Literature Studies on Intangible Assets: From the Perspectives of Theory of the Firm

Sam PD Anantadjaya
ETC & Foundation, Bandung, Indonesia
bmw@bdg.centrin.net.id

Abstract

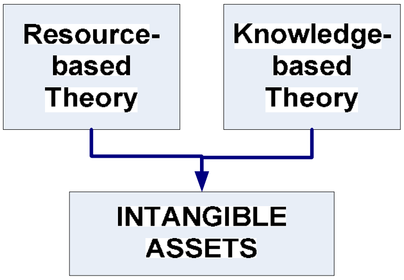
Banyak organisasi yang mendasarkan keunggulan bersaing mereka kepada sejumlah sumber daya yang berwujud (tangible assets). *Hal ini tentu saja dapat mudah untuk diterima dan dimengerti dengan baik oleh karyawan dan manajemen. Namun, dewasa ini, ternyata keunggulan bersaing organisasi juga sudah harus menggunakan sumber daya yang tidak berwujud* (intangible assets) *seperti; informasi, hubungan dengan pelanggan, keahlian karyawan, kemampuan manajemen, sistem dan prosedur. Hal ini dapat dilihat jelas dengan membandingkan nilai buku dan nilai kapitalisasi pasar yang dapat diraih oleh organisasi tersebut. Hal ini dimungkinkan dengan kehadiran informasi dan kemampuan untuk menggunakan informasi tersebut menjadi sebuah keunggulan bersaing organisasi yang sulit untuk ditiru oleh pesaing. Pembelajaran mengenai sumber daya yang tidak berwujud ini menggunakan dasar teori organisasi sebagai acuan awal.*

Keywords: intangible assets, theory of the firm, economics, strategic management

I. <u>Introduction</u>

This paper attempts to analyze the importance of intangible assets for firms in today's business environment. Particularly, this paper attempts to use the perspective of the theory of the firm in building up an overview on the importance of the intangible assets for organizations. The usual competitive base on the use of tangible physical assets has swayed away toward the new competitive base of intangibilities. Publications have certainly cited an increasing trend toward the utilization rate of intangible assets as one production capital in firms. Value-creation and value-added are the basic driving force for such a push. The effective utilization and management on such intangibilities plays a crucial role in ensuring firm's viability (Tanaszi and Duffi, 2000). The substantial analyses on comparing book value and market value have become common practices today. The significant increase of the firms' book value over a relatively short period has certainly triggered the flock of investigation into this area. This is mainly true for firms that are knowledge-based firms, which are mostly dominated by information technology firms, including other firms that put forth information as their business driver toward future advancement (Anantadjaya, 2008; Chadturi and Tabrizi,

Figure 1: Framework of Thinking



1999).

The theories of the firm[1] provided the first foundation on how firms are viewed years ago. As time passes, contemporary views on firms have emerged to expand the horizon on the original boundaries of the theory of the firm, which eventually puts forth the notion of intangible assets. Kaplan and Norton (2004) also supported the importance of intangible assets to create long-term value on the organizational strategic alignment. Specifically, learning and growth perspective of the Balanced Scorecard (referred to herein as "BSC") attempts to describe the organization's intangible assets and their roles in the organization-wide strategy.

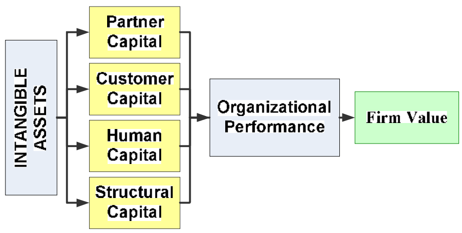
Though the illustration of the framework of thinking begins with the resource-based and knowledge-based theory of the firm, this paper attempts to focus on the intangible assets in organizations as a way to boost competitive advantage of firms.

II. Definition of Intangible Assets

The word "intangible" basically refers to the inability of being defined or determined with certainty. Thus, "intangible assets" refer to the undefined, undetermined, or non-physical objects with potential to generate future profits (Anantadjaya, 2008). Unlike products, intangible assets lack of formation and shape, which makes it relatively impossible for anybody to grab and hold. Services certainly fall under this category.

According to Anantadjaya (2008), the used of intangible assets is interchangeably with other commonly used terms, such as; knowledge assets, and intellectual capital. If the term "intangible assets" are widely used in the field of accounting, the term "knowledge assets" are commonly applied in economics, whereas the term "intellectual capital" refers to managerial and legal practices. Looking from the managerial and legal practices, intangible assets, or known in this field of studies as intellectual capital, can be divided into four different forms as the organizational competitive base (Edvinsson and Malone, 1997; Stewart, 2005; Anantadjaya, 2008);

Figure 2: Components of Intangible Assets (according to Anantadjaya, 2008)



1. **Human Capital**, consists of skills, talents, and any types of capabilities in any organizations. This appears to be the main driving force on organizational competitive base since all other types of capitals required the presence of human resources, and thus, human capital as well, prior to the actual start-up and development.

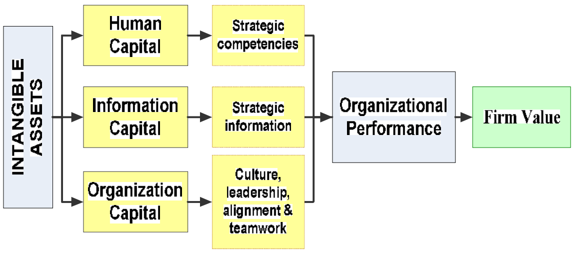
[1] This includes the Coasean Theory of the firm, growth theory of the firm, the entrepreneurship growth theory of the firm, resource-based theory of the firm, and the knowledge-based theory of the firm.

2. **Structural Capital**, consists of systems, procedures, policies, and rules in any organizations, which allow the effective utilization of HC in creating the organization-wide information systems as well as managerial competences.

3. **Customer Capital**, makes up of customer relationships in any organizations, which allow the effective utilization of HC in creating the necessary customers-own-version of SC[2], in the form of database to establish the customer relationship management, while recognizing to whom products and services are sold to.

4. **Partner Capital**, consists of other individuals and/or other institutions with whom a particular organization is establishing cooperative agreements with. It means that organizations should have strategic partners in dealing with operational activities while maintaining cutting-edge position in the marketplaces (Anantadjaya, 2008). This type of resources denotes strategic value-creation for organizations.

Figure 3: Components of Intangible Assets (according to Kaplan and Norton, 2004)



In contrast to the above segregations on intangible assets, according to Kaplan and Norton (2004), however, intangible assets can also be divided into three different forms as the organizational competitive base;

1. **Human Capital**[3] consists of skills, talents, and expertise to perform all necessary activities required by the previously set strategy. This is similar to what has been described above.

2. **Information Capital**[4] consists of the availability of information systems, knowledge application, and infrastructure required to support the execution of strategy.

3. **Organizational Capital**[5] consists of shared vision and mission, availability of qualified leaders at all levels to mobilize the organizations toward strategies,

---

[2] This can take various forms, such as; a complete database to establish customer relationship management, customer research, web sites, and e-commerce, perhaps.

[3] It is referred to as "**strategic competencies**", and are accounted for about 80% in BSC's objectives (Kaplan and Norton, 2004).

[4] It is referred to as "**strategic information**", and is accounted for about 80% in BSC's objectives (Kaplan and Norton, 2004).

alignment of goals and incentives with the strategy at all organizational level, and the sharing of knowledge and staff assets with strategic potential.

Hence, it is evident that the four components of intangible assets should be in-place to support the overall organizational performance, and thus, increasing the firm's value. Lacking on any of the components of intangible assets may diminish organizational competitiveness in facing the heavy turbulence in the environment. Hence, strengthening the components of intangible assets will provide significant boosts for the organizational performance into years to come. This is simply due to the difficulties of copying or duplicating those intangible assets by competitors.

III. Theoretical Reference

III.1. Overview

The theory of the firm has been used and widely cited to seek explanations on what is actually happening behind the scenes in various organizations. The actual allocations of resources of a firm are driven by price mechanism. Also, the actual operational activities of transforming inputs into outputs, are basically seen as a black box that outsiders may not have the ability to comprehend (Anantadjaya, 2008).

For this reason, the mastery in allocating factors of productions is considered as the source of sustainable competitive advantage in the management field. This has become one of important areas and fields of study in strategic management. The prominent signals toward allocation of factors of productions in relation to firm's sustainability have been emerging in recent years through the rise of strategic management (Anantadjaya, 2008). Objective toward growth, including aims toward realizing value-creation and value-added, appears to be the basic driving force for firms. In this case, the effective utilization and management on company's resources plays a crucial role in ensuring firm's viability (Tanaszi and Duffi, 2000).

According to Anantadjaya (2008), Edith Penrose, in her famous article of "The Growth of the Firm", industrial effect can potentially bring about successful achievement and sustainability of firm's performance. On average, as the industry improves itself by adopting technology, acquiring skills, and producing better products, firms must attempt to follow such a trend in order to ensure their existence in the marketplace. The Penrosean theory of growth of the firm stated that growth[6] represents the end-result of a mixture of creative and dynamic interaction between productive resources of the firm while matching them to the market opportunities.

---

[5] It is referred to as "**culture**", which is accounted for about 90% in BSC's objective, "**leadership**", which is accounted for about 90% in BSC's objectives, "**alignment**", which is accounted for about 70% in BSC's objectives, and "**teamwork**", which is accounted for about 60% in BSC's objectives.

[6] As stated by Anantadjaya (2008), in the growth theory of the firm, the term "growth" is defined as "*a mixture of creative and dynamic interaction between productive resources of the firm while matching them to the market opportunities*". The concentration is on productive resources only since these productive resources are benefiting firms the most by bringing sales and profits.

Limited availability of firm's various resources are likely to portray hurdles toward firm's growth and expansion. All this time, firms have been relatively concentrating themselves on managing installed and utilized resources. The impact of this wave affects the use of both productive and unproductive resources. In other words, since the firm's concentration is usually on the internal productive resources, it has a tendency to increase demands toward maximizing the use of the unproductive resources. The success of the firm may certainly rest on that final product. However, today's firms are relying on new products, which are substantially different from their original products that they were once based their success upon (Anantadjaya, 2008).

III.2. Resource-Based View

The theory of the firm has experienced substantial improvements in their scopes of coverage. By mid 1980's, there were several writings that introduced a new way of looking into an organization from its resources[7]. The idea emerged as the previously known theories suggested that organizations must rely on their resources, both productive and unproductive, in order to maintain continuous growth. Also, all this time, it appears that firm and management practices are bounded by stable environment with minimal change over time (Anantadjaya, 2008). Due to the assumptions of having a stable environment, management ought to formulate consistent strategies. Inconsistencies in strategy formulations may lead to abrupt and drastic change in the firm's operational activities (Anantadjaya, 2008). Nevertheless, recent studies show that researchers have directed their attention more to the role of flexibility as the firm's source of competitive advantage due to the increasingly turbulence business environment. To win competition, speed becomes important. Flexible responses are also crucial to positively affect the firm's performance. For those reasons, resource-based view[8] has claimed its position among the prevailing theories, as a new way of approaching and/or otherwise evaluating the sustainability of organizational competitive advantage (Anantadjaya, 2008).

The perspectives of the resource-based theory indicate that firm's resources directly represent capabilities of the firm, whereby firm takes the stand as its basis for strategies. Hence, firm's resources represent the major contributor for firm's earnings. As to firm's profitability, however, the competence level of internal

[7] The preliminary studies on firm's resources were first initiated by Penrose (Anantadjaya, 2008), who initially researched the internal management processes and practices. The management processes and practices were heavily influenced the organization-wide behaviors. Such behaviors lead firms into dynamic interactions with other firms, while attempting to improve the creative thinking of management. Acquiring additional resources from external sources may be one sign of outcome from the dynamic interaction and creative thinking of management. Thus, firms are no longer constrained to only a bunch of resources on-hand.

[8] "Resource-Based Theory" appears more appropriate to refer to the "Resource-Based View", which was originally introduced. The word "view" seems to portray inconsistencies on the approach concerned. Resource-based theory has been widely publicized in academic and popular literatures. Resource-based theory has also been widely accepted and used as a reference in many business practices, particularly on formulating strategic management approaches (Anantadjaya, 2008).

human capital in managing all resources represents the key ingredient to succeed. Resource-based theory points out that firm's performance is not driven by any characteristics of industry settings, but rather firm's performance portrays the unique firm's resources and capabilities of the firm in making a good use of market opportunities and stay ahead of the competition[9]. This is particularly true since firm's resources are viewed as inputs to the production processes. This is to say that a single resource, though it may be expensive, valuable, and unique, cannot produce firm's competitive advantage by itself. Combination of resources is the key success to achieve the competitive advantage. Another invaluable ingredient is the integration of resources from various business units of a particular firm (Anantadjaya, 2008).

Whenever one refers to firm's resources, it covers all aspects of resources that a particular firm utilizes. This includes the following, but not limited to; assets, capacity (installed and utilized), skills, competence, firm's business process, firm's systems and procedures, and information management, knowledge (discovery, creation, implementation, and management). Such resources are supposedly owned and controlled by management for effective and efficient use in the production cycles. Firms are said to have sustainable competitive advantage when firms are practicing continuous value-creation strategy despite what competitors are doing at the time being. Such a value-creation strategy should work well in times when competitors are incapable of doing. To successfully doing this, firms must ensure that all strategic resources are available for use upon which time when the value-creation strategy will be implemented. For sure, value-creation strategy should ensure value-added benefits, unique, rare, relatively difficult to imitate, and relatively difficult to find substitutes. In a way, those value-creation strategies are saying similar issues as Morrison's second curve[10] in mid-1990's (Anantadjaya, 2008).

III.3. <u>Knowledge-Based Theory of the Firm</u>

[9] In this context, the term "market opportunities and staying ahead of the competition" refers to market conditions, which include the following, but not limited to; technological advancement, deregulation, high interest rates (for capital borrowings from financial institutions), shorter product life-cycles, new entrants as competitors, capital market pressures, inflation, lower purchasing power, higher exchange rates (between domestic currency and foreign currency), changing consumers' preferences and tastes, higher consumers' expectation toward product and service qualities, emergence of product substitutes, increasing consumers' needs, globalization, and innovation. These revolutionize both the competitiveness and uncompetitiveness of product and services in the market, which are commonly characterized by either rapid geographical expansions, or restrictive geographical boundaries, for instance (Anantadjaya, 2008).

[10] Morrison's second curve (Anantadjaya, 2008) attempted to differentiate between the traditional and contemporary ways of doing things within firms. In the unstable economy, there are new conditions, new ideas, new technology, and new consumer that are demanding products and services to be delivered faster than ever, better than ever, and cheaper than ever. Also, the new consumer group demands products and services to be available at anytime and anywhere the consumer want them. Any new products and services are basically demanded with much shorter product life cycles.

Knowledge and the management of knowledge[11] certainly play an important role in firms. Knowledge deficiency, logically, leads to inability to perform what was planned. Similarly, absence of knowledge management leads to redundancy in any works performed. This is particularly true in today's environment with huge variations and turbulence. Firms must understand the essence of maintaining and constantly upgrading the intellectual capital.

At a much bigger perspective than a firm, the Ministry of Communication and Information Technology of the Republic of Indonesia (Anantadjaya, 2008) has already formulated a blueprint toward improving the country's human resources on information and communication technology. From the blueprint, it can be conferred that it is indispensable to upgrade the quality of human resources-dependency on information. As human resources become more aware of various information, the level of awareness is likely to increase as well. As the level of awareness increases, citizens of Indonesia will become more knowledgeable. Advances on human resources knowledge will boost competencies on doing things, thus, developing the quality of human resources in Indonesia. As this progress, Indonesia will also improve its competitiveness in the global market. The cycle continues. Referring to the blueprint, the Ministry of Communication and Information Technology (Anantadjaya, 2008) has clearly distinguished 5 (five) key success factors[12] in trying to implement such a blueprint – strong leadership, appropriate skills, system incentives, sufficient resources, and sets of action plans. Shortages in any of those key success factors may lead to unsuccessful incompletion of the blueprints. Thus, it is important to have all ingredients mixed together in order to reach the full intention of change and improvement of the human resource.

III.4. Intangible Assets

III.4.a. The Economic Perspective of Intangible Assets

The objective of a firm is to maximize its profits, via economies of scale and scope (Besanko, et al, 2007). It is, thus, expected that the maximized profits are spilled-over to the maximized shareholders' wealth[13] through the

[11] This is widely known as "knowledge management" (Anantadjaya, 2008).

[12] According to the Center of Research of the Ministry of Communication and Information Technology (Anantadjaya, 2008), the fulfillment of all five ingredients will lead to change. One should note that there are five potential results when any of the elements are missing. First, the stage of confusion exists when there is no strong leadership to escort the process. Second, the stage of anxiety exists when there are no appropriate skills that have been acquired by the people, yet those people must immediately understand the intricacies of change in relation to the information and communication technology. Third, the stage of stagnancy exists when there are no system incentives. Fourth, the stage of frustration exists when there are insufficient resources to support the necessary changes. Fifth, the stage of false start exists when there are no action plans, which details the path and direction to go.

[13] The shareholders' value is critically dependent on the firm's ability to transform inputs into outputs, and not necessarily only on the pricing strategy. In other words, quality does not affect successful strategic investments of any given firm. Nevertheless, a main issue remains unclear whether such successful strategic investments are still profitable to boost the firm's value. In this context, a diversification in product quality may not bring substantial increment in firm's profitability. Only the ability to offer value-added products/services can ensure the consumer surplus along the long-run incremental costs (Foros, 2003).

additional distributions of dividends[14]. In this discussion, a topic on diversification is used as an example to build on argument on the economic value of organizational intangible assets (Anantadjaya, 2008).

When a firm decides to diversify, it represents the time that entrepreneurs are started to think about broadening the firm's economies of scale and scope. By definition, diversification means that firms start to produce multiple goods and services. These products and services may well be targeted also for multiple marketplaces. Diversifications also mean that owners/managers start to look for various opportunities to reduce the costs of production. When a firm diversifies, it attempts to establish dominant market share within a specific industry (Besanko, et al, 2007). This is in accordance with the cultural school of thought, which states that the pre-existing dominant value affects the ability to adopt, accept and implement necessary changes for the firm (Mintzberg, et al, 1998).

If one uses the perspective of Penrosean theory of firm's growth (Anantadjaya, 2008), it is evident that the concentration of utilization rates on productive and unproductive resources becomes the key ingredient in firm's sustainability. This has also been confirmed by other theories of the firm[15]. It should be logically accepted that during any given time, firms may have resources that cannot be fully utilized on the current production lines. Managers will have to start thinking creatively on increasing the utilization rates on those underutilized resources. Applying those underutilized resources in other marketplaces will improve the economies of scope for the firm (Besanko, et al, 2007). Synergies among firms suggest that firms are looking for ways to improve their profitability levels by means of working closely together; perhaps, by sharing their available technologies and production process facilities. In essence, the financial synergies may create an immediate boom in market size. This enhances the dominance of firms in a specific industry, at least. Smaller firms can tap into other marketplaces than it otherwise could, alone. Same stories for bigger firms, in fact. Though it may not always be the case, in the longer run, financial synergies are targeted to smooth-out future cash flows (Besanko, et al, 2000). Coordination of various resources, in particular, aims to increase the utility of unproductive resources, firms can now engage in relatively full capacity without reducing the current level of production.

---

[14] This implicitly assumes that entrepreneurs and managers are rational people. They will always act rationally. They will always make rational decisions. Thus, this implies that entrepreneurs and managers will always act rationally, for the organizational best interest, in accordance with what is right for the organization's maximum profits (Anantadjaya, 2008).

[15] This includes the growth theory of the firm, the entrepreneurial theory of the firm, the resource-based theory of the firm, and the knowledge-based theory of the firm.

Likewise, if the firms agree to the operational synergies between each other, then the market share of the combined firms should likely to increase. This is logically acceptable since the operational synergies tend to create efficiency in production activities by means of sharing on production processes. This occurrence is evident if positive changes in market share of the combined firms are expected to bring about potential gains. Firms can start engaging in product diversity as well as covering a larger marketplace (Besanko, et al, 2007).

Through synergies, firms are hoping to excel in minimizing their transaction costs. Last year's mega-deal between Cathay Pacific and China's Dragonair was the evident of increasing economies of scale and scope. Prior to the mega-deal, Cathay Pacific cannot enter the mainland China. For Cathay Pacific, this limitation portrays opportunity costs of losing potential business of flying people into the mainland China. In order to do so, prior to the mega-deal merger, Cathay Pacific must obtain necessary cooperation and clearance from Dragonair to carry Cathay's passengers into the mainland China. There are certainly costs entail in such a transaction. Following the mega-deal merger, however, since both firms are now operating under one roof, Cathay Pacific's available facilities are fully accessible for Dragonair passengers without additional charges. Though flying with a different "flag-carrier" still to-date, following the deal, Cathay Pacific can now fly direct into China. This enables Cathay Pacific to tap into a much larger market share (CFO Asia, 2006). This deal will bring down the transaction costs substantially for Cathay Pacific, not only for commercial flights, but also for air cargo, catering services, in-flight sales, and the use of airport lounges. The overall operating costs of Cathay Pacific can now be distributed into 2 airliners. Swapping of all available resources[16] between the two organizations can also be implemented more easily. Such a situation is complimented by Mansi and Reeb (2002) that diversification provides a leverage toward economies of scale since more efficient operations are possible and more profitable business lines are evident for diversified firms than a stand-alone firm.

Considering the above example, managerial reason toward diversification may appear simple. Diversifications seem promising in enhancing efficiency on the internal operational activities. This mirrors to what Besanko, et al (2007) have stated. At least this is true for managers. Managers are attempting to maintain and constantly enhance their position in the hierarchy. This provides a wide avenue toward making diversification decisions. One can easily see that pursuit of growth is prominent in this instance (Mansi and Reeb, 2002).

[16] This includes productive resources and unproductive resources.

By mid 1980's, there were several writings that introduced a new way of looking into an organization from its resources[17]. The idea emerged as the previously known theories suggested that organizations must rely on their resources, both productive and unproductive, in order to maintain continuous growth. Also, all this time, it appears that firm and management practices are bounded by stable environment with minimal change over time (Anantadjaya, 2008). Due to the assumptions of having a stable environment, management ought to formulate consistent strategies. Inconsistencies in strategy formulations may lead to abrupt and drastic change in the firm's operational activities (Anantadjaya, 2008). Nevertheless, recent studies show that researchers have directed their attention more to the role of flexibility as the firm's source of competitive advantage due to the increasingly turbulence business environment. To win competition, speed becomes important. Flexible responses are also crucial to positively affect the firm's performance (Anantadjaya, 2008). For those reasons, resource-based view[18] has claimed its position among the prevailing theories, as a new way of approaching and/or otherwise evaluating the sustainability of organizational competitive advantage (Anantadjaya, 2008).

The perspectives of the resource-based theory indicate that firm's resources directly represent capabilities of the firm, whereby firm takes the stand as its basis for strategies. Hence, firm's resources represent the major contributor for firm's earnings. As to firm's profitability, however, the competence level of internal human capital in managing all resources represents the key ingredient to succeed (Anantadjaya, 2008). Resource-based theory points out that firm's performance is not driven by any characteristics of industry settings, but rather firm's performance portrays the unique firm's resources and capabilities of the firm in making a good use of market opportunities and stay ahead of the competition[19]. This is particularly true since firm's resources are viewed as inputs to the production processes. This is to say that a single resource, though it may be expensive, valuable, and unique, cannot produce firm's competitive advantage by itself. Combination of resources is the key success to achieve the competitive advantage. Another invaluable ingredient is the integration of resources from various business units of a particular firm (Anantadjaya, 2008).

Whenever one refers to firm's resources, it covers all aspects of resources that a particular firm utilizes. This includes the following, but not limited

---

[17] Please refer to the previous notes on "firm's resources", which were initiated by Edith Penrose.

[18] Please refer to the previous notes on "Resource-Based Theory".

[19] Please refer to the previous notes on "market opportunities and staying ahead of the competition".

to; assets, capacity (installed and utilized), skills, competence, firm's business process, firm's systems and procedures, and information management, knowledge (discovery, creation, implementation, and management). Such resources are supposedly owned and controlled by management for effective and efficient use in the production cycles. Firms are said to have sustainable competitive advantage when firms are practicing continuous value-creation strategy despite what competitors are doing at the time being. Such a value-creation strategy should work well in times when competitors are incapable of doing so. To successfully doing this, firms must ensure that all strategic resources are available for use upon which time when the value-creation strategy will be implemented. For sure, value-creation strategy should ensure value-added benefits, unique, rare, relatively difficult to imitate, and relatively difficult to find substitutes. In a way, those value-creation strategies correspond to similar issues as Morrison's second curve[20] in mid-1990's (Anantadjaya, 2008).

III.4.b. The Strategic Management Perspective of Intangible Assets

From the managerial point of view, Kaplan and Norton (2004) propose the use of BSC to support the importance of managerial roles in organizations. The strategic managerial roles can only be shaped if organizations decide to focus on intangible assets, which consist of human capital, informational capital, and organizational capital. Countries[21] that insufficiently invest in people may experience less output per person, and slower growth rates as compared to Singapore and Taiwan, which invest substantially on their people. It is evident that at the macro and micro-economic levels, intangible assets have the ability to push long-term value creation, organizational viability, and thus, organizational growth (Mansi and Reeb, 2002). This is due to the empirical evidence that such intangible assets *describe how the people, technology, and organization climate combine to support the [organizational] strategy* (Kaplan and Norton, 2004).

Value creation from organizational intangible assets is certainly different from any value creation from organizational tangible assets (Kaplan and Norton, 2004). Those differences can be summarized as follows;

1. **Intangible assets create indirect value**
   Intangible assets rarely have direct impact on the organizational

---

[20] Morrison's second curve (Anantadjaya, 2008) attempted to differentiate between the traditional and contemporary ways of doing things within firms. In the unstable economy, there are new conditions, new ideas, new technology, and new consumer that are demanding products and services to be delivered faster than ever, better than ever, and cheaper than ever. Also, the new consumer group demands products and services to be available at anytime and anywhere the consumer want them. Any new products and services are basically demanded with much shorter product life cycles.

[21] This refers to "resource-rich" countries, such as; Indonesia, Saudi Arabia, Venezuela, Nigeria, and the former countries of USSR, where the natural resources are abundance (Kaplan and Norton, 2004).

financial figures, such as; lower costs, higher revenues and profits. This is to say that much of the improvement on the organizational intangible assets affect the financial figures in causal effect. For instance, employees' increase knowledge on quality assurance can influence the quality standard of an organization. This is expected to improve the overall customer satisfaction due to a lower numbers of defective products and/or services. As customers are more satisfied, it is expected that those customers will become loyal by returning and make repeat purchases. This swells the organization’s revenues.

2. **Intangible assets create potential value**
   As one can see from the above explanation, investments in intangible assets represent an unfavorable estimate of its overall impact to the organizational bottom-line. Referring to the above example on an employee additional knowledge on quality assurance, the swollen revenues correspond only to the potentials of the likelihood of additional knowledge. In other words, this is only a potential value to the organizational bottom-line, instead of bringing the real capitalized value at the market rate. Hence, the organizational internal processes[22] must be in-place to ensure that the transformation of the potential value of intangible assets into tangible value can really occur.

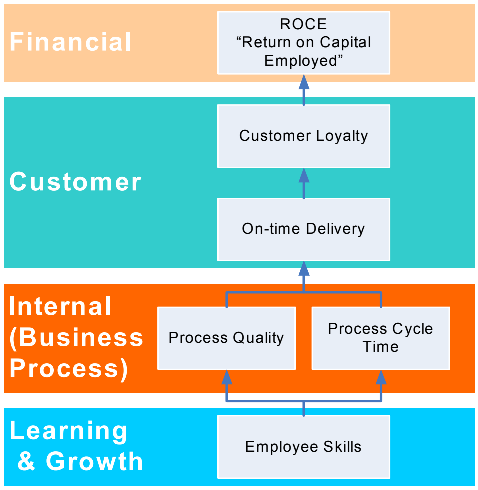
3. **Intangible assets are bundled**
   Again, as one can see from the above explanation, in isolation, intangible assets do not have value. The true value of organizational intangible assets surfaces upon combination with other assets, both with other tangible and intangible assets. The additional knowledge on quality assurance is only helpful if employees have access to timely data and information. In other words, it is often valueless to increase employees’ knowledge on quality assurance if the production processes remain constant. It is also true that the additional knowledge on quality assurance will not have substantial impact on the organizational bottom-line if the data recording in various departments remains unchanged. Hence, minimal impact will likely to occur if the handling of finished goods, and actual delivery of the finished goods remain full of flaws. Looking from the input factor, if the raw materials are defective and the handling of the raw materials is not careful, the extra knowledge on quality assurance cannot deliver significant outputs. The end value of intangible assets occurs only when such intangible assets are properly aligned with the other tangible and intangible assets as well as organizational strategies.

[22] Such internal processes are as follow, but not limited to; order process, negotiation process, approval process, design process, production process, delivery process, customer service process, and many other managerial processes that affect the overall value chain (Anantadjaya, 2007; 2006).

Figure 4 attempts to illustrate the impact of intangible assets on organizational bottom-line using the BSC's four perspectives[23]. This simple illustration is essential to present how organizational strategy can actually link intangible assets to the real market value creation.

The **financial perspective** spells out the organizational tangible results of the strategy in traditional financial terms, such as; return on investment, return on asset, cash flows, profitability, or growth rate. In this illustration, one measurement used is the return on capital employed ("ROCE"). Organizations will sure have difficulties in improving its ROCE unless that organization does have abundance of loyal customers. Those loyal customers are the results of on-time delivery, for instance (Anantadjaya, 2007; 2006).

Figure 4: Impact of Intangible Assets on Organizational Bottom-Line



The **customer perspective** indicates the value propositions for targeted customers. Such value propositions attempt to provide context for the intangible assets. In this illustration, if customers value on-time delivery, for instance, it means that skills, systems, and all pertinent processes that can produce and deliver products and services on-time are highly regarded in the organization (Anantadjaya, 2007; 2006; Kaplan and Norton, 2004). On the other hand, if customers value innovative products, for example, skills, systems, and all relevant processes that can create new products and services are heavily valued in the organization (Kaplan and Norton, 2004). Thus, constant and consistent alignment of organizational actions and capabilities with the customer value proposition denotes the focal point of strategy execution (Kaplan and Norton, 2004).

The **internal process perspective** indicates two importance sub-processes in any organizations – business process, and production process. The illustration provides such distinctions; excellent process quality is done through the organization's business process, and process cycle time is performed in the organization's production process. Referring to the illustration, the on-time delivery depends on the smooth process cycle time,

---

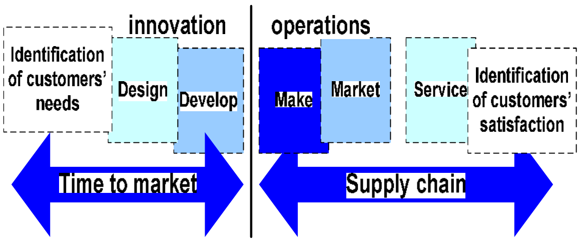
23 BSC consists of four perspectives, which are; financial perspective, customer perspective, internal process perspective, and learning and growth perspective (Kaplan and Norton, 1996; 2004).

combined with the process quality. Indeed, internal business process on process quality and process cycle time will not occur automatically without the skills and competence of employees.

The **learning and growth perspective** defines the importance of intangible assets in achieving the overall value of on-time delivery. Kaplan and Norton (2004) identify that this perspective indicates *which jobs, which systems, and what kind of climate are required to support the value-creating internal processes*. Continuing from the above illustration, employees' skills affect the overall process of learning and growth. As the process of learning and growth becomes successful, the internal business processes are aligned to performance of on-time delivery. As customers are more satisfied, the loyalty level increases. This improves the organizational ROCE (Anantadjaya, 2007; 2006).

Figure 5 also provides supporting validation toward the importance of intangible assets for organizations. In this illustration, the internal process and value creation are separated into two different segments – innovation and operational activities. In the operational activities, for example, it is important to note that the involvement of superb human resources appears to be the key success in carrying out multiple tasks in "make", "market", "service", and "identifying customer satisfaction". It is worth noted that the same argument is true that the quality of human resources is also the key success factor in innovative activities. The illustration really shows the strategic roles of human resources in organization, in terms of idea and product development, as well as design requirements, which are supposed to be adhering to customers' needs and wants. Though the illustration separates the innovation from operational activities, the combined internal processes are definitely creating value to the organizations. Also, the strategic role of personnel in organizations in emphasized (Anantadjaya, 2007; 2006).

Figure 5: The Internal Process & Value Chain Perspective



The illustration shows evidence that the role of human resources in organizations direct the success of innovation and operational activities. An increased level of employees' skills has become the major importance in many economic activities (Dailey, 2006). It appears that the more firms try to enhance the human resources quality, the more successful the firms become. This is simply due to the improvement of existing skills, or attainment of new skills to perform existing tasks better or to perform new tasks. This contributes to superior performance (Baldwin and Johnson, 1997).

IV. Conclusion

The resource-based theory of the firm and the knowledge-based theory of the firm provide a clear path toward the strategic use of intangible assets in organizations. The reading suggests that intangible assets should have become the priority for firms in securing sustainability. Transforming the intangible assets to tangible outcomes represents the significant impact to future development of firms worldwide, including their competitive advantages in the highly flexible and turbulence marketplaces. Intangible assets become the organizational catapult in staying ahead the competition. In particular, the importance of human capital to elevate organization's tangible outcomes is emphasized. When the high quality individuals are readily available, organizations is able to realize their objectives, and run automatically toward efficiency and obtaining the ultimate ROCE.

Bibliography

Anantadjaya, Sam PD (2008), "Comparative Literature Study on The Resource-Based Theory of the Firm and Knowledge-Based Theory of the Firm", *Jurnal Sistem Informasi, vol. 3, no. 1, Maret 2008, Universitas Kristen Maranatha*, Bandung: Indonesia, p. 55-73. ISSN # 1907-1221. Available online at www.ssrn.com.

Anantadjaya, Sam PD (2007), "Financial Aspects of HR Scorecard & Business Process Evaluation: An Empirical Study in Retail & Service Industries", *proceeding, International Management Symposium, Universitas Surabaya*, March 2007, p. 80-98. Available online at www.ssrn.com

Anantadjaya, Sam PD, and Irma M. Nawangwulan (2006), "The Tricky Business of Process Evaluation", *The Jakarta Post*, Management Page, Wednesday, September 6, 2006, p. 19. Available online at www.thejakartapost.com

Baldwin, John R., and Joanne Johnson (1997), "Differences in Strategies and Performance of Different Types of Innovators", *working paper no. 102, Micro-Economic Analysis Division*, Ottawa: Canada. Available online at www.ssrn.com

Besanko, David, David Dranove, and Mark Shanley, Scott Schaefer (2007), *Economics of Strategy*, 4th Edition, John Wiley & Sons, Inc., New York: USA.

Chadturi, S., and B. Tabrizi (1999), "Capturing the Real Value in High-Tech Acquisitions", *Harvard Business Review*, September-October 1999.

Dailey, Anne C. (2006), "Developing Citizens", *Iowa Law Review, vol. 91*, p. 101-172. Available online at www.ssrn.com

Edvinsson, L., dan M. S. Malone (1997), *Intellectual Capital: Realizing Your Company's True Value by Finding its Hidden Brain Powe*r, Harper Business Press, New York: USA.

Foros, Oystein (2003), Strategic Investment with Spillovers, Vertical Integration and Foreclosure in the Broadband Access Market, *International Journal of Industrial Organization*, Vol. 22, p. 1-24.

Kaplan, Robert S., and David P. Norton (1996), *Translating Strategy into Action: The Balanced Scorecard*, Harvard Business School Press, Massachusetts: USA.

Kaplan, Robert S., and David P. Norton (2004), *Strategy Maps: Converting Intangible Assets into Tangible Outcomes*, Harvard Business School Publishing Corporation, Massachusetts: USA.

Mansi, Sattar A., and David M. Reeb (2002), Corporate Diversification: What Gets Discounted?, *The Journal of Finance*, Vol. LVII, no. 5, p. 2167-2183.

Mintzberg, Henry, Bruce Ahlstrand, and Joseph Lampel (1998), *Strategy Safari: A Guided Tour Through The Wilds of Strategic Management*, The Free Press, Simon & Schuster, Inc., New York, USA

Stewart, J. (2005), "Identifying the Sub-Components of Intellectual Capital: A Literature Review and Development of Measure", *Working Paper Series # 2005.05, University of Bath*, Claverton: UK. Available online at www.ssrn.com

Tanaszi, M., and J. Duffi. (2000). *Measuring Knowledge Assets.* CMA, Canada.

------ (2006), "Deals of the Year: Cathay Pacific's HK$8.2 BN Acquisition of DragonAir", *CFO Asia*, December 2006.