

## **Managing Value Chain Strategy**

Peter H. Antoniou  
California State University San Marcos

Catherine E. Levitt  
California State University at Los Angeles

Cynthia Schreihans  
California State University San Bernardino

### **ABSTRACT**

The urgency and immediacy of the current financial crisis that burst into American consciousness in the 4<sup>th</sup> quarter of 2008 has left companies around the world gasping for air. This situation presents a need to review the meaning of sustainability in an increasingly turbulent environment. Therefore, this article presents a review of the meaning of sustainability in an increasingly turbulent environments, and it seeks to present a working model for evaluating the impact of autonomous and non-autonomous elements of the value chain as they relate to, outsourcing in accordance to corporate strategy. While there is much discussion, both academic and practical, about the strategic advantage sought through outsourcing and, equal discussion about the process of making the decision to outsource, little has been done to examine how best to use the outsourcing value chain. Successful and poor outcomes of outsourced processes have been reported. To date however, no model has been developed to improve the possibility of surviving an economic crisis and replicating success with outsourcing. Both small and medium sized enterprises that are engaged in outsourcing seek better utilization and better management of the components of the value chain during turbulent economic conditions. Benefits from the utilization of the presented model and the information contained in this document will better assist in associated process development.

Keywords: Value Chain Model, Outsourcing, Financial Crisis, Corporate Sustainability

## CONCEPT INTRODUCTION

The urgency and immediacy of the current financial crisis that burst into American consciousness in the 4<sup>th</sup> quarter of 2008 has left companies around the world gasping for air. The question of strategic success for large and small firms has shifted from one based on profit growth to one of survival. This presents a need to review the meaning of sustainability in an increasingly turbulent environment. This paper seeks to present a working model for evaluating the impact of autonomous and non-autonomous elements of the value chain on the corporate strategy of small and medium sized enterprises engaged in outsourcing. The model leans toward better utilization and better management of the components of the value chain under turbulent economic conditions. This model derives its theoretical basis in the juxtaposition of the literature that supports Value Chain dynamics with that which finds value chain lacking essential measurable standards

While there is much discussion, both academic and practical, about the strategic advantage sought through outsourcing and, equal discussion about the process of making the decision to outsource, little has been done to examine how best to manage the outsourced value chain. Both successful and poor outcomes of these outsourced processes have been reported, but no model has been developed to improve the possibility of surviving the crisis and replicating success. This paper and model seeks to fill these voids.

With this model, the channels of information, communication, authority and factors resource which structure of the value chain are examined. The differences in flows through each component may be evaluated so that the relationships between components (and between the components and the enterprise) are more clearly seen. The balance between competition and collaboration within the chain is calibrated for external turbulence and internal aggressiveness producing affects, which then are aligned with the strategic position of the enterprise. With this alignment, the fragmentation of the applications of strategy is reduced, relationships between components become more transparent and the possibility of replicating or innovating successful practice is increased, even in the throes of this current crisis. Use of this model in the strategic process should enable the small or medium-sized enterprise to answer the following questions:

- Are the participants in the value chain part of our strategy design and application?
- Are we participants in their value chain?
- Are we treating the value chain participants as SBU's or SBA's?
- Do our value chain participants affect our encounter with the external environment?
- How do we affect theirs?
- Does participating in this value chain change our organizational structure and decision making?
- How should the value chain be managed and by whom?
- Are we responsible for the value chain or dependent on it?

## VALUE CHAIN

The value chain is a systematic approach to examining the development of competitive advantage and was created by M. E. Porter in his books on Competitive Advantage (1980 and 1985). The chain consists of a series of activities that create and build value. They culminate in the total value delivered by an organization. The 'margin' depicted in the diagram as indicated in

Table 1 (Appendix A) is the same as value added. The organization is split into 'primary activities' and 'support activities'. Essentially, this was a way of examining the value added by both direct and indirect departments or by both cost and profit centers.

Current texts for Strategic Management explain that 20 years after the conception of value chain analysis, US firms faced increased competition at all levels (Fred R. David; Dess, Lumpkin and Eisner, Hill and Jones, Hitt and Ireland, Peng, Thompson and Strickland). While in the 80's, no two companies were at the same level of competition. Where the original motive of firms was increased production, by the change of millennium, the main motive had become customer service. Products were increasingly differentiated closer and closer to customer. The original reactive approach of industries was replaced by an active/proactive approach. These approaches are depicted in the diagram as indicated in Table 2 (Appendix B): Expansion of the Relevant Environment.

Customers, also, evolved during these 20 plus years. Where customers had had relatively little market power and limited interest in product specifications, by the beginning of the 21st century, customers had become increasingly sophisticated, increasingly interested in specifications, and more powerful. This expanded understanding of companies and markets through value chain analysis led to the increasing use of outsourcing in both the primary and support and primary activities. All of this was intended to increase value for the increasingly important and powerful customer while decreasing the costs to the organization. By 1999 Charles Leadbetter's, 'Living on Thin Air' suggests that ideas rather than products were the sole and central generation of value. At the same time, there was an increasing assumption that products needed to be inexpensive to be valuable, but that idea generation (Human Capital). (Peng, 2009, Hitt and Ireland, 2009, and Thompson and Strickland, 2010).

"A recent survey of the main usages inputs...labor, entrepreneurship and knowledge) should be highly rewarded." Possible as long as development funding was readily available through a combination of debt and equity financing. The relative ease of attracting financing and the rewards for outsourcing again changed the weight that value chain analysis held and the way it was done ( McNair., Polutnik and Silvi 2001; Sanjiv (2002).

By 2005, Strategic Management texts were carrying a caveat that value chain analysis was useful and accurate when applied to production based organization but less accurate and less than effective in examining service producers and idea generating firms. The current financial crisis and the failure of firms to recognize its advent, demands that a new look be taken at the generation of value. Value chain analysis and evaluation offers a starting point of the term "value" in economics, marketing, strategy and operations fields indicates that the notion of value chain may be a misnomer, although a widely used one. According to this analysis, only resources move along the chain of linkages between firms—supplies going one way and money going the other.....Therefore, value chains can be thought to operate in both directions, with suppliers accruing value from financial resources, payment terms, stability and future order cover that their customers provide, while customers derive value from delivered products and services." (Presutti and Mawhinney, (2003). In other words, the traditional value chain tends to be seen as a synchronization of a demand chain with the supply chain, leaving unaddressed the metaphysical sense of "value" associated with benefits that occur at various exchange points.

- Changes in the channels and flows of: Information, Authority/Power, Communication, Resources (especially capital) have forced changes throughout the Value Chain matrix since these have changed the exchange points:

- Information channels and flows have changed in terms of availability, access, openness and transparency.
- Authority/Power channels and flows have changed in terms of decision and control as well as input and output autonomy.
- Communication channels and flows have changed with the link of internal and external networks, and the virtualization of production.
- Human and Financial Capital channels and flows have changed in both in sources and uses.

It has long been recognized that Value Chain management requires rigorous management of the outcomes with awareness of inputs, rigorous management of the channels and flows, and rigorous management of the relationships: internal components/partner/customer. What has not been examined is the responsibility/dependency/independence within and among the value chain participants (Champion, 2000).

Traditionally, Value Chain participants have been evaluated on the following criteria: Pricing, Capital Intensity, Talent Leverage, Structural Fit, Workflow and Specialization, Customer Acquisition. All depicted in the diagram as indicated in Table 3 (Appendix C): Evaluating Value Chain Components. It is important to note that these criteria all address functional level activities with accepted measurement dimensions that provide for the appearance of objectivity (Porter, 1985).

What has not been evaluated is Capital Sourcing, Talent Sourcing, Dependency on the Value Chain, and Impact of External Economic Changes. It is important to note, that these criteria; (1) do not lend themselves to objective measurement and (2) are not within, but among participants in the value chain (Taninecz, 2000).

These criteria fall in the gray area of decision-making and governance which addresses the commonality of the perception and communication of value between and among participants in the value chain. Value, thus, surrounds the movement of resources through the transaction process. The Value Chain and Evaluation Models suggested in this paper intend to provide a more comprehensive assessment of components and participants within the chain. It also address the perceived value that surrounds the synchronized movements of resources and which should accrue to all parties in the transaction (Webb and Gile (2001; Adewole, 2008, unpublished ).

The model is an extrapolation of the primary and support activities of any organization. It is based on the work cited in any of the basic strategic management texts (Hitt and Ireland, 2009, Thompson and Strickland, 2009). The contribution is in the addition of the shaded area in the primary activity: Service. In this the attention is directed towards the activities needed to ensure that the level of contribution of the SBU is commensurate to the contribution needed to be a significant part of the value chain. If there is not value added then the contribution is minimal and the SBU is basically removed from the Value Chain.

The concept is that there has to be a part which not only assesses what is needed, but also ensures that it is worth the value added in the whole process. The services component is the one which makes the contribution to be both efficient as well as effective and in addition monitors the delivery of the value contributed. It is the mitigating factor which makes the value come true.

There is no other model dealing with the value chain contribution as part of the activities. This is original work of the authors of this paper. The intention is to better illustrate how the activities

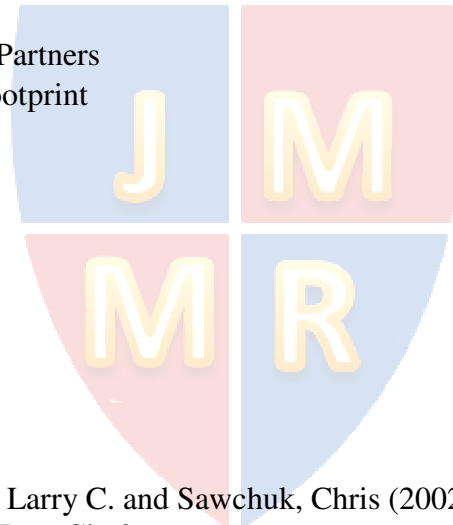
in an organization come together to create value.

The new model is depicted in Table 4 (Appendix D): New Model. The attributes on the vertical line illustrate the areas directly affecting the successful functionality of the value chain. The attributes on the horizontal line are the ones needed to assess the strength of the value chain processes. They facilitate a high degree of operation/functionality of the value chain.

From this Model, these authors developed the rubric as depicted in Table 5 (Appendix E). The rubric allows the assessment on each of the areas on the vertical axis as to the degree as to how they are fulfilled on the ones on the horizontal ones.

Use of the rubric for Evaluation of the Value Chain Based on this new Model should allow companies and strategic analysts to:

- Mitigate Risk
- Leverage Vision
- Allow for the Embrace of Complexity
- Create Commitment
- Facilitate Articulation
- Change Customers to Partners
- Increase the Global Footprint



## REFERENCES

### RELATED BOOKS

- Antonette, Gerald, Giunipero, Larry C. and Sawchuk, Chris (2002). *E-Purchasing Plus*. New York: JGC Enterprises, Inc. Ch. 9
- Bovet, David and Martha, Joseph (2000). **Value Nets**. New York: John Wiley and Sons. Chapter 1
- Hughes, Jon, Ralf, Mark, and Michels, Bill (1999). *Transform Your Supply Chain*. London: International Thomson Business Press. Ch. 1-3
- Plenert, Gerhard (2001). *Value Chain Management in an E-Commerce World*. Los Angeles, CA: Blackhall Publishing. Chapter 3
- Porter, Michael E. (1985). *Competitive Advantage*. New York. The Free Press (Chapter in which Porter introduces the generic value chain concept).

### Articles:

- Andrews, Philip and Hahn, Jerome (1998). "Transforming Supply Chains into Value Webs" in *Strategy and Leadership*, The Strategic Leadership Forum.
- Champion, David (2000). "Mastering the Value Chain." *Harvard Business Review*, Volume 79, Issue 6.

McNair, C. J., Polutnik, Lidija, and Silvi, Riccardo (2001). "Cost Management and Value Creation: The Missing Link." *The European Accounting Review*, 10: 1.

Sanjiv, Sidhu (2002). "From Supply Chain to Value Chain." *Purchasing*, July 18.

Taninecz, George (2000). "Forging the Value Chain: Executives Identify Best Practices and Barriers in Value Chain Initiatives." *Industry Week*, May 15.

Webb, Jim and Gile, Charles (2001). "Reversing the Value Chain." *The Journal of Business Strategy*, April/May.

### **TECHNOLOGY ARTICLES**

Anderson, Gordon (2000). "From Supply Chain to Collaborative Commerce Networks." *Achieving Supply Chain Excellence Through Technology*. San Francisco, CA: Montgomery Research Inc.

Anderson, David and Lee, Han L. (2000). "The Internet-enabled Supply Chain: From the First Click to the Last Mile." *Achieving Supply Chain Excellence Through Technology*. San Francisco, CA: Montgomery Research Inc.

Culotta, Ted (2000). "The Promise of Value Chain Optimization." *Achieving Supply Chain Excellence Through Technology*. San Francisco, CA: Montgomery Research Inc.

Lewis, William J. (2000). "Forging the Value Chain (Using Data Warehouses)." *Intelligent Enterprise*, January 20.

Rayport, Jeffrey F. and Sviokla, John J. (1996). "Exploiting the Virtual Value Chain." *The McKinsey Quarterly*, No. 1.

Presutti, William D. Jr. (2003). "Supply Management and E-Procurement: Creating Value-Added in the Supply Chain." *Industrial Marketing Management*, April 2003.

### **PERFORMANCE ARTICLES**

Adewole, A (2008) Standards of Rigor for Qualitative Research in Management: Implications from a study in Supply Chain Management (unpublished )

Adewole, A (2008) The Application of Qualitative Methods for Researching Supply Chain Management; *International Journal of Quality and Standards* (Paper being review)

Adewole, A (2008) Delivering Value through Efficient and Effective Supply Chain Management, Seminar Paper, April 2008, Presentation to the Nigerian Institute of Management, London Branch

Adewole, A (2005) Developing a Strategic Framework for Efficient and Effective Optimisation of Information in the Supply Chains of the UK Clothing Manufacture Industry, *Supply Chain Management: An International Journal*, pp357 - 366, Vol. 10 No 5, UK

Adewole, A (2004) Information Sharing and Supply Chain Relationships in Small and Medium Sized Garment Manufacturing Firms in the UK, Doctoral Thesis University of the Arts, London/Open University (Joint Award)

Adewole, A (2005) Integrated Supply Chains for the UK Clothing Industry, Seminar Paper, Marketing and Purchasing Group Research Symposium, London Metropolitan University, UK

Ellram, Lisa M. and Liu, Baohong (2002). "The Financial Impact of Supply Management." *Supply Chain Management Review*, Nov./Dec.

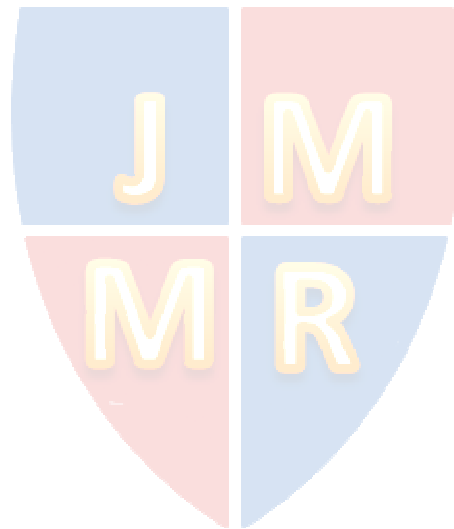
Timme, Stephen G. and Timme, Christine (2001). "The Financial-SCM Connection."

### **SUPPLY CHAIN REVIEW**

Prober, L. M.(2000). "EVA: A Better Financial Reporting Tool." Pa. CPA Journal, Fall.

Presutti, William D., Jr. and Mawhinney, John (2003). "Supply Chain Management's Impact on Corporate Performance." Proceedings of the 14<sup>th</sup> Annual North American Research Symposium on Purchasing and Supply Management, Tempe, Az., March 20-23.

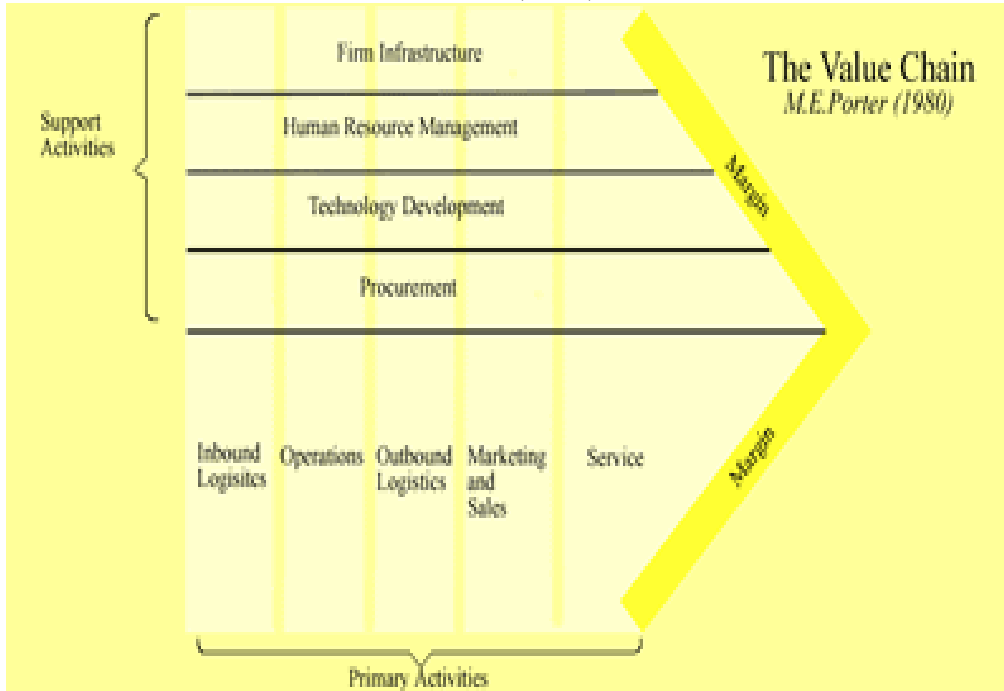
Roberts, Julie S. (2002). "The Supply Chain of Dollars and Cents." Inside Supply Management, June.





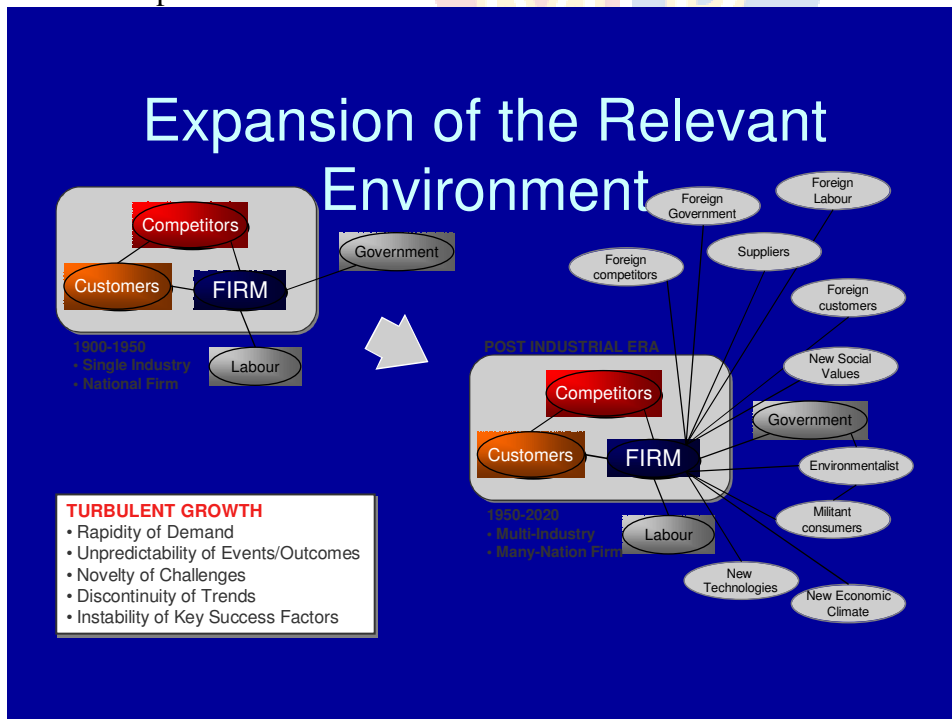
## APPENDIX A

Table 1: The Value Chain, M.E. Porter (1980)



## APPENDIX B

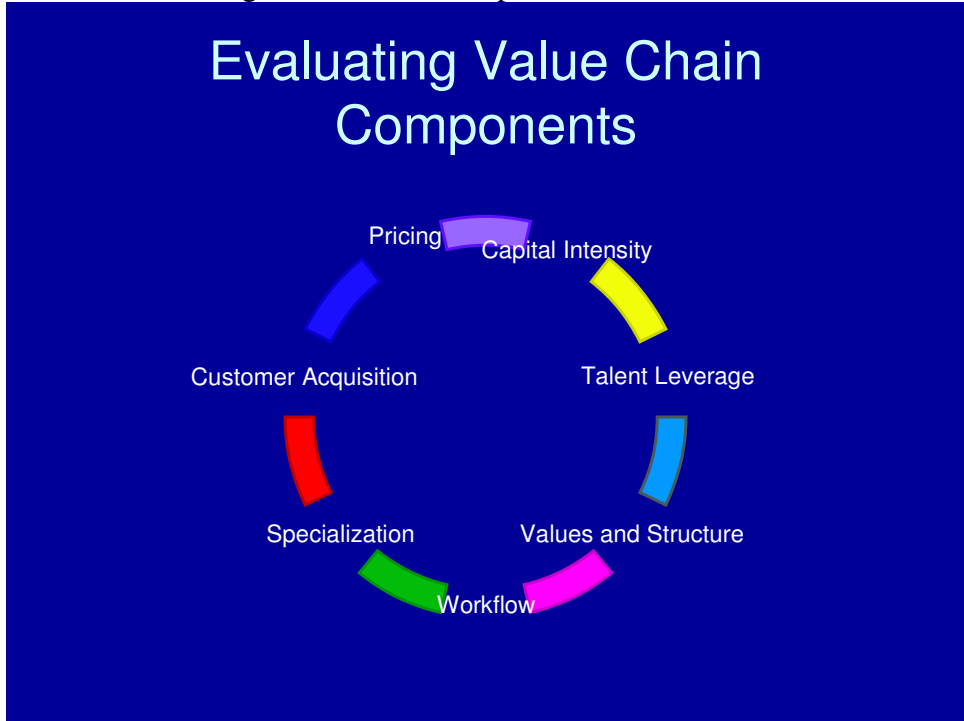
Table 2: Expansion of the Relevant Environment.





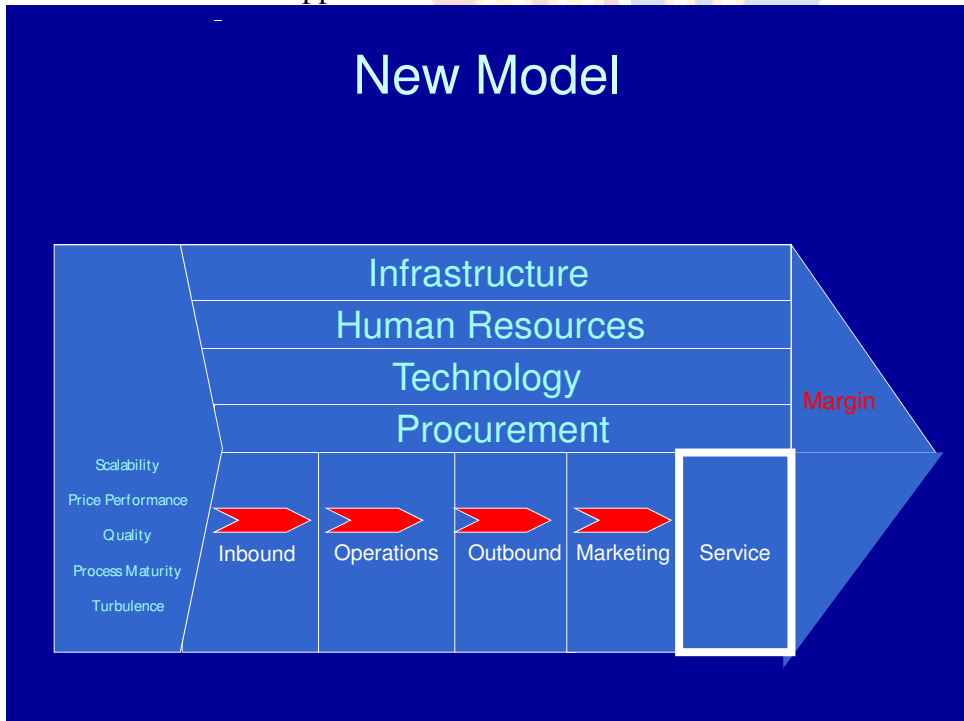
**APPENDIX C**

Table 3: Evaluating Value Chain Components



**APPENDIX D**

Table 4: New Model Approach



## APPENDIX E

Table 5: Rubric Analysis

	Information	Communication	Capital	Power	Dependency
Scalability					
Price Performance					
Quality					
Process Maturity					
Turbulence					

### Vertical attributes -

- **Scalability:** It is the flexibility in increasing or decreasing the use of resources in a relatively short period of time (3 months). In addition, it may also imply flexibility in changing the directionality of the flows.
- **Price Performance:** It represents the weight price has in the value chain.
- **Quality:** It is the pressure of quality as it affects the value chain as a whole.
- **Process Maturity:** It is the level of entrenchment of current practice in each of the flows to, from and within the value chain component.

**Turbulence:** It the magnitude and velocity of external changes and the significant impact they have on the various flows.

**Horizontal attributes -** Necessary to facilitate a high degree of operation of the value chain.

- **Information:** The type and amount of information needed.
- **Communication:** The degree of communication; types, strength and depth.
- **Capital:** The amount needed and dependency of capital on the value chain.
- **Power:** Degree of power exerted by any one of the players of the value chain.
- **Dependency:** Of players on the value chain.

## APPENDIX F.

Table 6: Rubric Analysis - Example

	Information	Communication	Capital	Power	Dependency
Scalability	3	2	4	4	1
Price Performance	2	3	2	2	1
Quality	2	2	3	2	1

Process Maturity	3	2	5	4	2
Turbulence	1	2-3	1	2	3

The completed rubric above analyzes the Major Subcontracts component of Procurement in an U.S. automotive electronics manufacturer during 2010.

Ranking Scale is from high to low with 1 being high and 5 being low.

**Scalability** is considered high if there is great flexibility in increasing or decreasing the flows of information, communication, capital, power or dependency.

**Price Performance** is ranked on each of the flows as it contributes to the possibility of placing a dollar value on that flow within that participating component of the value chain.

**Quality** is ranked on each of the flows based on the contribution of each flow to the non-monetary assets of the value chain.

**Process Maturity** is ranked on the level of entrenchment of current practice is in each of the flows to, from and within the value chain component.

**Turbulence** is considered high if the number, magnitude and velocity of external change has significant impact on the various flows. It would be considered low if the flow is insulated against external changes or if there are a small number if minor changes occurring at an expected rate.

