

# PORTER'S FIVE FORCES MODEL; SCOTT MORTON'S FIVE FORCES MODEL; BAKOS & TREACY MODEL ANALYZES [STRATEGIC INFORMATION SYSTEMS MANAGEMENT]

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**ABSTRACT:** Wollongong City Council (WCC) is one of the most progressive and innovative local government organizations in Australia. Wollongong City Council use Information Technology to gain the competitive advantage and to face a global economy in the future. Porter's Five Force model is one of the models that can be using at Wollongong City Council because porter's five Forces model has strength in relationship between buyer and suppliers (Bargaining power of suppliers and bargaining power of buyers). Other model such as Scott Morton's Five Forces model has strength to analyze the social impact factor, so to gain competitive advantage in the future and have a good IT/IS strategic planning; this model can be use also. Bakos & Treacy model almost the same as Porter's model but Bakos & Treacy model can also be applying into Wollongong City Council to improve the capability in Transforming organization, efficiency, and effectiveness.

**Keywords:** porter's five forces model, scott morton's five forces model, bakos, treacy model analyzes.

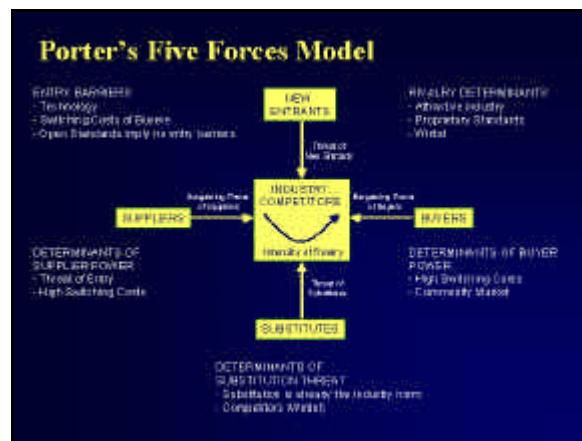
## 1. INTRODUCTION

Organizations compete for customers, for access to raw materials, for access to new markets, for the right to develop new products. Not-for-profit organizations compete for donations and grants; political parties compete for votes; government agencies compete for funding from general fund budgets. Competition is a part of everyday existence for most of organizations, and, when viewed from a longer-term perspective, it is a fact of life for all organizations. Within this competitive environment, many organizations have successfully used IT (Information Technology) to help them compete (Thomson, 1997, p.327).

WCC (Wollongong City Council) is one of government organization, which is using IT (Information Technology) to gain a competitive advantage in the future. WCC has a vision "To be a community focused local authority of excellence" and mission "To enhance our community's lifestyle and environment through effective leadership, community involvement and commitment to service". (WCC case notes, 2003, p.1) The mission of WCC IT Department is "Provide reliable

information, data, and computing services to all customers" (WCC case notes, 2003, p.5).

The purpose of this report is to analyze WCC (Wollongong City Council) using Porter's Five Forces Model to gain a competitive advantage. Some alternative model will be given to this report, some conclusion, and some recommendation for WCC (Wollongong City Council) to increase the profitable. The Porter's Five Forces Model includes Bargaining power of suppliers, bargaining power of buyers, threat of new entrants, and threat of substitutes.



## 2. METHODS, ANALYZE AND IMPLEMENTATION

### 2.1 Bargaining Power of Buyer

Customer forces or buyer is generated by a well informed buyer, a price sensitive buyer, and similar product or service alternatives. (Dawkins, Cummings & Haag, 1998, p.308). WCC (Wollongong City council) has a buyer from community or resident from Wollongong. Customer satisfaction is one of the principles that WCC focus. WCC try to improve the quality in service. Community has to support also the WCC strategic planning with giving the opinion about the negative and positive impact of service to WCC (Wollongong City Council).

Buyers (Community of Wollongong) also will apply some suggestions for business implication such as the flexibility service, demand in higher quality, and encourage the competition. For instance, WCC (Wollongong City Council) has some service to community such as infrastructure (Public building, engineering structure), City planning and development (quality of environment) and some important aspect to be examined.

WCC (Wollongong City Council) from the IT (Information Technology) perspective has some facilities to improve the performance, give the community (buyers) to make a selection into some products, and increase switching costs of community (buyers).

WCC (Wollongong City Council) provide cost effective support services to the organization that will provide the performance indicators. WCC make a survey to the buyer to know about the satisfaction of community. For instance, Library systems in WCC (Wollongong City Council) give the community to have some information that is very significant with the service of WCC, especially for Wollongong community. A library system is using the database system that is giving some crucial information such as environment. Another example, WCC give much information about other library such as Warrawong library.

### 2.2 Bargaining Power of Suppliers

A strong supplier force is generated by suppliers with necessary, unique products/services and a concentrated supplier market. (Dawkins, Cummings & Haag, 1998,p.308). WCC (Wollongong City Council) is a strong supplier to community especially in Wollongong. WCC has a corporate standard to gain the competitive advantage such as suitability for purpose, cost effectiveness, reliability, and ease of use, functionality, compatibility, ease of support, price, legislative requirement, and contractual requirement. The entire corporate goal is using to increase the quality in the market. WCC, for instance, changes the corporate systems especially in database systems (from Oracle to SQL server 2000). For library systems, WCC still use the same system because WCC think it still good system. Other Systems need to change because it is very important to increase and improve the performance systems. Focus on the one market make WCC can drive the IT/IS strategic planning become flexible and WCC will have the capability of T-Organization (Transforming Organization) to face the global market in the future.

### 2.3 Threat Of New Entrants

Threat of new entrance or a strong new competition force is generated by low barriers to market entry, nonproprietary products or raw materials, and little government regulation. (Dawkins, Cummings & Haag, 1998,p.309). Although, WCC is a government organization, WCC is trying to increase the operation support system. The operation support systems can change the process of supply and reduce the value of inventory and increase the stock. WCC identify to enable and increase the process of supply and demand management to gain profit. Furthermore, WCC try to more analyze in the cost effectiveness, so only the good strategic planning can be applied into organization.

## 2.4 Threat of Substitutes

Threat of substitutes or a strong substitute is generated by the existence of price competitive product or service alternatives. (Dawkins, Cummings & Haag, 1998,p.308) WCC, for instance, has a good planning for IT in the future. WCC apply some new systems in Information Technology area (IT system upgrade). It is very useful because with upgrading system, the fault management will decrease and the performance of service will increase. WCC is presenting some new IT technology into library system. For instance, customer can get much information in the library such as service WCC to the community, information detail about IT planning in the future for WCC. Therefore, community will get the most important information about service before they use it.

## 3. THE IMPACT OF IT IN WCC (DRIVING STRATEGIC)

### 3.1 Can IT Builds in Switching Cost?

This question addresses ways to increase the dependence of the firm's customers on its product and services. Management should be encouraged to think of ways to link the customer into the firm's operation so that the customer will find switching to another supplier difficult. Such difficulties are known as switching costs. Clearly, the linkage to a vendor needs to have a specific value for customer. (Thomson, 1997,p.333). For instance, WCC has some department to control the strategic planning. IT department has a responsibility to make an evaluation in the IT Strategic Planning. Planning is very significant to gain competitive advantage in WCC. Another example, WCC has a risk management policy that can reduce the damage of reputation in WCC. WCC uses CAPS (Corporate Assets Protection Systems) procedure to decrease the gap. The WCC also try to ensure that value for money can be effective and efficient

delivery in all services. (WCC Case notes,2003,p.2). IT Department, for instance, try to help customer with giving a customer a good service. When the problems come, there are some help desk or administration in every level, so the flexibility in service will be effective and efficient. Library system is upgraded to increase the performance and capability of information to customer or community in Wollongong.

### 3.2 Can IT Changes The Basis of Competition?

In industries where competition is intense, the basis for competition tends to be price. Competing on price can be a bruising proposition. In those industries, IT offers firm opportunities to compete effectively either by dramatically increasing productivity such as higher machine efficiencies or by adding features to their products or service. WCC, for instance, make some upgrading system in the computer system to gain a competitive advantage with the customer and other City Council in Australia. WCC upgrading the Local Area Network and Library system to increase the performance management and decrease the fault management. The most crucial thing is WCC try to serve the customer by adding a new feature that other City Council does not have it.

### 3.3 Can IT Generate New Products?

Not only can IT support the faster delivery of better and cheaper products, but sometimes IT can help the strategy of the firm by generating products on its own. (Thomson, 1997,p.333). WCC, for instance, has to upgrade the IT system every year. It is very important because with the development of new technology of IT can drive WCC in gaining the competitive advantage. Compare with the system of WCC in 2002 and 2003. WCC must change the database system from Oracle to SQL server 2000. It can be increasing the efficiency of the performance. WCC use the competitive intelli-

gence process such as planning, gathering information, and analysis to reach the right direction in the competitive advantage and capability organization.

#### 4. THE STRENGTH AND WEAKNESSES PORTER'S FIVE FORCES MODEL

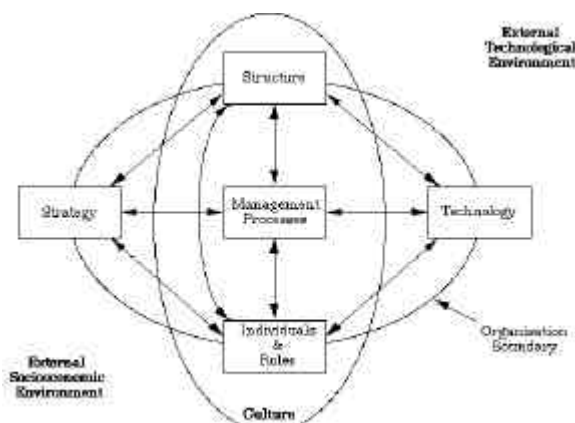
##### 4.1 The Strength Porter's Five Forces Model

Porter's five forces model has strength's to gain a competitive advantage. Porter's model can make an organization to increase the performance management between buyers and suppliers. Buyers are powerful if they are concentrated with the significant market, Buyers purchase significant proportion of output distribution of purchases or if the product is standardized, buyers possess a credible backward integration threat. Suppliers are powerful if there is credible forward integration threat by suppliers. Suppliers have to concentrate, significant cost to switch suppliers, and customer powerful. ([www.quickmba.com](http://www.quickmba.com)).

##### 4.2 The Weaknesses Porter's Five Forces Model

Although Porter's model has strength's to gain a competitive advantage and to increase the relationship between supplier and buyer, Porter's model can not examine some gap in the organization. Significant buyers switching cost-products not standardized and buyer can not easily to another product. Buyers are fragmented (many, different) - no buyer has any particular influence on product or price. Suppliers are weak if there is many competitive suppliers-products is standardized. Suppliers also weak if they are purchase commodity products, customer weak, concentrated purchasers, and credible backward integration threat by suppliers themselves. ([www.quickmba.com](http://www.quickmba.com)).

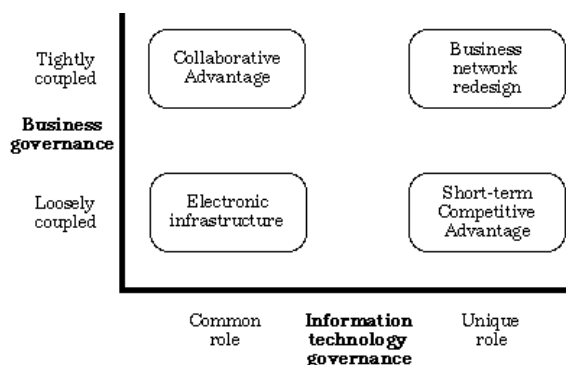
#### 5. SCOTT MORTON'S FIVE FORCES MODEL



Five forces influence the Organisation's objective

Organizations are facing the reconceptualisation of the role of information technology in business. Scott Morton proposes five levels of complexity at which reconfiguration can be applied ([www.anu.edu.au/people/roger.clarke/SOS/StratISTH.html](http://www.anu.edu.au/people/roger.clarke/SOS/StratISTH.html))

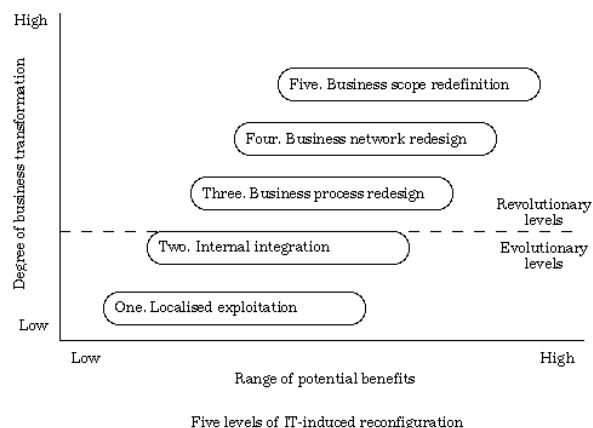
Compare with Porter's five forces model, Scott Morton's model focus on two level first that is very important to analyze.



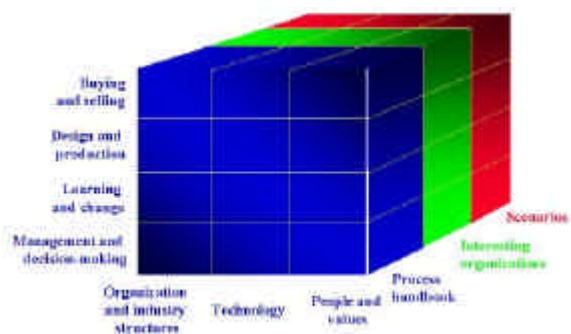
- **Evolutionary levels:**
  - ❖ **Localized exploitation** within individual business functions. The primary objectives addressed are local efficiency and effectiveness.
  - ❖ **Internal integration** between different systems and applications, generally involving not just automation, but also rationalization, and using a common IT platform. Coordination and corporation within enterprise enhance efficiency and effectiveness.

• **Revolutionary levels:**

- ❖ **Business process redesign**, involving more through re-evaluation of the enterprise value-chain and the production process, and more far-reaching change.
- ❖ **Business network redesign**, the reconfiguration of the scope and tasks of the business network involved in the creation and delivery of products and services. Coordination and cooperation extend, selectively, beyond the enterprise's boundaries, and;
- ❖ **Business scope redefinition**, involving migration of functions across the enterprise's boundaries, to the extent of changing the organization's conception of the business ([www.anu.edu.au/people/roger.clark/SOS/StratISTh.html](http://www.anu.edu.au/people/roger.clark/SOS/StratISTh.html)).



The nature of IT governance ranges from a common role (the position occupied by any given player is no different from the position occupied by other player in the network, as in the case of adoption of a common EDI standard) to unique role (the position occupied by the different players are different because of their use of a dedicated, proprietary network, or their offering of specialized, value-added software or other services on the standard communication network).



**5.1 Scott Morton's Five Levels of IT-Induced Reconfiguration**

The nature of business governance is conceptualized along a continuum from loosely coupled (arm's-length, standard relationship like the classic open-market transactions, with relatively low cost to switch from one participant to another) through to tightly coupled (unique, specialized relationships with high switching cost). The specific mode of functioning is dictated by the nature of the product, of its exchange and of its critically, which are dictated by the business strategic thrusts and are independent of the IT. ([www.anu.edu.au/people/roger.clarke/SOS/StratISTh.html](http://www.anu.edu.au/people/roger.clarke/SOS/StratISTh.html))

**5.2 The Implementation of Scott Morton's Model**

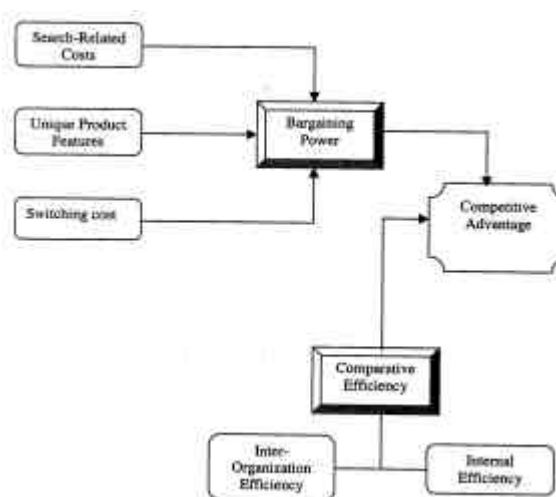
After using Porter's five forces model, Scott Morton's five force models suggest to analyze the management strategy. And then Scott Morton's suggestion is to increase the service between suppliers and buyers. WCC, for instance, can be used this model because Scott Morton's model give the benefit to decrease the gap between all aspects such as IT and social perspective. The problem is Scott Morton's has not given a solution how to decrease the gap between individual roles and social aspects. WCC is a government organization that is using some role, so for individual role, Scott Morton's method difficult to be applied.

**6. BAKOS AND TRACY MODEL**

According to Bakos and Treacy framework, the two major sources of Porter's Model competitive advantage are bargaining power and comparative efficiency. (Turban, 2001). Bacos and

Treacy model describe five specific items: search related cost, unique product features, switching cost, internal efficiency, and inter-organizational efficiency. Initially, IT (Information technology) efforts were aimed at increasing comparative efficiency. Lately, however, IT is also dealing with enhancing bargaining power activities. (Turban, 2002, p.95).

WCC, for instance, can also use this model (Bakos and Treacy Model) to gain a competitive advantage in the future. Bakos and Treacy Model give some suggestion to analyze the unique product that can be effect to the bargaining power. Then, Bakos and Treacy Model also give to analyze the costs and switching cost that can be effecting the bargaining power also. To gain a comparative efficiency, Bakos and Treacy suggest defining the internal efficiency and inter-organization efficiency, so the efficiency can be reaching. After applying all the systems, competitive advantage can be reach in the organization. There are some drawbacks that Bakos and Treacy model. If WCC use this model the problem is the competition inside the WCC will increase dramatically. It means, the efficiency needs to define the cost. If WCC has a lot of cost to increase the performance management, it will be better, but if not, it is difficult for WCC to gain competitive advantage. Another problem is, WCC is a government organization that has some role. The roles make a limitation to increase the efficiency, if the cost is too much, it will make WCC drive into difficult situation. On the other hand, WCC has a benefit if using this model. The efficiency will increase step by step. It means WCC upgrade the IT system step by step and have a good IT strategic planning, so WCC will be a good system which make a different from other city council. See the framework.



## 7. CONCLUSION AND RECOMMENDATION

In conclusion, WCC (Wollongong City council) is a government organization which uses the IT system to gain a competitive advantage. WCC (Wollongong City Council) has a good planning in driving a strategy in IT/IS. Porter's five forces model will give many benefit to WCC (Wollongong City Council) to gain and drive a business in the right direction. Some models such as Scott Morton's model are also very useful for WCC (Wollongong City Council) to gain the efficiency and effectiveness especially in the social perspective. Another model Bakos and Treacy can give also give many benefit to increase the performance management, decrease the fault management in the organization. It is clear that WCC (Wollongong City Council) will get many benefits when WCC use this three model. Porter's model, Scott Morton's model and Bakos&Treacy model has a weakness and strength's. But to gain a competitive advantage, drive the business in the right direction, and increase the customer service into community in Wollongong, WCC (Wollongong City Council) can use these models. Porter's five forces model has a weakness but the Scott Morton's model has strength's to decrease the weakness of Porter's model. On the other hand, Bakos and Treacy model also has a weakness but Porter's

five forces model can decrease the weakness of Bakos and Treacy model.

There are some recommendations from the writer. After analyzing from some books, some reports from Internet, the writer suggest some solution for WCC (Wollongong City Council) for gaining the competitive advantage in the future and to face the global economy.

➤ **Bargaining and Negotiation**

Bargaining and negotiation are important tools that help manger manage conflict. Because change causes conflict, bargaining is an important tool in overcoming resistance to change. By using action research, managers can anticipate the effects of change on interpersonal and inter-group relationship. (George & Jones, 2002, p.668). WCC (Wollongong City Council) has to increase the capability of bargaining and negotiation to customer. For instance, if there is some customer not satisfied with the service that WCC now, WCC has to explain to the customer with honestly the limitation of system in the WCC. Another reason is, if there some problem with the system that make a customer dislike, WCC should identify and analyze the situation of the system, so the fault management in WCC can be decreasing.

➤ **Performance and Fault Management**

WCC (Wollongong City Council) can increase the performance management with using the Porter's five forces model to gain a competitive advantage in the future. Porter's model has some weakness but with combining with other models such as Scott Morton's model and Bakos&Treacy model, the weakness of the model will be covering very well. Fault management will decrease also when using these models. Supply and demand will be controlling very well.

➤ **Manipulation**

When it is clear that change will help some individuals and groups at the expense of others, senior managers

need to intervene in the bargaining process and manipulate the situation to secure the agreement, or at least the acceptance, of various people or groups to the result change process. (George & Jones, 2002,p.668). WCC (Wollongong City Council) can use this strategy to gain a competitive advantage in the future. WCC must make a different with other city council area. For instance, WCC (Wollongong City Council) make something really different. If other city council has the new system for IT, WCC has to analyze and examine very carefully, so WCC will have something different that other city council does not have.

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