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Customer Derived Revenue: A Dynamic Model of Value Creation

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ABSTRACT

This paper proposes that customer capital should be considered in a closer relationship to a company's human capital than is now accepted. Particularly with knowledge companies, the customer has the potential to interact more closely with a firm using the rapidly developing information systems. Communication between customers and the company used to be conducted through the sales staff, but with the technological advances brought about by the IT revolution, loyal customers can directly offer innovative ideas, pose questions and even provide answers to other customer's queries, all which have the potential to produce what is called in this paper—customer derived revenue (CDR). Two knowledge-based companies and one in the manufacturing industry are presented in this paper to lend support for the argument that this new approach to customer capital needs to be adopted to extract more value from a company.

INTRODUCTION

Countless books have been written about how the customer comes first, but the reality is that customer capital is often neglected, put on the sidelines or regarded as totally outside the company culture. The approach to customer relations is still limited to the traditional mode of sales revenue generation. Robert Blattberg a professor at the Kellogg Graduate School of Management states the following in his recent book: "The customer is a financial asset that companies and organizations should measure, manage, and maximize just like any other asset."1 The author has interpreted this and the following excerpt to support the need for CDR to be adopted by knowledge companies. "The market value of a knowledge company as determined by the stock exchanges is calculated by multiplying the stock price by the number of shares of stock outstanding. This simple calculation provides the market's value of the company. Where the market value is greater than the value of the firm's total tangible assets, then the value in excess of this amount may be said to be the premium the market places on two aspects of the firm's intellectual capital: its perception of the amount of intellectual capital held by the firm, as well as its perception of the firm's ability to leverage this intellectual capital in the business marketplace."2 One reason for treating customers as human capital assets within a firm or organization is that it will provide a more accurate market value of that firm. Another, is to create and extract untapped customer tacit knowledge and turn it into explicit knowledge. However, this is only possible if a clear vision and strategy are defined, communicated and implemented by a firm.

The obvious drawback when dealing with tacit knowledge is that it is difficult to measure and current accounting standards prohibit accounting for the vast majority of intangible assets because they are viewed as to abstract and fluid. Current GAAP (Generally Accepted Accounting Principals) essentially rule out practically all intangibles from being recognized as assets.³ The Financial Accounting Standards Board (FASB); however, has not ruled out the recognition of intangibles as assets: "Assets . . . may be intangible, and although not exchangeable they may be usable by the entity in producing or distributing other goods or services.⁴ "Anything that is commonly used to produce goods or services, whether tangible or intangible and whether or not it has a

market price or is otherwise exchangeable, also has future economic benefit."⁵ The focus of this paper is not on accounting, but it is important to note the following trend uncovered by the world's leading researcher on intangible assets, Baruch Lev. Seventy percent of American investments in 1929 were in tangible assets and the other thirty were in intangibles, but by 1990 this figure had inverted. This is not only true in America, but through out the developed world. Jac Fitz-en stated it well in the following:

"Granted the accounting establishment has not yet accepted human capital accounting. This is not surprising, since dramatic changes and new methods seldom come from within the establishment. None of the mainframe computer makers came up with the personal computer. None of the airlines or railroads originated next-day delivery of small packages. This is because institutions concentrate most of their energy on fighting a rearguard action to protect their assets."⁶

Investments in intangibles continue to rise; therefore, the debate on how to account for intangibles will grow and most likely force changes in the present accounting standards from external pressure.

VALUE CREATION AND VALUE EXTRACTION MODELS

The essence of Hubert Saint-Onge and Leif Edvinsson's value creation models and Patrick Sullivan's approach to value extraction have influenced the model presented in this paper. Saint-Onge and Edvinsson divided intellectual capital into three parts: Human Capital, Structural Capital, and Customer Capital.⁷ Edvinsson however added the concept of "renewal & development focus." They are essential for capturing opportunities that will define the company's future. His model also includes "financial focus" which refers to financial statements, annual reports and other related areas to the finance in a company. These two additions provide the addition of time: financial focus covers the past whereas renewal and development includes the future.

Hubert Saint-Onge defines Human Capital as: The capabilities of the individuals required to provide solutions to customers. Customer Capital: The depth (penetration), width (coverage), attachment (loyalty) and profitability of customers. Structural Capital: The capabilities of the organization to meet market needs.

Sullivan introduced his "Strategy Development Spectrum" running from: Mission, Vision, Objectives, Goals, Issues, Alternatives, Decision to Action Plans. He then divided them into two groups "Strategic Thinking and "Strategic Planning" to show their value on a time scale. "A strategic vision is a set of operationally meaningful statements describing the organization as it wishes to be in the future. It is more specific than a mission statement, which set forth objectives in broad business terms."⁸ He goes on to state:

This vision (as well as the firm's strategy for achieving it) may be used as the basis for measuring the utility or value of intangibles such as intellectual capital. If an intellectual asset such as an idea, a patent, or a process can assist the company in implementing its strategy or achieving its vision, then it has value to the firm. The amount of value depends on the degree to which the intellectual asset enables the strategy or vision.⁹ The author considered Saint-Onge's definition of Human Capital and Edvinsson's "renewal and development" and applied them to include customers more closely linked to the company architecture to derive revenue if a vision and strategy as outlined by Sullivan is implemented. This application of CDR is presented in Figure 1. It has been plugged into Junji Matsuda's model of a "Dynamic Mechanism of Value Creation"¹⁰ and illustrates how the proposed new approach to Saint-Onge, Edvinsson models and Sullivan's strategic vision assimilates the customer into a firm's human capital to produce future revenue.

Human capital is significant because it is the source of innovation and renewal. Customer capital is the value of an organization's relationships with the people with whom it does business. Whether the relationship is upstream or downstream, its economics and dynamics are the same. It is here, in the relationships with customers, that intellectual capital turns into money.¹¹

This paper presents the argument that customer capital is not only reserved for a downstream value-added component, but it is also a component that feeds into a company's upstream flow and contributes to innovation and revenue creation for a company. Customers have gained the power of knowledge from an ever-disclosing world driven by IT. Therefore, companies must reject the old school of thought of maintaining secrets for the new generation of sharing.

When an airline chooses between General Electric, Pratt&Whitney, and Rolls Royce for engines to power a new plane, its decision is based on the quality of its relationship with each company as well as price and technical specifications. The better that relationship, the more likely the buyer is to share its plans and expertise with the seller—that is, the more likely a company can learn with and from its customers and its suppliers. Shared knowledge is the ultimate form of customer capital.¹²

In the beginning many wrote that Knowledge Management was a passing phase, but that was more than a decade ago and what we see is that KM has created a new paradigm that is evolving and is in need of appropriate strategies to increase a firm's value. The CDR model seeks to expand the traditional approach of the sales representative bringing back innovative ideas derived from customers into a comprehensive knowledge acquisition and sharing. "Customer needs are rarely articulated. In fact, they may not be able to be articulated at all, and so the only effective way to understand future needs is for customers to participate in the innovation process."¹³

Celemi International, a Swedish consulting firm, named the three areas listed in the box above in a 1995 company report. When the author's innovation-driven-enhancing is included it creates the CDR mechanism. A customer can and often does add to more than one of these categories. Definition of the terms and examples are as follows: Competence-enhancing customers are those who bring projects challenging the competence of a company's employees. These customers are valuable because a company's employees learn from them. Image-

Figure 1



* Celemi International¹⁴

* CDR=cause and Customer Derived Capital=effect

enhancing comes from famous customers who speak well about the company or products it produces. Organization enhancing comes from customers whose demands force a company to become more efficient or acquire new tangible or intangible assets.

The alliance between Aluminum maker Alcoa and Audi Car Company that began in 1985 is a good example of how a relationship can take on the role as a competence-enhancing, image-enhancing and organization-enhancing customer. Alcoa was looking to increase sales because its market had flattened out, so it targeted the huge car industry. At about the same time Audi was looking for new ways to expand its market in Europe. Two factors drew Audi to look to Alcoa: the European car market is heavily influenced by engineering prestige and German law requires that cars be recycled. An all-aluminum car has both the sleek image and the marketing advantage in Europe of an environmentally friendly car. The problem was how to make a car from aluminum. It took Audi and Alcoa engineers nine years to roll out the first production model of an all-aluminum car. Audi's demands forced Alcoa to find ways to produce aluminum that would be suitable enough to handle the wear and tear produced by the engine and the load to other parts. The following is from Alcoa's press release on how customer-enhancement has led to improved company performance:

The Company continues to examine all aspects of its operations and activities and redesign them where necessary to enhance effectiveness and achieve cost reductions. . . This is being done through aggressive implementation of the Alcoa Business System (ABS), an integrated set of systems and tools organized to provide a common language and unencumbered transfer of knowledge across businesses and geographies. ABS is the management system Alcoa set out to implement worldwide four years ago. The basic ABS Principles are: (1) making only what the customer wants, when the customer wants it; (2) eliminating as waste anything not wanted by the customer; and (3) recognizing that people are critical to the success of ABS.¹⁵

The concept behind innovation-driven-enhancing is the ability of a company to acquire customers' inspirational feedback that in turn produces intangible assets upstream that translates into increased profits downstream. One example of this type of inspirational feedback comes from Lotus Notes technical support database. Hundreds of companies can obtain direct access to the database where they can get help not only from Lotus, but also from each other. Lotus can capture a large number of new ideas, improve their service and save money by providing on-line solutions at virtually no cost to the company.

Cisco was faced with a bottleneck dealing with customer after-sales inquiries after releasing a new software package.

The answer turned out to be the Web. Cisco decided to put as much of its support as possible online so that customers would be able to resolve most workaday problems on their own, leaving the engineers free to do the heavy lifting. It was almost instant success, becoming in Mrs. Bostrom's [head of Cisco's Internet Solutions Group] words, a "self-inflating balloon of knowledge." Cisco's customers did not just go to the website to get information, they started using it to share their own experiences with both Cisco itself and other customers.¹⁶

The previous examples illustrate the distinct difference between innovation-driven- enhancing and the other enhancers in that; the new ideas from customers create new products or services from within the customer network. Loyal customers are not merely pushing employees to new heights, adding brand value or forcing organizational changes, they become an unpaid, but potential profit creating part of the entire company. The motivation for loyal customers is improved products, improved service and if the customer is a shareholder, improved market value for their holdings.

VISION AND STRATEGY

Sullivan's "Strategy Development Spectrum" was introduced earlier as a way to develop an overall strategy for all intellectual assets, but focusing on CDR we need to look at it from a customer policy deployment view, which is similar in some respects, but involves some more

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specific areas. "Customer policy deployment, in particular, aims to move the entire organization to focus more on customers in order to increase their satisfaction and loyalty. The policy includes four major steps: Mission and Vision, Goals, Communication Strategy and Priority Setting and Implementation."17 Mission and vision state the firm's philosophy; goals are the short and medium-term direct in line with the vision; communication strategy is conveying the vision and goal company wide; priority setting and implementation aligns the incentives and priorities of the company to match the vision and goals and to implement quality improvement projects. The author adds a fifth "Culture Strategy" which involves internal culture building and external culture understanding that incorporates an international viewpoint. The World Wide Web is just that and requires knowledge and understanding to elicit the highest potential output from the CDR model. It is true that the largest number of web users come from English proficient countries, but Japan, China and South Korea are rapidly growing Internet markets with not only language differences, but also with cultural differences from western countries. In order to meet the diverse cultures not only in Asia, but also in other developed and developing areas, the addition of culture strategy in customer policy deployment will play a significant role in capturing the highest level of CDR possible. Within a firm's strategy: customer and supplier ideas, screening processes, feasibility, development and finally commercialization are main components that need serious consideration.

CONCLUSION

Clearly, innovation is not unique to the current economic environment, but what is unique to the modern corporation is the urgency to innovate. Given the decreasing economies of scale (efficiency gains) from production, coupled with the ever-increasing competitive pressures, innovation has become a matter of corporate survival.¹⁸ Companies must find a way to capitalize on their customer knowledge and more accurately account for it for their stockholders and other interested parties. In order to accomplish this, the author argues that companies must provide a knowledge channel so that the latent external human capital can readily contribute to the internal human capital. "In some industries, 80 percent of all innovations originate from customers rather than producers."19 "What is now required is a business process focused on innovation rather than a business structure focused on R&D, technology development, and product/service development."20 Implementing the CDR model will be one way to meet the paradigm shift towards innovation we are now experiencing.

The argument in this paper is still theoretical and lacks quantified data to prove that the inclusion of CDR adds profitability; however, case studies will be undertaken in the future to illustrate how CDR is a vital component for creating and extracting greater value through innovation.

ENDNOTES

- 1. Blattberg, Thomas, Getz Gary and Thomas Jacquelyn. 2001. Customer Equity. Harvard University Press. p. 3
- Sullivan, Patrick. 1998 Profiting from Intellectual Capital. John Wiley& Sons. p. 38
- Aboody, David, and Baruch Lev. 1998. "The Value Relevance of Intangibles: The Case of Software Capitalization." *Journal of Accounting Research* (supplement) 36:161-91.

- 4. Financial Accounting Standards Board. 1985b. para. 26
- 5. Ibid. para 173
- 6. Fitz-enz, Jac. 2000. The ROI of Human Capital: measuring the economic value of employee performance. AMACOM. p.117
- 7. Saint-Onge, Hubert and Edvinsson, Leif. 1995. "Intellectual Capital as a Business Reality," presentation, October 3.
- Sullivan, Patrick. 1998 Profiting from Intellectual Capital. John Wiley& Sons. p. 31
- 9. Ibid. p. 33
- Stewart, Thomas. 1997. Intellectual Capital The Wealth of Organizations. Doubleday. p. 77
- 11. Ibid. p. 78
- Matsuda, Junji. 2001. "A Dynamic Mechanism A Dynamic Mechanism of Value Creation: A Model for Intangible Assets," IRMA (International Resource Management Association). p. 261-62
- Miller, Morris and Morris, Langdon. 1999. Fourth Generation R&D: Managing knowledge, Technology, and Innovation. p. 10
- 14. Celemi International. 1995 Annual Report
- 15. Alcoa. 2001 Annual Company Report
- 16. The Economist. 1999. June 26 article p. 12.
- 17. Johnson, Michael. 2000. Improving Customer Satisfaction, Loyalty, and Profit. Jossey-Bass Inc. p. 25
- 18. Lev, Baruch. 2001 Intangibles Management, Measurement, and Reporting. Brookings Institution Press. p. 14
- von Hippel, Eric. 1998 The Sources of Innovation. Oxford University Press.
- Miller, Morris and Morris, Langdon. 1999. Fourth Generation R&D: Managing knowledge, Technology, and Innovation. p. 24

REFERENCES

Aboody, David, and Baruch Lev. 1998. "The Value Relevance of Intangibles: The Case of Software Capitalization." *Journal of Accounting Research* (supplement)

Alcoa. 2001 Annual Company Report

Blattberg, Thomas, Getz Gary and Thomas Jacquelyn. 2001. Customer Equity. Harvard University Press.

- Celemi International. 1995. Annual Report
- The Economist. 1999.
- Financial Accounting Standards Board. 1985b.
- Ibid.

Fitz-enz, Jac. 2000. The ROI of Human Capital: measuring the economic value of employee performance. AMACOM.

Johnson, Michael. 2000. Improving Customer Satisfaction, Loyalty, and Profit. Jossey-Bass Inc.

Lev, Baruch. 2001 Intangibles Management, Measurement, and Reporting. Brookings Institution Press.

Matsuda, Junji. 2001. "A Dynamic Mechanism A Dynamic Mechanism of Value Creation: A Model for Intangible Assets," IRMA (International Resource Management Association). p. 261-62

Miller, Morris and Morris, Langdon. 1999. Fourth Generation R&D: Managing knowledge, Technology, and Innovation.

Saint-Onge, Hubert and Edvinsson, Leif. 1995. "Intellectual Capital as a Business Reality,"

Stewart, Thomas. 1997. Intellectual Capital The Wealth of Organizations. Doubleday.

Sullivan, Patrick. 1998 Profiting from Intellectual Capital. John Wiley& Sons.

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