategies.
3. Linkages with finance (linkage to financials); BSC must master strong pressure on outcomes, especially finance such as return on capital employed or economic value added. Many managers forget to link programs such as total quality management, reduced cycle times, reengineering, and empowerment of employees with results that are directly influence customers and produce future financial performance. The organization needs an improvement program for the final goal error taken, because it does not connect specific

targets to increase customers and financial performance quickly. So organizations receive disappointing results that are almost lacking in tangible payoff from program changes. Ultimately the causal path of all the measures in the scorecard should link financial goals.

BSC is a value-based management framework that combines many concepts contained in other conceptual models. In addition, BSC is a new development that has developed in management accounting in the last decade (Ittner and Larcker 2001). Previous research on the topic of BSC have been carried out, one of those topics that is reviewing the BSC using a common measure and unique business unit. Lipe and Salterio (2000) found that general measures influence managerial evaluation of unit performance. Whereas Libby et al. (2004) found that the requirement to justify evaluation to superiors or the provision of assurance reports to the BSC in-creased the use of unique measures in evaluating managerial performance evaluations.

Previous research found that the unique size of the customer perspective affected financial performance by using customer data, business units, customer satisfaction, load factors, market share , and the availability of tons of (Banker et al. 1998; Behn and Riley Jr 1999; Ittner and Larcker 1998a). However, the unique size in the perspective of internal business processes is partially consistent with the market share and the size of financial results is sensitive to be chosen as a variable (Bryant et al. 2004). Furthermore, for unique measures in the perspective of learning and growth performance affect profit on financial measures (Bryant et al. 2004).

The creating a balanced scorecard forced the managers to arrive at a consensus and the to translate their vision into terms that had meaning to the people who would realize the vision (Kaplan and Norton 1996). The objective and the measures for the balanced scorecard are more than just a somewhat ad hoc collection of financial and nonfinancial performance measures, they are derived from a top-down process driven by the mission and strategy of the business unit (Kaplan and Norton 1996). The translating company's vision and strategy is described in the balanced scorecard framework in Figure 1.



**Figure 1**  
**Translating Vision and Strategy: Four Perspectives**

From the explanation about BSC and empirical findings in Figure 1, the formulated hypotheses are as follows

- H<sub>1</sub>:** *Customer performance positively affects financial performance.*
- H<sub>2</sub>:** *Internal business process performance positively affects financial performance.*
- H<sub>3</sub>:** *Learning and growth performance positively affects financial performance.*

Using three principles (causal relationships, performance boosters, and relevance to finance), it allows the organization's BSC to be related to strategy (Kaplan and Norton 1996). Measures of learning and growth performance will influence the size of internal business process performance when using employee skills and abilities. Furthermore, measures of internal business process performance on customer performance are strong when using *inventory turnover* and product introduction (Bryant et al. 2004). The explanation can be formulated as follows:

- H<sub>4</sub>:** *Learning and growth performance positively affects the performance of internal business processes.*
- H<sub>5</sub>:** *The performance of internal business processes positively affects consumer performance.*

### Information Disclosure Communication

BSC is a set of performance measures used to assess organizational performance. Performance measures are used not only for short-term purposes, but also for long-term goals. Objectives and measures in the scorecard convey information in accordance with the organization's vision and strategy to create future values that are embedded in consumers, suppliers, employees, processes, technology, and innovation. In addition, the BSC also communicates improvements to employees, shareholders, creditors, and the community (Kaplan and Norton 1996).

Organizations develop organizational routines through effective communication to direct and integrate individual objective knowledge in the actual direction (Tucker et al. 1996). Messages in communication and organizational behaviour that are consistent, reliable, trustworthy, and predictable increase the results of employee work expectations and their effective attachment to the company (Barker and Camarata 1998). Therefore, organizational communication becomes effective if valid processes and messages present performance (Malina and Selto 2001).

BSC introduces strategy progress. *The scorecard* has greatly influenced the views and actions of users. This can be beneficial and detrimental. When BSC elements are well designed and effectively communicate, the BSC will appear to motivate and influence lower-level managers to adjust actions to

the company's strategy. The manager believes that the change results improve the performance of the sub-unit. However, deficiencies in designing BSCs and shortcomings in strategic communication have

The effect of unfavourable relationship is between top managers and middle managers. This has resulted in tension due to a lack of BSC design that exacerbates the difference between the views of managers in the future. Lack of communication also results in distrust and reluctance to change bad conditions (Malina and Selto 2001).

Furthermore, Nah and Delgado (2006) and Sumner (1999) in their findings regarding the critical success factors for implementing an Enterprise Resource Planning (ERP) system, argue that the communication plan must cover the rationale of details of changes in business process management, software demonstration, management strategy changes, the scope and progress of the project. In addition, communication that occurs between various functions or levels, and

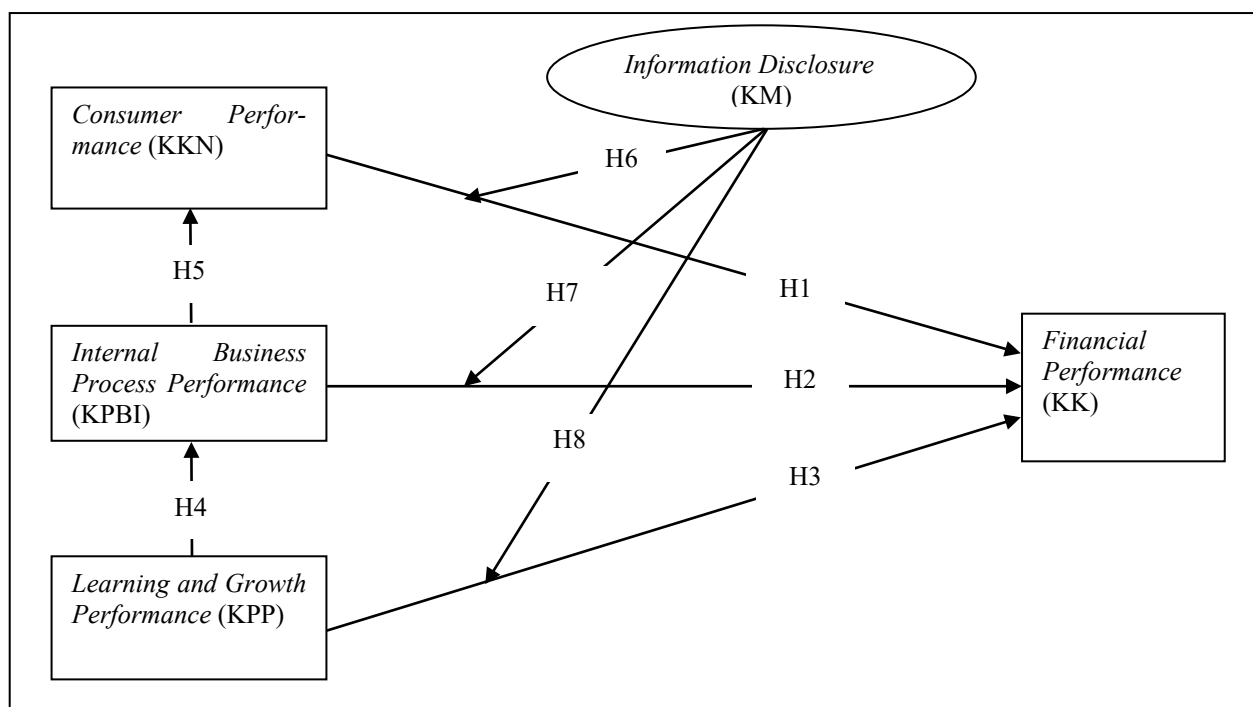
specifically between business personnel and information technology is a critical factor in ERP success (Finney and Corbett 2007). Thus the hypothesis that the researcher formulated was as follows:

**H<sub>6</sub>:** *Information disclosure affects the relationship of consumer performance towards financial performance.*

**H<sub>7</sub>:** *Information disclosure affects the relationship of internal business process performance towards financial performance.*

**H<sub>8</sub>:** *Information disclosure affects the relationship of learning performance and growth towards financial performance.*

The research framework is illustrated in Figure 2.



**Figure 2**  
**Research Framework**

### 3. RESEARCH METHOD

This research was conducted by survey method. Survey or complete self-administered survey is a method of collecting primary data by giving ques-tions to individual respondents

(Hartono 2013). In this study the survey was conducted using a ques-tionnaire. Questionnaires are strategies for collect-ing data using opinion strategies (opinions) collected through the opinions of respondents (Hartono 2013).



The population of this study is all accounting students in the strata 2 level (Masters Degree). The sample in this study was obtained by using a purposive sampling method. The sample criteria used in this study are such as knowledge; this criterion requires respondents namely students who have graduated in the course of management control systems and management accounting with active students enrolled in the master of accounting, master of management, accounting professional education program FEB UGM and YKPN Jogjakarta college of economics. The researcher used students as the respondents in Jogjakarta because it was easy to collect the data as controlled directly by the researcher.

This study is different from previous studies in using research samples. Previous research used managers as research samples, while this study uses undergraduate students as research samples.

This study does not use the manager's research sample because the researcher wants to test the model by looking at the students' perceptions of the perspective of the unique measure of BSC performance in the design of the research questionnaire presented.

The distributed questionnaires were measured using a Likert scale 1 to 5. The questionnaire was sent directly to students. The items in the re-search

questionnaire were adopted from previous studies. The description of the questionnaire design will be given a case narrative in a company organization. This design was made to reduce the experience bias due to the purposive sampling determined for the research respondents.

Before taking and collecting data, researchers conducted a pilot test. The researcher conducted a pilot test by distributing questionnaires to students of the FEB UGM Master of Science and Doctorate. The researcher conducted a pilot test twice. The first pilot was conducted by involving 55 accounting students consisting of 40 second semester students, 13 third semester students, and 2 students who were free of theory. The second pilot was conducted by involving 30 accounting students, consisting of 21 students in semester 3 and 9 students who were free of theory.

After conducting a pilot test, the researcher collected data with the number of questionnaires sent directly with the total number of 202 questionnaires. From the number of questionnaires that met the criteria was 193 people, while 9 people did not answer all the questions thus, it was with a response rate of 95.55%. This total is sufficient to do statistical testing. A summary of data collection is presented as a reference in table 1.

**Table 1.**  
**Summary of Delivery of Questionnaires**

College	Gadjah Mada University			STIE YKPN	Total
Master and Professional Programs	1	2	3	4	-
Number of Respondents	74	48	52	28	202
Number of Questionnaires that Are Not Eligible	4	-	4	1	9
Number of Eligible Questionnaires	70	48	48	27	193

\*Note: 1. Master of Accounting; 2. Master of Management; 3. PPAk; 4. Master in Accounting/Management

The research instrument used in the independent and dependent variables refers to Johnson et al. (2013). The moderation variable uses an instrument is adopted from Nah and Delgado (2006).

This study uses the SEM (Structural Equation Model) method with a variance (partial least square) approach. SEM-PLS can be very useful as an analytical tool to build future theories in management accounting, mainly based on compatibility to explore research questions (Nitzl 2016). However, the use of SEM-PLS in this study is not to develop theory, but to test the theory. One of

the main weaknesses of the SEM-PLS is that it is unable to produce a goodness of fit index that is useful in conformity assessment (fit) between a model according to the theory and the data used in the analysis (Sholihin and Ratmono 2013). However, through a statistical tool used in this study are the criteria to test the goodness-of-fit is the Standardized Root Mean Square (SRMR), Chi-Square ( $\chi^2$ ), and normed Fit Index (NFI).

#### 4. DATA ANALYSIS AND DISCUSSION

Before testing the research hypothesis, the researchers conducted a test of the measurement model. This test aims to verify indicators and latent variables. The tests include testing validity and

reliability. Validity test was measured by testing the convergent and discriminant validity of each indicator. Table 2 presents the results of the convergent validity test.

**Table 2.**  
**Test Results for Convergent Validity**

Indicator	Factor Loading	AVE
Financial performance (KK)		0.623
KK1	0.815	
KK2	0.802	
KK3	0.774	
KK4	0.765	
Customer Performance (KKN)		0.590
KKN1	0.788	
KKN2	0.703	
KKN3	0.816	
KKN4	0.761	
Internal Business Process Performance (KPBI)		0.579
KPBI1	0.739	
KPBI2	0.815	
KPBI3	0.811	
KPBI4	0.669	
Learning and Growth Performance (KPP)		0.616
KPP1	0.771	
KPP2	0.816	
KPP3	0.781	
KPP4	0.770	
Information Disclosure (KM)		0.684
KM1	0.805	
KM2	0.844	
KM3	0.831	

Based on the results of testing the validity as presented on Table 2, it indicates that the indicators have met convergent validity because all factor loading has a value of more than 0.7. The indicators that have a value of less than 0.7 are KPBI4 indicators with a value of 0.669. However, if the factor loading value between 0.5-0.7 it should still be a consideration for researchers not to delete the indicator as long as the construct has a value of 0.5 (Hartono and Abdillah 2014). From the table above, it can be seen that the AVE value for the construct of

internal business process performance is 0.579. So the researchers did not remove the indicator that had a loading factor less than 0.7. This AVE value is a coefficient to explain the variance in the indicator which can be explained by general factors (Widhiarso 2017).

Discriminant validity can be seen from cross loading values between indicators and measured constructs. Table 3 shows the results of cross loading.

**Table 3.**  
**Cross Loadings**

<b>Indicator</b>	<b>Cross Loading</b>
Financial Performance (KK)	
KK1	0.815
KK2	0.802
KK3	0.774
KK4	0.765
Customer Performance (KKN)	
KKN1	0.788
KKN2	0.703
KKN3	0.816
KKN4	0.761
Internal Business Process Performance (KPBI)	
KPBI1	0.739
KPBI2	0.815
KPBI3	0.811
KPBI4	0.669
Learning and Growth Performance (KPP)	
KPP1	0.771
KPP2	0.816
KPP3	0.781
KPP4	0.770
Information Disclosure (KM)	
KM1	0.805
KM2	0.844
KM3	0.831

From the results of testing the validity measured using convergent validity and discriminant validity above, it can be concluded that the validity of the measurements used in this study is fulfilled and valid.

Reliability test is used to show the level of consistency and stability of the measuring instrument or research instrument among respondents in understanding a concept or construct.

**Table 4.**  
**Cronbach's Alpha and Composite Reliability**

<b>Construct</b>	<b>Composite Reliability</b>	<b>Cronbach's Alpha</b>
Financial Performance (KK)	0.869	0.798
Customer Performance (KKN)	0.852	0.767
Internal Business Process Performance (KPBI)	0.845	0.756
Learning and Growth Performance (KPP)	0.865	0.792
Information Disclosure (KM)	0.866	0.769

Based on the results of the reliability test on Table 4, the composite reliability value and Cronbach's Alpha ( $\alpha$ ), each construct has a value above 0.7 (Hair, Hult, Ringle, and Sarstedt 2016; Sholihin and Ratmono 2013). Therefore, it can be said that the measurements used in this study are reliable.

#### **Assessing Inner Structural Models/Models**

Structural model in PLS is used to evaluate, using by using R<sup>2</sup>, the construct dependent. The value of R<sup>2</sup> is used to measure the degree of variation in the change of independent variables on the dependent variable (Hartono 2013). The results of the measurement of the value of R<sup>2</sup> are illustrated as on Table 5.

**Table 5.**  
**Value of R-Square**

	<b>R-Square</b>	<b>Adjusted R-Square</b>
Financial Performance (KK)	0.740	0.730
Customer Performance (KKN)	0.448	0.446
Internal Business Process Performance (KPBI)	0.380	0.377
Information Disclosure (KM)	0.439	0.421

Table 5 and Figure 1 show that the variation in variable changes in consumer performance is 44.8%, while the rest is explained by variables outside of this research model. Process Performance of Internal Business has a value of 38.0%, while the rest is explained by variables outside the research model. Communication has a value of 43.9%, while the rest is explained by variables outside the research model. Financial performance has a value of 0.740. This means that variations in changes in Financial

Performance can be explained by the variables of Consumer Performance, Process Performance of Internal Business, and Communication are 74.0%, while the remainder is explained by variables outside the research model.

In addition to measuring the construct of the research variable, goodness-of-fit testing is also needed to assess the fit between a model according to the theory and the data used in the analysis.

**Table 6.**  
**Model Fit - Goodness of Fit**

<b>Goodness-of-Fit Criteria</b>	<b>Saturated Model</b>	<b>Estimated Model</b>
SRMR	0.073	0.143
d_ULS	1.017	3.874
d_G	0.485	0.637
Chi-Square	466,649	513,693
NFI	0.744	0.719

From Table 6, the criteria for goodness of fit model from the Standardized Root Mean Square (SRMR) criteria have a value below 0.08, which is 0.073. The value of SRMR can be said to have met the criteria for model fit. The Chi-Square Criteria (X<sup>2</sup>) has a value of 466,649. This value indicates that it has met the criteria for model fit. The Normed Fit Index (NFI) criterion has a value close to 0.9 which is

0.744. The value of NFI can be said to meet the criteria for model fit. From the overall testing of the goodness of fit, it can be concluded that the model built in this study is appropriate.

The value of path or inner model coefficients shows the level of significance in testing hypotheses (Hartono 2011). The results of data processing with SmartPLS 3 are presented on Table 7.

**Table 7.**  
**Inner Model Results**

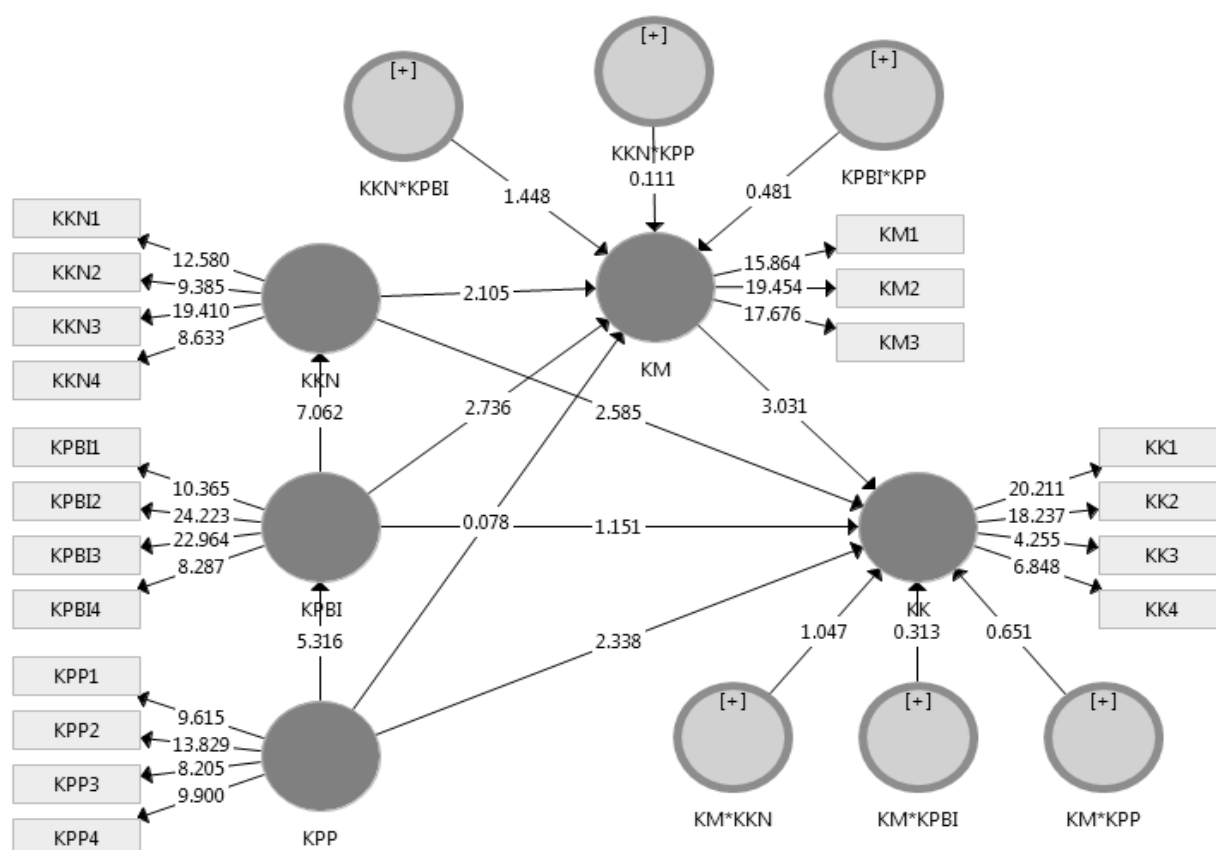
	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>T Statistics ( O/STDEV )</b>		<b>P Values</b>
KKN → KK	0.212	0.218	0.082	2.585	Supported	0.010
KPBI → KK	0.084	0.086	0.073	1.151*	Not supported	0.250
KPP → KK	0.186	0.181	0.080	2.338	Supported	0.020
KPP → KPBI	0.616	0.591	0.116	5.316	Supported	0.000
KPBI → KKN	0.670	0.652	0.095	7.062	Supported	0.000

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (  O/STDEV  )		P Values
KM*KKN → KK	-0.068	-0.043	0.065	1.047*	Not supported	0.295
KM*KPBI → KK	0.016	0.009	0.050	0.313*	Not supported	0.754
KM*KPP → KK	-0.035	-0.057	0.053	0.651*	Not supported	0.515

Description : \*significant 5% (t count> 1.64).

Note : KK (Financial Performance); KKN (Customer Performance); KPBI (Internal Business Process Performance); KPP (Learning and Growth Performance); KM (Information Disclosure)

T-Table is determined significantly at alpha 0.05 inner research model are illustrated in Figure 3.  
(Calculate more than T- table 1.64). The results of the



**Figure 3.**  
**SmartPLS Test Results**

Based on beta coefficient values and t- statistics values in table 7 above, the test results for each hypothesis are as follows:

*Hypothesis 1* states that customer performance positively influences financial performance. The results of the hypothesis test indicate that the beta coefficient value is 0.212 and the t- value is 2.855. That is, hypothesis 1 is supported. These results are consistent with Banker et al. (1998), Behn and Riley Jr (1999), and Ittner and Larcker (1998a) who find

unique measures in the customer perspective affecting financial performance by using consumer data, business units, customer satisfaction, load factors, market share, and the availability of tons of miles.

*Hypothesis 2* states that internal business process performance positively influences financial performance. The results of the hypothesis test indicate that the beta coefficient value is 0.084 and the t- value is 1.151. This means that the performance

of internal business processes does not positively affect financial performance. That is, hypothesis 2 is not supported. This result is consistent with the findings of Bryant et al. (2004) that the unique size in the perspective of internal business processes partially influences the market share and size of financial results.

*Hypothesis 3* states that learning performance and growth positively influence financial performance. The results of the hypothesis test indicate that the beta coefficient value is 0.186 and t-value is 2.338. That is, hypothesis 3 is supported. This result is consistent with the findings of Bryant et al. (2004) that the unique measure in the perspective of learning performance and growth influences profit on financial measures.

*Hypothesis 4* states that learning performance and growth positively influence internal business process performance. The results of the hypothesis test indicate that the beta coefficient value is 0.616 and t-value is 5.316. That is, hypothesis 4 is supported. *Hypothesis 5* states that internal business process performance positively influences consumer performance. The results of hypothesis testing indicate that the beta coefficient value is 0.670 and t-value is 7.062. That is, hypothesis 5 is supported. Hypotheses 4 and 5 are formulated based on three principles (causal relationships, performance boosters, and financial linkages) BSC proposed by Kaplan and Norton (1996). Using these principles, the results of hypotheses 4 and 5 are found to be consistent with Bryant et al. (2004), namely the measure of learning performance and growth will influence the size of internal business process performance when using employee skills and abilities. Furthermore, the measurement of internal business process performance on consumer performance is strong when using inventory turnover and product introduction.

In testing the moderation effect, the output of significance test parameters is seen from the Total Effect in the statistical test results table. It is because the moderating effect is not only testing the direct effect of the independent variable to the dependent variable, but also the interaction between the independent variable and the moderating variable on dependent variable (indirect effect) (Hartono 2013). Based on the Total Effect table of the bootstrapping iteration results in Table 7, the results of hypothesis testing for moderation effects are as follows:

*Hypothesis 6* states that information disclosure positively influences the relationship between consumer performance and financial performance.

The results of hypothesis testing using the communication construct as a moderator indicate that the T-statistic value is  $<1.64$  which is equal to 1,047. This means that information disclosure does not affect the relationship of consumer performance towards financial performance. That is, hypothesis 6 is not supported.

*Hypothesis 7* states that information disclosure positively influences the relationship of internal business process performance towards financial performance. The results of the hypothesis test indicate that by using the communication construct as moderating, the T-statistic value is  $<1.64$  which is equal to 0.313. This means that information disclosure does not affect the relationship of internal business process performance towards financial performance. That is, hypothesis 7 is not supported.

*Hypothesis 8* states that information disclosure positively influences the relationship between learning performance and growth on financial performance. The results of hypothesis testing using the communication construct as a moderator indicate that the T-statistic value  $<1.64$  is equal to 0.651. This means that information disclosure does not affect the relationship of learning performance and growth towards financial performance. It means that hypothesis 8 is not supported.

The findings of hypotheses 6, 7, and 8 are consistent with previous findings, namely deficiencies in designing BSC and deficiencies in strategic communicating have the effect of unfavorable relationships between top managers and middle managers. This has resulted in tension due to a lack of BSC design that exacerbates the difference between the views of managers in the future. Lack of communication also results in distrust and reluctance to change bad conditions (Malina and Selto 2001). Another possible explanation for the variables that affect this performance relationship is because it is used in short-term financial performance measures (Ittner et al. 2003), while the BSC concept is used continuously and in the long term (Kaplan and Norton 1996).

## 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

This study showed that non-financial performance measured using the BSC, customer and learning and growth positively affected financial performance, internal business process performance did not affect financial performance. Furthermore, learning and growth affected internal business process influenced and this then

influenced customer perspective. Last, Information disclosure as a moderating variable does not affect the relationship of non-financial performance towards financial performance.

There are some limitation of this study. First, this study did not assess the company performance directly by asking managers who run business, rather than used students as counselors. Second, this study used only one period of each measure of performance. Third, this study only used respondents from one province, namely Yogyakarta.

Based on the results, companies are suggested to promote customer satisfaction. They also need to improve employee satisfaction by giving them opportunities for training and career development. Companies also need to better align strategy with key performance indicators.

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