

AN EXPLORATORY INVESTIGATION INTO THE APPLICATION OF E-COMMERCE ON THE WEB MARKETING MIX WITHIN THE DUTCH FOOD INDUSTRY

(Case Study Analysis: Campina BV)

Thesis

As a partial fulfillment to achieve a Master Degree

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Submitted by
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An Exploratory Investigation into the Application of E-Commerce on the Web Marketing Mix within the Dutch Food Industry

[Case Study Analysis: Campina BV]



Yanto Togi Ferdinand Marpaung

Dissertation project submitted to
University of Groningen
for the degree of
Master of Science in International Business

European Academic Consortium for Management Studies

2003

*"For I know the plans I have for you," declares the Lord,
"Plans to prosper you and not to harm you,
plans to give you hope and a future."
(Jeremiah 29:11 NIV)*

*Lord, I believe that You created me for a special purpose,
and that You have a perfect plan for my life.
I ask that You fulfil Your purpose for me,
and help me to do my part
by earnestly seeking You daily
through prayer and Your Word.
Thank You that as I seek You each day,
You will guide me along
the best pathway for my life!
(Psalm 32:8 NLT)*



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GENERAL INFORMATION

Year	: 2003
Name	: Yanto Togi Ferdinand Marpaung
Title	: “An Exploratory Investigation into the Application of E-Commerce on the Web Marketing Mix within the Dutch Food Industry”
Supervisor	: Nicola Campbell, BA (Hons)., M.Sc.,
Research Problem	: “Since rapid changes in technology have influenced the way of doing business in many industries and the number of Internet users have increased, what is the extent of E-Commerce applications on the 4S Web Marketing Mix Model in Campina BV”
Findings	: The research findings illustrate the consolidated market in Dutch food industry and E-Commerce technology has offered opportunities for companies to compete in that particular industry. The 4S Web Marketing Mix Model as proposed by Constantinides (2002) provides insight and deeper understanding into marketing on the Web.
Keywords	: E-Commerce, E-Commerce Business Model, Web Marketing Mix Model, Dutch food industry

EXECUTIVE SUMMARY

Rapid changes in technologies have driven businesses to adapt quickly. These changes have also influenced the way of doing business. The emergence of E-Commerce technology offers opportunities as well as challenges for business.

Many scholars argue that the traditional marketing mix theory is not adequate to explain marketing on Web appropriately. Therefore, a proliferation of studies has been conducted in order to discover theories that can adequately explain the differences between physical marketing and virtual marketing. In line with that, the 4S Web Marketing Mix Model offers a basic framework for developing and describing marketing on the Web.

This research project examined how the 4S Web Marketing Mix model is applied within Campina BV through case study analysis. In particular this research project explores all of the following, namely:

- What is happening within the Dutch food industry?
- What actions or market conditions have allowed some food producers to create value through E-Commerce?
- How does Campina BV improve its operations by conducting E-Business?
- What are the implications of E-Commerce applications on the Campina's Web marketing mix?
- What are the critical factors for Campina to succeed in the food industry?

The findings for this thesis were derived primary and secondary data. Interview questions were conducted by mail and the objective of those questions was mainly to explore the E-Commerce application within Campina BV.

The findings describe the consolidated market in Dutch food industry and E-Commerce technology has offered opportunities for companies to compete in that particular industry. The 4S Web Marketing Mix Model as proposed by Constantinides (2002) provides insight and deeper understanding into marketing on the Web.

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PREFACE

First and foremost I would like to thank my Lord, Jesus Christ who gave me strength in every circumstances and made a way where there seemed to be no way. Without His boundless love and His great mercy, I would not be able to complete this work.

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This thesis is written primarily to gain a better understanding of the situation within the Dutch food industry and its implication for Dutch food companies. As the traditional marketing mix is differs from that of virtual marketing mix, the Web Marketing Mix Model was applied in order to examine the impacts of E-Commerce within Dutch food industry, and Campina BV was selected as a company for case study analysis.

To this end, I would like to invite either comments or constructive criticisms, and I hope that this thesis will be fruitful for whoever is interested in exploring more about this research topic .

Groningen, February 20, 2004.

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CHAPTER 1

INTRODUCTION

1.1 Aim

The objective of this research project is to investigate on how the 4S Web Marketing Mix model is applied in the Dutch Food industry through case study analysis on Campina BV.

1.2 Introduction

Rapid changes in technology have changed the world, not merely in business, but also in non-commercial area in the world. Technology facilitates us to access information from anywhere in the world, to maintain relations with customers, employees and other business partners in a different way. Therefore, companies need to recognize these changes and adjust their way of doing business in order to take benefit from such developments.

Having regard to that, Molenaar (2002) argues that a new opportunity exists, namely E-Commerce. Furthermore, he suggests that E-Commerce implies changes, from old way of doing business into the new way of doing business, which also could lead to organizational changes and to changes in the relations between organizations.

In recent years, E-Commerce has been embedded in daily business operations. Many firms are using E-Commerce to foster their businesses to keep up with their competitors. Nevertheless, the ECommerce revolution has played a significant role to the present economic conditions in many countries. Some studies even showed that E-Commerce played a major role in transmitting about the economic downturn. They observed the decline share values as well as the increasing level of unemployment in almost all areas of the high technology sector (Accenture, 2002).

International Telecommunication Union (ITU) estimates that the number of Internet users worldwide in 2001 was 500 million people. That represents a 30 percent higher increase on figures for 2000. The ITU forecasts that 655 million people would be using the Internet worldwide, which represents 31 percent of a yearly growth. This also corresponds with data that demonstrate the increasing number of new Internet users in developing countries. Table 1, as shown below illustrates the number of Internet users 2000 – 2001 by region (UNCTAD, 2002).

From Table 1.2.1 below, we observe that in Africa, the number of Internet users increased 46.4 percent from 4.601.000 to 6.738.000 and in Latin America; the number of Internet users increased 36.2 percent form 19.331.000 to 26.320.000. In North America, the number of Internet users increased 14.4 percent from 136.700.00 to 156.323.000.



In Asia as well as Africa, the number of Internet users stridently increased around 45.8 percent from 108.231.000 to 157.779.000. In Oceania, the number of Internet users increased 11.4 percent from 7.635.000 to 8.505.000. In Europe, the number of Internet users increased 33.3 percent from 108.339.000 to 144.410.000, while in the Netherlands Internet users is increased 35.9 percent from 3.900.000 to 5.300.000. On average worldwide Internet users increased 29.9 percent from 384.837.000 to 500.074.000.

In other words, since there are increasing numbers of Internet users worldwide, including the Netherlands, applying ECommerce for business use would deliver many benefits to companies.

Table 1.2.1 Internet users 2000 – 2001 by region (thousands)

Region	2001	2000	Increase	% Change
Africa	6.738	4.601	2.137	46.4
South Africa	3.068	2.400	668	27.8
Egypt	600	450	150	33.3
Kenya	500	200	300	150.0
Morocco	400	200	200	100.0
Tunisia	400	250	150	60.0
Others	1.770	1.101	669	60.8
Latin America & Caribbean	26.320	19.331	6.989	36.2
Brazil	8.000	5.000	3.000	60.0
Mexico	3.636	2.712	923	34.0
Chile	3.102	2.537	565	22.3
Argentina	3.000	2.500	500	20.0
Peru	3.000	2.500	500	20.0
Venezuela	1.300	950	350	36.8
Colombia	1.154	878	276	31.4
Others	3.128	2.253	875	38.8
North America	156.323	136.700	19.623	14.4
United States	142.823	124.000	18.823	15.2
Canada	13.500	12.700	800	6.3
Asia	157.779	108.231	49.547	45.8
Japan	57.900	37.200	20.700	55.6
China	33.700	22.500	11.200	49.8
Republic of Korea	24.380	19.040	5.340	28.0
Taiwan Province of China	7.820	6.260	1.560	24.9
India	7.000	5.500	1.500	27.3
Others	26.979	17.731	9.247	52.2
Europe	144.410	108.339	36.071	33.3
Germany	30.000	24.000	6.000	25.0
United Kingdom	24.000	18.000	6.000	33.3
Italy	16.000	13.200	2.800	21.2
France	15.653	8.500	7.153	84.2
Spain	7.388	5.287	2.000	37.1
Netherlands	5.300	3.900	1.400	35.9
Sweden	4.600	4.048	552	13.6
Russian Federation	4.300	3.100	1.200	38.7
Poland	3.800	2.800	1.000	35.7
Others	33.369	25.403	7.966	31.4
Oceania	8.505	7.635	870	11.4
Australia	7.200	6.600	600	9.1
New Zealand	1.092	830	262	31.6
Others	213	205	8	3.9
World	500.074	384.837	115.237	29.9

Source: E-Commerce and Development Report 2002. UNCTAD. 2002 (http://www.unctad.org/en/docs/ecdr2002_en.pdf)

Since the introduction of E-Commerce applications and the phenomena of increasing numbers of Internet users, many marketing theories endeavor to explain the impacts of E-Commerce technology application in business operations. According to Constantinides (2002), there is another paradigm, which gives more insight understanding as regards E-Commerce application or Web marketing.

Constantinides (2002) argues that the traditional marketing management approach, which is popular with marketing mix (4Ps), is inadequate to explain virtual marketing. Furthermore he suggests that the 4S elements (Scope, Site, Synergy, System) of his Web Marketing Mix framework can offer the basis for developing and commercializing Business to Consumer on-line projects.

In respect of changes in technology, the food industry, which represents one of the Dutch agri-sectors, has played an important role in Dutch economy. According to the Dutch Ministry of Agriculture, the agri-sector represents a gross added value of approximately 73,000 million guilders, which means equal to around 12% of the GDP in year 2000 (minlnv.nl). In addition, the turn-over in the food sector is rising and now stands at 90.000 million guilders (about 40.000 million Euro), and together with drinks and tobacco, food sector has make up 18% of the added value of the total industry in the Netherlands.

According to the Dutch Dairy Board in Statistisch Jaaroverzicht 2002 (www.produivel.nl), Campina BV is one of the largest dairy food producers in the world (see Table 1.2.2). Campina's strategy to add value to milk, one of its strategic priorities for further growth is to give priority to geographical market leadership in respect of its dairy drinks in Western Europe and developing a world leading market position for its specific dairy ingredients. Therefore, in this research project will examine the impacts of E-Commerce application on Web marketing mix within Dutch food industry, case study on Campina BV.

Table 1.2.2 Largest Dairy Food Producers in the World

	Concern	Land	Omzet (€ miljard)
1	Nestlé	Zwitserland	16,1
2	Dean Foods	USA	7,5
3	Dairy Farmers of America	USA	6,8
4	Fonterra	Nieuw Zeeland	6,7
5	Arla Foods	Denemarken/Zweden	6,4
6	Danone	Frankrijk	6,3
7	Parmalat	Italië	6,1
8	Kraft Foods	USA	5,6
9	Lactalis	Frankrijk	5,5
10	Unilever ¹⁾	Nederland/Verenigd Koninkrijk	5,2
11	Friesland Coberco Dairy Foods	Nederland	4,5
12	Meiji Dairies	Japan	4,4
13	Bongrain	Frankrijk	3,9
14	Morinaga Milk Industry	Japan	3,9
15	Campina	Nederland	3,8
16	Land O'Lakes	USA	3,1
17	Sodiaal	Frankrijk	2,7
18	Humana Milchunion	Duitsland	2,5
19	Schreiber Foods ¹⁾	USA	2,5
20	Nordmilch ²⁾	Duitsland	2,4

bron: Rabobank International

opmerking: omzet 2002 + fusies & acquisities in 2003

1) schatting

2) cijfer 2001

Source: Statistisch Jaaroverzicht 2002 (www.produivel.nl)



1.3 Problem Definition

“Since rapid changes in technology have influenced the way of doing business in many industries and the number of Internet users has increased, what is the extent of E-Commerce applications on the 4S Web Marketing Mix Model in Campina BV”

1.4 Research Question

The specific questions explored in this study are:

- What is happening within the Dutch food industry?
- What actions or market conditions have allowed some food producers to create value through E-Commerce?
- How does Campina BV improve its operations by conducting E-Business?
- What is the extent of E-Commerce applications on Campina’s Web marketing mix?
- What appear to be the critical factors for Campina to succeed in the food industry?

1.5 Methodology

- Company Interview

The interview will be conducted during two months from July to August 2003. Respondents are either owner-manager or those whose primary responsibility for the implementation of ECommerce in the business and marketing department of the company. Initial contact will be conducted by email, followed by interviewing or faxing the interview questions and list of topics to be covered in the interview.

- Case Study

The information collected in the interviews is treated as a case study that contains lesson on the way. And in this research, Campina B.V has been selected for case study analysis.



1.6 Data Collection

In order to make an analysis, therefore I would like to collect the data from various sources. The sources are structure into two main forms:

- Primary Data
Primary data would be the data from Campina BV. Observations as well as in-depth interviews would be fruitful to conduct in order to obtain the appropriate data.
- Secondary Data
This data would be collected from the Internet, books, journals, University and Institute research documentation, newspapers and magazines.

1.7 Data Analysis

I would like to employ strategic analysis as a tool to analyze the primary and secondary data. Two main analyses namely industrial analysis and the 4S Web Marketing Mix Model are employed.

- 1) Industrial Analysis
 - Rivalry among existing firms
 - Potential Entrants
 - Buyers
 - Suppliers
 - Substitutes
- 2) The 4S Web Marketing Mix Analysis (Constantinides, 2002)

The purpose of this model is to gain a better understanding of the application E-Commerce technologies within Campina V. This analysis comprises four elements, namely: Scope (S1); Site (S2); Synergy (S3) and System (S4).

a). Exploratory Analysis

- Scope (S1): Strategy and Objectives
 - Market Analysis: Competition basis, competitors, market potential, market forecast, market trends
 - Potential Customers: Profiles, motivation, behavior, needs and current way of fulfilling them, priorities
 - Internal Analysis: Internal resources, processes, value. Is the Web a sustaining or disruptive technology?
 - Strategic Role of the Web Activities: Generic types: Informational, educational, relational, promotional, transactional

- Site (S2): Web Experience
 - Customer oriented content. Consists of important questions:
 - ❖ What does the customer expect in the site? Domain name, content, design, layout, atmosphere, aesthetic and Web site positioning and the classic 4Ps
 - ❖ Why the customer will make use of the site? Simplicity, functionality, speed, findability, searchability, navigation, interactivity and customization.
 - ❖ What motivates customers to come back?
- Synergy (S3): Integration
 - Front Office Integration: Integration with the physical Marketing Strategy and Marketing Activities
 - Back Office Integration: Integration of the Web site with Organizational processes, Legacy systems and Databases
 - Third Party Integration: Create networks of partners who will assist the commercial, logistic and other site activities
- System (S4): Technology, Technical Requirements and Web Site Administration Software, hardware, communication protocols, content management, system service, site administration, hosting decisions, payment systems, performance analysis

b). Regression Analysis (Griffith, *et.al*, 1993)

$$y_t = b_1 + x_{t2}b_2 + x_{t3}b_3 + \dots + x_{tk}b_k + e_t$$

where:

y_t = either profit or total revenue

x_{t2}, \dots, x_{tk} = explanatory variable

b_1 = constant

b_2, \dots, b_k = the effects of changes in explanatory variable to dependent variable (y_t)

e_t = errors

This regression analysis model will measure the impacts of explanatory variable (S1 – S4) into explained variable (total revenue or profit).



-
- Explained Variable
 - Campina's Total Revenue, or
 - Campina's Profit
 - Explanatory Variable
 - Scope (S1)
The number of Campina's web visitors on year-by-year basis and Campina initial investment costs.
 - Site (S2)
The number of Campina's site speed and bandwidth speed
 - Synergy (S3)
The number of customer's complains, banners, buttons, and links on year-by-year basis.
 - System (S4)
The number of staff or personnel.

1.8 Summary

This chapter has introduced the aim of the research, the problem definition, research question, discussed the methodology, data collection and data analysis.

CHAPTER II

LITERATURE REVIEW

The aim of this chapter is to give a theoretical review of this research study. This chapter consists of three main theoretical reviews, namely: Industrial Analysis, E-Commerce and Web Marketing Mix Model.

2.1 Industrial Analysis

Thompson and Strickland (2001) defined an industry as “a group of firms whose products have so many of the same attributes that they compete for the same buyers”. In line with that Hax and Majluf (1991) defined an industry as “a group of firms offering products or services which are close substitutes of each other.” Thompson and Strickland (2001) then explained that there are several factors, which are essential for understanding industry in economic features and these factors are important because of its implications on company’s strategies. The implications of these factors will discuss further in this chapter (see Figure 2.1). Therefore, the factors are:

- The size of the market.
- The scale of competitive rivalry (local, regional, national, international or global).
- The growth rate of the market and position in the business life (early development, rapid growth and takeoff, early maturity, saturation and stagnation, decline).
- The number of rivals and their relative sizes. Since these will describe the industrial condition whether the industry is fragmented into many small companies or concentrated and dominated by a few large companies.
- The number of buyers and their relative sizes.
- The condition of industry rivals (Whether and to what extent industry rivals have integrated backward and/or forward).
- The various types of distribution channels that are use to access consumers.
- The rapid change in technology in terms of both production process innovation and new product introductions.
- Products and services differentiation (highly differentiated, weakly differentiated, or essentially identical).

- Economies of scale in purchasing, manufacturing, transportation, marketing or advertising.
- The industrial location cluster of a particular industry. For example, Silicon Valley, Hollywood (for movie industry), and New York City (for financial services).
- The characteristics of learning and experience effect (strong learning, “learning by doing”) that will make the unit costs are decline as cumulative output grows.
- The capacity of utilization. High degree of utilization capacity will make the cost of production is lower.
- Capital requirements and types of entry and exit.
- Profitability of the industry.

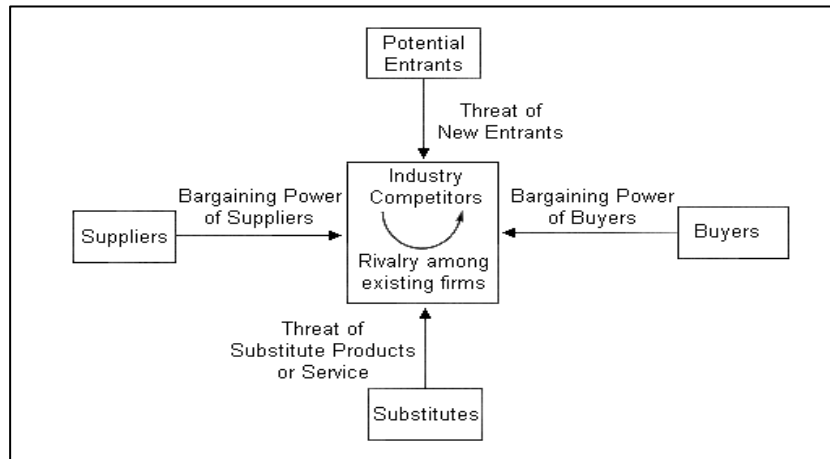
As aforementioned, those economic features have an impact on the strategies of firms, and are shown in the under-noted Table 2.1.

Table 2.1 Examples of the Strategic Importance of an Industry’s Key Economic Features

Economic Feature	Strategic Importance
• Market size	• Big competitors will tend to put more interest in large market rather than in small market.
• Market growth rate	• Fast growth will generate new entry, and slow growth will increase competition and shakeout of weak competitors.
• Capacity surpluses or shortages	• Surpluses will make the price and profit margin down; on the other hand, shortages will pull the price and profit margin up.
• Industry profitability	• New entrants will look into high profit industries, and poor market conditions will encourage exit.
• Entry/Exit barriers	• High barriers protect existing firm’s position and profits and low barriers will make existing firm exposed to entry.
• Cost and importance of product	• Buyers seek for the lowest price on big mark products than on expensive ones.
• Standardised products	• In this term, buyers are more powerful because it is easier to change from seller to seller.
• Rapid technological change	• Equipment and facilities may become obsolete in a very short time. Therefore, companies should consider about this raises risk factor.
• Capital requirements	• Decisions will become critical if big capital requirements get involved, and it will also create a barrier to entry and exit, therefore timing becomes more important.
• Vertical Integration	• The increasing number of capital requirements needed often create competitive and cost differences among fully versus partially versus non-integrated firms.
• Economies of scale	• The increasing number of production volume and market share will require them to be cost competitive.
• Rapid product innovation	• New innovations products will launch sooner by rivals than current market leader since the product life cycle is shorten in respect of rapid product innovation.

Source: Thompson and Strickland, 2001.

Afterwards, Porter (Thompson and Strickland, 2000) argues that although competitive conditions in many industries are not similar in particular way, but the process of competition has a similarity in respect of the nature and intensity of competitive forces. Figure 2.1. below describes the key analytical tool for diagnosing the competitive environment.



Source: www.shopzone.co.nz/mworld/porter.htm

Figure 2.1 The Five Forces Model of Competition: A Key Analytical Tool for Diagnosing the Competitive Environment

Porter (1980) defines that the condition of competition in a particular industry is a compound of *five competitive forces*, namely:

1. The rivalry among existing firms.
2. The potential entry of new entrants.
3. Threat of substitute products or services.
4. Bargaining power of suppliers.
5. Bargaining power of buyers.

2.1.1 The Rivalry among Existing Firms

According to Porter (1980), rivalry arises because there is either a pressure in the industry or an opportunity to improve position between one or more competitors. Porter (1980) also argues that competitive moves by one firm may have significant effects on its competitors and allowed competitors to make retaliation efforts to counter the move. There are two commonly forms of competition such as price competition which make firms to cut prices, lowering revenues and advertising battle which may develop demand or improve the level of product differentiation for the benefit of all firms in the industry.



In line with that, there are several indicators that influence the intensity of competition between companies within a particular industry (Thompson and Strickland, 2001), such as:

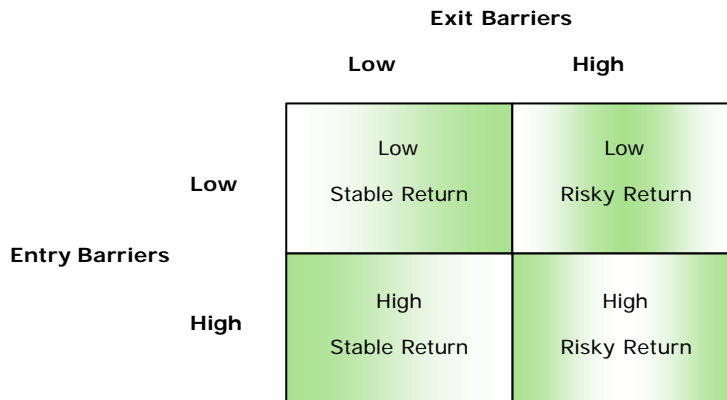
- The degree of rivalry is increased as the number of competitors increased and as competitors become more equal in size and capability.
- The slow growth of products demand will make the degree of rivalry is usually stronger.
- Price wars or other competitive moves in order to enhance sales volumes will make the rivalry in the industry become more intense.
- The lower the cost to switch brand by customers will make the rivalry become stronger.
- Rivalry is become stronger when one or more competitors are displeased with their market position and make strategic moves to augment their position at the expense of rivals.

For example, firms are often acquiring small rivals, doing intensive advertising, cutting prices when they are losing ground or in financial trouble. And these actions can also increase the intense of rivalry since many firms will counter those moves in order to battle their market shares.

- A successful strategic move from a rival firm may increase the degree of rivalry in the industry in proportion to the size of the payoff from that successful strategic move.
- The degree of rivalry in a particular industry will increase when the costs to get out of a business are higher than to stay in and compete.

In line with that, Porter (1980) then argues that the factors, which influence the degree of competitive rivalry can and do change, and he also highlights that the exit and entry barriers can be an important feature to analyse the industrial profitability.

For example, the best perspective of industrial profitability is if the entry barriers are high but the exit barriers are low. In this perspective, entry will be deterred and competitors who are unproductive will leave the industry. Figure 2.2. below depicts the entry and exit barriers within a particular industry.



Source: Porter (1980).

Figure 2.1.1 Barriers and Profitability

- The variety of firms in terms of visions, strategic intents, objectives, strategies, resources and countries of origin will enhance the degree of rivalry.
- The strategic moves from a particular company such as acquiring weak firms in the industry and commence aggressive, well-funded moves to transform its newly acquired competitors into industry will make the degree of rivalry also become higher.

2.1.2 The Potential Entry of New Entrants

There are several types of entry barriers that may face by new entrants to enter a particular industry (Porter, 1980; Hax and Majluf. 1991, Segal-Horn and Faulkner. 1999, Thompson and Strickland, 2001), such as:

- Economies of scale.
Economies of scale represent the declining in unit cost of a product or operation or production function as the increasing of absolute volume per period. These economies of scale also can be present in every business functions such as manufacturing, purchasing, research and development, marketing, service network, utilization of sales force as well as distribution.

Economies of scale deter entry by several forces such as forcing the new entrants to enter the industry in at large scale and risk strong reaction from existing firms or enter the industry by accepting a cost disadvantages because they come in at a small scale.
- Cost and resource disadvantages independent of size.
Existing firms may have cost and resource advantages that hard to copy by potential entrants. These advantages can include several items such as access to raw material, favourable locations, proprietary product technology, learning or experience curve in the industry and subsidies from government.



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- Learning and experience curve effects.
As aforementioned, new entrants may not have advantages in learning and experience curve effects in the industry because they competing against existing firms that may have accumulated know how as well as lower unit costs.
 - Inability to match the technology and specialized know-how of firms already in the industry.
New entrants may hard to compete against existing firms since the existing firms may have more technical capabilities in the industry, ability to execute complicated manufacturing process and they also may carefully protect the know-how that gives them advantages in the industry.
 - Brand preferences and customer loyalty.
There is a tendency that buyers are often loyal to existing brands. For example, Japanese consumers are loyal to Japanese products and European consumers are loyal to European brands of major existing household appliances brands. Therefore, these facts can lower expected profit margin for new entrants.
 - Capital requirements.
New entrants may need large financial investments in order to compete with existing firms. The most capital applications are for manufacturing plants and equipments, advertising, research and development, working capital to finance inventories, customer credit and cash reserves for covering start-up losses.
 - Access to distribution channels.
New entrants may experience the barriers of getting adequate resources in the industry since the existing firms may have strong relationship with present distribution channels.

For example, a food manufacturer must able to persuade the retailer to give the m space on supermarket shelf as well as to convince the retailer that they will do intense sales promotions and other selling efforts.
 - Regulatory policies.
Government policies can be barriers to entry a particular industry for new entrants, since government regulates every industry with such controls or policies such as licensing requirements, limit on access to raw materials, pollution controls, product safety and standardization of the required technological sophistication as well as the optimal scale of facilities.
 - Tariffs and international trade restrictions.
In order to raise entry barriers for foreign firms and protect domestic producers from new competition, national government commonly use tariffs and trade restrictions such as anti dumping rules, local content requirements and quotas. For example, European governments set-up a rigid formula for calculating floor prices for computer memory chips.
-

- **Switching costs**

Switching costs may create an entry barrier for new entrants. Switching costs is a cost that faces by buyer which switching from one supplier's product to another supplier's product. Therefore, new entrants may offer a major improvement in cost performance in order to face high switching costs.

Afterwards, in order to evaluate the potential threat of new entrants, there are two factors that commonly use to evaluate the potential threat of new entrants, namely:

- The difficulties of entry barriers for each type of potential entrants, such as start-up enterprises, entrant companies in either looking for expanding its businesses or in other industries.
- The profit attractiveness of the new industry for new entrants. Firms outside the industry will keen to move to a particular industry because of the profit offered in that industry.

Therefore, the high or low competition degree in order to enter a particular industry for potential new entrants is based on the available resources and competition possessed by the group of potential new entrants, and the best tools to test the attractiveness of an industry for additional entry is by measuring the industrial growth and profit prospects.

2.1.3 Threat of substitute products or services

Porter (1980) underlines that in general, all firms in a particular industry are in competition with industries, which are producing substitute products. For example, sugar producers are competing with sugar substitute producers such as high fructose corn syrup producers and sweetener producers.

The degree of competitive pressures from substitute products is depend on three factors (Thompson and Strickland, 2001), namely:

- An attractive price of substitute products.
- The perspective of buyers that view the substitute products as good substitute products in terms of quality, performance and other relevant attributes.
- Buyers can switch their needs or wants into substitute products straightforwardly.

Moreover, Porter (1980) also emphasizes the characteristics of substitute products, which ought to have more attention, such as:

- Substitute products, which have better price-performance trade-off against other products within the industry.

-
- Substitute products, which are produced by industries earning high profits.

Therefore, analyzing the threat of substitute products or services are important for composing a further company's strategic plan, in respect of company's initiatives in order to respond the competitive strength of its substitute products.

2.1.4 Bargaining Power of Suppliers

According to Thompson and Strickland (2001), the degree of suppliers bargaining power is depend on two factors, namely:

- The power of suppliers to influence the terms and conditions of supply.
- The extent of supplier-seller partnership in the industry.

Porter (1980) subsequently argues that several conditions may make the bargaining power of supplier are strong, such as:

- The group of supplier only consists of a few firms and sells their products to fragmented buyers; therefore suppliers usually can influence the price and quality of supply.
- There is no competition against substitute products in the industry.
- The suppliers are not selling their products into important customer, in terms of significant fraction of sales, in the industry.
- The products that supplier's have are important input to the buyer's businesses.
- The products that supplier's have are differentiated or it has built up switching costs.
- The supplier groups present a likely threat of forward integration that will provide a check against the industry's ability to enhance the terms on which it purchases.

Thompson and Strickland (2001) underline that partnership between sellers and suppliers can create competitive pressures because of their close and strategic partnership. There are two main benefits of this partnership that attached to this sellers and suppliers relationship, such as:

- Promoting just-in-time deliveries and reducing inventory and logistics costs.
- Enhancing the technological availability of the next component generation, and reducing its defects.
- Enhancing the availability of the next component generation.

-
- Reducing the supplier's costs in order to get lower price from items supplied.

Porter (1980) also underlines that labour must be acknowledged as a supplier since they have great power in various industries since that labour union and highly skilled employees can influence the company's businesses and profit in an industry. Therefore, analysing the bargaining power of suppliers is important since suppliers have an important role to the company's businesses and profits and often can threatening the industry in terms of price and products quality that they provide.

2.1.5 Bargaining Power of Buyers

Thompson and Strickland (2001) emphasizes that the degree of buyers bargaining power depends on two factors, namely:

- The power of buyers to use adequate bargaining power to influence the terms and conditions of supply.
- The extent of supplier-seller relationship in the industry.

Porter (1980) also argues that there are several conditions which may make the bargaining power of supplier is greater, such as:

- Large portion of sales is purchased by buyer compare to seller sales.
- Buyer's costs or purchases are significant in the industry.
- The products that purchased by buyers from the industry are standard.
- Low switching costs.
- Buyers likely a significant threat of backward integration that allowed them in a position to demand bargaining concessions.
- The products that offered by the industry are not a key role to the buyer's in respect of quality.
- The buyer has complete information about market conditions, such as the product demand. Market prices, supplier costs, and other information that make their bargaining power are greater.

Thompson and Strickland (2001) define that the partnership between sellers and buyers can threaten the industry in respect of business-to-business relationship as opposed to business to consumer relationship. This is because much evidence that indicate sellers who provide products to business customers are more likely has mutual partnership.

For instance, Wal-Mart provides the manufactures with whom they doing business with daily sales data from their stores. Therefore, analyzing the bargaining power of buyer is important since buyers also have an important role to the company's businesses and profits that they compete within the industry by influencing down prices, bargaining for higher quality at all the cost of industrial profitability.

2.1.6 Further Observations on Porter's Five-Forces Model

Hax and Majluf (1991) make three observations of the Porter's five-forces model (1980) industrial analysis, namely:

1. The standard of the industry should be judged against the firm.
The performance of the firm has to be adjusted against the industry standard in order to have comprehensive understanding about the value added at the firm level as well as the competencies of its managers. This remark also emphasises that there is an existing combined effect in the industry that forced the industry in particular ways.
2. All of the forces are not equally important.
It can be fruitful to understand that not all the forces have an equal weight. For example, in examining an industrial analysis, scholars may find many factors add to unattractive position, but on the other hand the industry still presents general attractive conditions.
3. The industry dynamic nature structure.
With regards to future development, the need of identifying factors that may influence changes in the industry, for example rapid technology and innovation changes as well as enhancement in information technology structure. As a result, companies will well prepare in facing further changes and developments in the industry.

2.1.7 Strategic Implications of the Industrial Analysis

To this end, therefore examining the industrial analysis will contribute both to gaining insight understanding towards market conditions and several strategic implications, such as gaining information regarding the strength of each of the five competitive forces, the nature of the competitive pressures within each forces as well as the overall structure of competition (Thompson and Strickland, 2001).



2.2 Electronic Commerce (E-Commerce)

Before the application of electronic commerce (E-Commerce) into several areas both business and non-business area worldwide, there are at least three phases of Internet development era.

Noreða (2000) summarised the Internet history into three phases, namely:

- The Advanced Research Projects Agency Network (The ARPANET).
The ARPANET was assigned initially by the U.S Department of Defence to build a communication network in 1969. The main purpose of this communication network is to connect several communication nodes, and it grew quickly into thousands of communication nodes. This was an embryo to the Internet connection.
- The National Science Foundation Network (The NSFNET).
The NSFNET was introduced in 1986, and the main purpose of this network application is to have connection to five supercomputers at the University of Illinois and the University of Cornell.

In this phase, Tim Berners-Lee was developed the first experimental of World Wide Web (WWW) in 1989. But the application of the Internet in this phase still mainly focused on research purposes.

Afterwards, since there were many pressures from the private sectors, which acknowledged the potential of the Internet applications, therefore the NSFNET was required to expand its application into particular networks, which resulted in the development of Internet provider in the private sectors.

Finally, in 1992, the number of Internet hosts more than 1,000,000 and *Mosaic* was the first Internet browser, which was developed by National Centre for Supercomputer Applications (NCSA) at the University of Illinois. And in 1995 the structure of Internet application was exploded largely with new and larger infrastructure.

- The commercial Internet.
In 1995, the World Wide Web (WWW) was introduced globally. Since the Internet was mainly applied into business functions, therefore the government left the network and permits the commercial sector to take over its ownership. And the first application of the Internet was mainly focused on e-mail and file sharing tasks.

At the present time, millions of people are counted as Internet users and the networks and its applications have expanded through Internet Service Provider (ISP). Therefore, the development of commercial applications also takes place, such as Internet based retailing, business-to-business functions and other development of commercial purposes, which is also currently change rapidly.

Molenaar (2002) underlines that three generations of an Internet application (Table 2.2).

Table 2.2 Internet Generations

Generations	Possibilities	Users
First Generation (up to about 1993)	Data transmission and access to external sources of information.	Research, education and universities
Second generation (1993 – 2001)	<ul style="list-style-type: none"> Data facilities Communication facilities Transaction facilities Collective use of applications (among others entertainment) 	Organisations, private individuals, new service providers, such as Internet Service Providers (ISP) and application sharing services and commercial suppliers.
Third generation (2001 – present)	<ul style="list-style-type: none"> Data, speech and image transmission (convergence) Far reaching multimedia applications. <p>This application supports a multi device approach. The Internet (or the Internet structure) can be used together with a multitude of devices, from PC to TV and mobile phone (WAP and i-mode, a Japanese mobile (Internet application).</p>	An advanced infrastructure for images, sound and data. In this way all suppliers and consumers can become Internet users without being restricted by distance, location or other physical barriers.

Source: Summarized by Molenaar (2002).

In recent years, there are many definitions of electronic commerce. Kalakota and Whinston (1997) define several definitions of E-Commerce, such as:

- From a communication perspective, electronic commerce is a system, which is applied to deliver information, products or services, payments via telephone lines or any other purposes.
- From a business perspective, electronic commerce is a system, which is applied to the automation of business transactions and task flows.
- From a service perspective, electronic commerce is a system that provides the firms objectives, consumers and management to reduce the costs as well as to enhance the quality of goods and improve the service delivery.
- From an online perspective, electronic commerce is a system that has a capability to buy and sell products, and provide information on the Internet and other online services.

This research study applies the general term of electronic commerce, which is designed by Stayner and McNeill (2003). According to Stayner and McNeill (2003), electronic commerce is “the exchange of information across electronic networks, at any stage in the supply chain, within an organisation, between businesses, between businesses and consumers or between public and private sectors”.

With refer to the aforementioned E-Commerce definitions, Kosiur (1997) argues that the definition of electronic commerce is not a fixed one. The new opportunities, which occurred by rapid changes in technology as well as the enhancement and exploitation of the technology capabilities, will allow the emergence of new electronic commerce definitions.

In line with the development of e-commerce technologies, the Internet also offers several functions (Molenaar, 2003), as follows:

- Information function.

The Internet has offered a new information function from traditional media. Traditional media (e.g. newspapers, television commercials) are supply-driven, which means that the information are supplied and decided by the supplier. The receiver's are can only accept the information, and draw their own assumptions.

On the other hand, the Internet has changed that supply-driven initiatives by giving consumers opportunities to get involve in gathering and determining the information. For example, an advertisement is used to provide information for consumers, but consumers also can give their input by filling out other channel that provided by the supplier in order to gather information from consumers.

Finally, the information that provided by supplier are focused on these following provisions:

- Products and services.
- The corporation or organization
- Related information (e.g. suppliers, sales outlets and service advice).

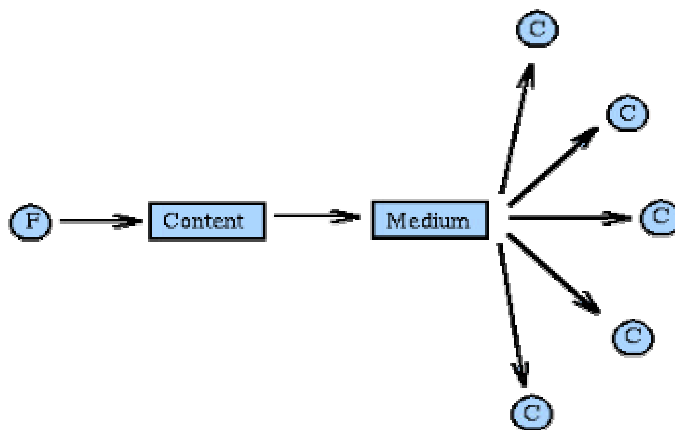
In addition, a corporate Web site may also provide information regarding to share prices, the organization information as well as the chief executive information.

- Communication function.

There are several communication tasks that offered by the Internet, such as connecting between organizations, organizations and consumers, between individuals and general communication with these following methods, namely:

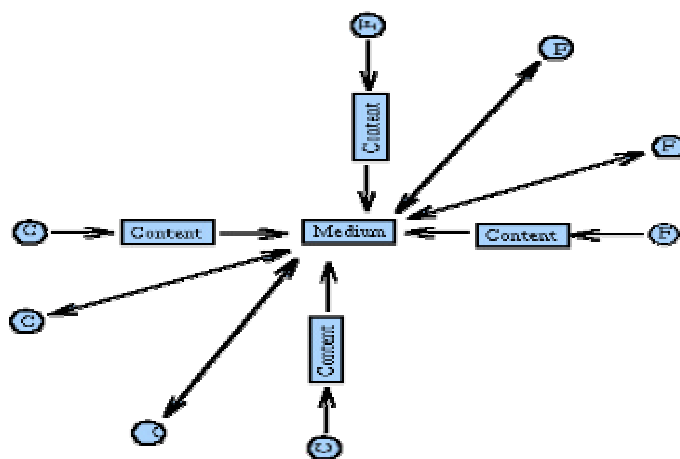
- Electronic mail.
- The Web site information responds.
- Chat room.
- Newsgroups.
- Newsletter.

According to Hoffman et al., (www.ascusc.org/jcmc/vol1/issue3/hoffman.html), companies can use the Internet as an active media to communicate its marketing purposes. The figure 2.2a below depicts how the communication flows in the traditional mass media era. In this figure, firms (denoted by F) provide the content of communication to consumers (denoted by C). In the figure 2.2b, which depicts how the communication flows in the Web marketing communication flows, the Web allows firms to change the way their doing businesses with customers by combining together publishing, real time communication broadcast and narrowcast.



Source Hoffman et.al (www.ascusc.org/jcmc/vol1/issue3/hoffman.html)

Figure 2.2a Traditional Mass Media Model of One-to-Many Marketing Communications



Source Hoffman et.al (www.ascusc.org/jcmc/vol1/issue3/hoffman.html)

Figure 2.2b New Model of Marketing Communications for the Web

- Transaction function.

In this term, the Internet transaction function has the same purpose with the traditional transaction. The function is perceived as a commercial process (e.g. electronic funds transfer). In the traditional transaction, the potential customer is

persuade by forms of sales promotion (e.g. billboards, special offers) while the potential customers which use the Internet is persuaded by suppliers that likely want its potential customers to re-visit their Web site by building an attractive Web site.

There are three provisions that are offered by the Internet for attracting potential customers to visit a particular Web site, such as:

- By search engines.
 - By click-through (e.g. banners and icons).
 - By other more popular suppliers (affiliate networks)
- Infrastructure function.
This function consists of internal and external electronic communication function, which connected different computer systems and enabled us to send data to different computers. These functions were initially introduced by Lerner and Bosack at the University of Stanford, and recently known as *Cisco*.

In line with that, National Telecommunications and Information Administration (NTIA) in Steinfield (www.ascusc.org/jcmc/vol1/issue3/genintro.html) also perform the function of electronic commerce, as follows:

- Bring products to market, (e.g., Research & Development via telecommunications)
- Match buyers with sellers (e.g., electronic malls, Electronic Funds Transfer)
- Communicate with government in pursuit of commerce (e.g., electronic tax filings)
- Deliver electronic goods (e.g., information)

2.2.1 E-Commerce Business Model

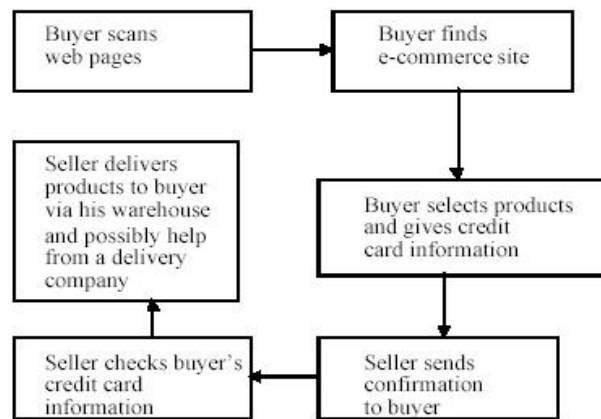
According to Korper and Ellis (2000), the industry has divided electronic commerce into two main categories, namely:

- Business-to-consumer (B2C) electronic commerce.
Business-to-consumer represents of selling products or service to consumers using Web based technologies.

According to Patton (www.cio.com/ec/edit/b2cabc.html), the major challenges for companies to run business-to-consumer electronic commerce are as follows:

- Getting browsers to buy things.
Company's objective to build a Web site is to enhance its sales volume as well as to increase the number of Web's visitors. Therefore, advancing navigation, simplifying checkout process as well as sending out e-mail to potential customers with specials offers is important in conduction business-to-consumer (B2C) electronic commerce.

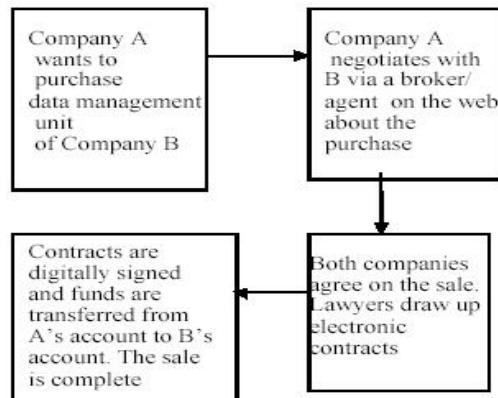
- Building the loyalty of customer.
In order to develop customer's loyalty, there are three factors that important to consider, such as:
 - Personalization focus.
 - Develop an easy-to-use customer service application.
 - Concentrate on building an easy-to-use Web site.
- Fulfillment
Companies have to aware that customer satisfaction is important to develop relationship with customers, therefore recently the focus on customer satisfaction and delivery fulfillment become more important. Successful B2C E-Commerce operations are reducing the difficulties of fulfillment tasks with increasing company's focus on investment in supply chain and logistical technologies.



Source: Thuraisingham et.al (<http://ebusiness.mit.edu>)

Figure 2.2.1a Business-to-Consumer E-Commerce

- Business-to-business (B2B) commerce.
Business-to-business represents the products and services, which purchased between corporations and integrate the systems automatically. The main goal of this automation is to automate the entire supply chain, or in other words, automation of supply chain management. This category in general involves suppliers, distributors, manufactures, stores and another party. According to Varon (www.cio.com/research/ec/edit/b2babbc.html), there are several challenges for companies in order to gain benefit in business-to-business electronic commerce, such as:
 - Having an efficient inventory management.
 - Responding immediately to customer demand immediately.
 - Launching products to market faster.
 - Reducing the cost of paperwork.
 - Controlling in rogue purchases.
 - Attaining lower prices on some supplies.



Source: Thuraisingham et.al (<http://ebusiness.mit.edu>)

Figure 2.2.1b Business -to-Business E-Commerce

Many marketing scholars argue that business-to-consumer (B2C) commerce is different to business-to-business (B2B or industrial marketing) commerce. Fern and Brown (1984) summarized several distinct bases of the thought that industrial and consumer marketing are different, as follows:

- The type of good being purchased.
- The decision-making process of the buyer.
- Product market characteristics.
- The nature of the selling firm's marketing activities.
- The nature of environmental influences.

Prior to that, Noreða (2000) underlines that in business-to-business commerce, the integration between intranets and extranet is important since it will connect the operation systems and deliver the communication and information in real time. Noreða (2000) subsequently defines that Intranet is the application of Internet technologies within an organization in order to enhance data access and transfer results than the conventional one. In line with that, an extranet is the using of the Internet protocols and the public telecommunication system to assuredly share part of company's information to customers, partners, vendors, suppliers or other businesses.

2.2.2 E-Commerce Architecture

Traditionally, ECommerce merely used Electronic Data Interchange (EDI) to interact between large companies. According to Kosiur (1997), Electronic Data Interchange is mainly use by companies that exchanges business documents (such as purchase orders, quotations, bills of lading and invoices) between companies' computer applications in a standardized form. In this network system, all companies are required to be connected to the same private network.

Having regards to that, companies are now looking for new solutions. They found that to apply EDI on their business operations would be very costly. And it is also consider that



applying EDI is very difficult since it will be very hard to provide interoperability between different industries, since each industry have their own standard for data exchange (Korper and Ellis, 2000). In recent years, the electronic commerce architecture allows company to interact using one standard communication protocol, called TC/IP (Transmission Control Protocol/Internet Protocol) and HTML (Hyper Text Markup Language) as a data format.

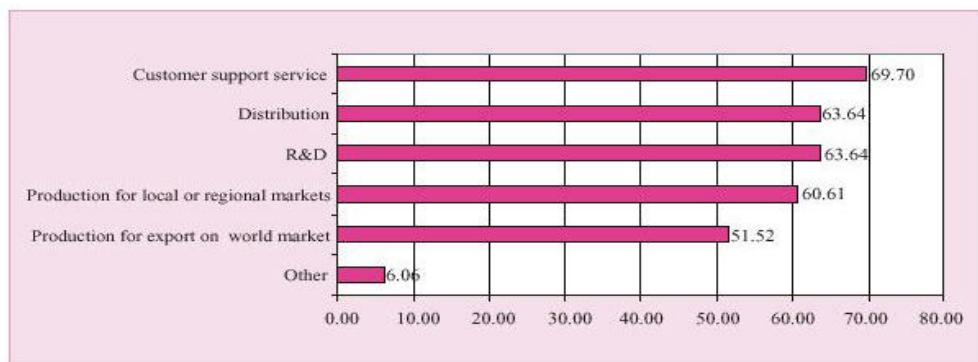
According to Korper and Ellis (2000) the elements of E-Commerce architecture are, as follows:

- **Web clients.**
Web client or browser is an application program that presents a graphical interface to view and cooperate with all the information available on the World Wide Web (WWW). Hypertext Transfer Text Protocol (HTPP) is use by Web browser to make requests of Web servers throughout the Internet. Kosiur (1997) underlines this protocol determines how an HTML (Hypertext Markup Language) is transferred from server to client on the World Wide Web (WWW). Examples of Web clients are Internet Explorer and Netscape Navigator.
- **Web server software.**
Web server software is as an intermediary between back-end systems and front-end Web clients, which function is to generate and deliver hypermedia documents based on HTML (Hypertext Markup Language). This Web server product is supported by various network operation systems, such as NT, UNIX, Novell and OS/2.
- **Commerce server software.**
Commerce server software creates an online storefront as a basis for the site. The elements of this software are storefront implementation tools, commerce server management tools and back-end integration tools. There are many functions of this commerce server software. For instance, customer-oriented storefront features include product listings, discount pricing/auction technology, question and answer listings, product comparisons, order tracking, shipment tracking and search tools.
- **Connectivity tools.**
The function of connectivity tools is as a translator to connect back-end systems to server software or front-end clients or browsers. Traditionally, Web site requires program languages such as C++ to operate the appropriate data translations but recently many commerce software providers offer tools that provide connectivity with minimal programming efforts.
- **Back-end systems.**
In order to design an E-Commerce solution, determining a type of back-end system is very important. Since back-end systems consist of relational databases, transaction-based systems, ERP-systems, EDI, third party software and proprietary systems. These elements are essential to pull data to company's site and to integrate the commerce systems.

As part of these systems, for companies that currently merely communicate through Electronic Data Interchange (EDI), E-Commerce software manufactures provide solutions, which allow the integration of existing EDI systems. For instance, Microsoft provides EDI extensions as part of its tools that sets to integrate into existing EDI based systems. Therefore, recently companies that are restricted to automating processes between their business partners that apply the EDI standards can send information, such as purchase orders directly to smaller business partners via a Web browser.

2.2.3 Strategic Implications of E-Commerce Application for Marketers

1. According to E-Commerce and Development Report 2002 that prepared by the United Nations Conference on Trade and Development (UNCTAD), the goal of many companies to conduct electronic commerce (E-Commerce) business model, either business-to-business (B2B) electronic commerce or business-to-customer (B2C) electronic is mostly to enhance their customer support service followed by distribution, research and development, production for local or regional markets as well as production for export on world market (www.unctad.org/ecommerce).



Source: E-Commerce and Development Report 2002 (www.unctad.org/ecommerce)

Figure 2.2.3a The Purpose of Company's Investment in E-Commerce

2. Companies should also aware that since many projections stated that the total of electronic commerce (B2B and B2C) would still grow in number, therefore to invest in this business is still potential (www.unctad.org/ecommerce).

Region	2002	%	2006	%	CAGR (%) 2002-2006
Developing Asia and Pacific	87.6	3.8	660.3	5.1	65.7
Latin America	7.6	0.3	100.1	0.8	90.5
Transition economies	9.2	0.4	90.2	0.7	77.0
Africa	0.5	0.0	6.9	0.1	91.1
Total developing countries	104.9	4.6	857.5	6.7	69.1
North America	1 677.3	73.1	7 469.0	58.2	45.3
Developed Europe	246.3	10.7	2 458.6	19.2	77.7
Developed Asia and Pacific	264.8	11.5	2 052.1	16.0	66.8
Total developed countries	2 188.4	95.4	11 979.7	93.3	53.0
World total	2 293.5		12 837.3		53.8

Source: E-Commerce and Development Report 2002 (www.unctad.org/ecommerce)

Figure 2.2.3b A Forecast of Total E-Commerce (B2B and B2C)

2.3 Web Marketing Mix Model

In dealing with electronic commerce, critical differences between virtual and physical commerce have encouraged marketing researchers for reassessment of the existing marketing theories. Many scholars have maintained and developed marketing principals, but merely few of them that can examine those marketing principals to explain marketing on Web appropriately (Rafiq and Ahmed. 1995, Constantinides. 2001, Hyman. 2002).

2.3.1 The Need for a New E-Commerce Theoretical Framework

With regards to the development of marketing theory, Borden (1964) has proposed the most common framework of marketing mix in 1964, subsequently popularized as the 4Ps (Product, Price, Place, Promotion) by McCarthy also in the same year as shown in Constantinides (2002). Nevertheless, with rapid changes in technology and business, the need for a new concept of marketing management is become more important. Many scholars have sought to explain the new concept of marketing management. For example, Rafiq and Ahmed (1995) have identified and added three more Ps to facilitate the complex market condition. Therefore, the three additional Ps are Process, People and Physical Place. Hyman (2002) in his effort to discover the new structural framework for marketing management finds that the value of 4Ps framework of thinking is not adequate in recent marketing era. He then summarized the main criticism from various scholars who examined the traditional 4Ps marketing mix, as follows:

1. Insufficient theoretical background.
2. Not formally integrated into perspective exchange.
3. Fails three of the five requirements for a sound classification schema.
4. Greatly focused on consumer goods, and more to production oriented rather than marketing concept.
5. Does not account for all marketing management activities.
6. Disregard strategic marketing.
7. Concentrates merely on acquisition stage of consumption.
8. Contains an increasingly catch all (i.e. atheoretically focused) promotion category.
9. Does not account for interaction between Ps or boundary-spanning topics.
10. Is not compatible with the relationship-marketing concept.

In order to address criticism over the traditional 4Ps marketing mix theory, Hyman (2002) then conceptualised the '8D' model, which explicitly accounts for social responsibility, ethics, marketing strategy and unlike a general marketing theory of unknown viability but has a greater focus on more abundant mid-range theories. He defines his '8D' theory as follows:

- Design
Translating the consumer needs and preferences into products.
- Demand
Determining the demand of customers.
- Didactics
Informing the stakeholders and targeted customers about the products.
- Distribution
Delivering company's products to customer.
- Duty
Diagnosing the rights and obligations of all stakeholders to the organisation.
- Direction
Understanding the history of the organisation and its products.
- Diary
Defining the current company's culture, vision and mission statement.
- Dialectic
Determining the marketing strategy for the company.

Constantinides (2002) also argues that the traditional marketing mix and other physical marketing perspectives are incompatible to explain virtual marketing or marketing on Web. He also argues that there are two limitations of the 4Ps in the virtual marketing, as follows:

- Implementing theory of marketing mix model in traditional market or physical marketing is adequate, definite and independent management process. But essentially the application of the Ps is the task of many departments and individuals within the organization. In brief, Constantinides (2002) then underlines that "Unlike the physical world, in the virtual market place the four elements of the mix are not detached from each other. They are heavily interrelated and for all intents and purposes jointly experienced by the online customer, being merely part of the content of the Company Customer interface, better known as Web Site".

In line with this framework of thinking, Constantinides (2002) then summarized the limitation of 4Ps in order to implement it in virtual marketing, as follows:

- “Product: The Web site is the prime online product and brand of the online organization. The customer should become aware, develop interest and be persuaded to search for the site/product before going on looking into the company’s detailed online offering.
 - Price: The majority of commercial sites function as price lists for the company’s physical product assortment. Besides that, the Web site is perceived by the online prospect and customer as a cost element (due to connectivity cost, time and opportunity cost). Although this cost will be in most cases lower than the cost of performing these activities physically, the customer will compare it with the cost of finding and doing business with other online competitors.
 - Promotion: The Web site is the promotional medium as well as the promotional content. The communicational and emotional impact of the Web site is an important part of the Web experience and a major factor in attracting and retaining online customers.
 - Place: For the majority of E-Commerce cases involving any form of online interaction/transaction, the Web site is the counter, helpdesk and sales outlet where the actual commercial or non-commercial transaction takes place. Moreover, for products delivered in digital form (music, information, software and online services) the site fulfills even the task of the physical distributor by allowing the product delivery online.”
- The 4Ps marketing mix perspective and other physical marketing perspectives are inadequate to provide a strategic tool for marketing on Web. This perspective merely as an operational tool for conventional marketing. Although implementing the 4Ps marketing mix model as a base for electronic commerce operations is not appropriate since this model will not explore the strategic aspects of marketing on Web.

Constantinides (2002) then summarized that “a way of solving the Web strategy is by integrating the online strategic planning into the operational marketing planning, this way building much more flexibility into the system. This would mean introducing an E-Commerce ‘micro-strategy’ that while in line with the corporate strategy would be flexible and easily adaptable to fast changing online conditions.”

2.3.2 The Marketing Mix Model for Marketing on Web

Constantinides (2002) determines Web Marketing Mix Model (4S) as a framework for developing and commercializing Marketing on Web or virtual marketing that is different from physical marketing. This model determines the online marketing critical element and addresses the main E-Commerce strategic, operational and organizational concerns in a comprehensive and manageable approach.

On a strategic level, his model recognizes the core strategic issues to be directed in order to achieve flexible, value adding and possibly successful E-Commerce organization. This model also underlines that online activities should be allocated in the corporate strategic objective. Finally, this model proposed the need of adaptation of the online venture into the commercial strategy of physical corporate in order to get benefit from the existing organization's strengths and competitive advantages.

On an operational level, Constantinides (2002) suggests a method for outlining reasonable and consistent Web marketing plans, as its prime goal to develop a market oriented, effective, flexible and sole Web operational planning.

Furthermore, on an organizational level, his model focuses on the issue of establishing a proper organizational, human and knowledge infrastructure for a good operation. The model discovers the need of integration of virtual business into the corporate infrastructure in order to enhance synergy between the virtual and physical business and develop the overall organization efficiency.

In addition, this Web marketing mix model also underlines that enhancing online competitiveness is needed by designing the company's synergies to the industry or third parties as well as discovers the main technological and administrative issues that will strengthen E-Commerce activities.

- Scope (S1): Strategy and Objectives
This element emphasis mainly on strategic character and decision to be made on four subjects, namely:
 - a. The online venture's strategic and operational objectives.
 - b. The definition of market and identifying potential of the market and classifying the potential competitors, visitors and customers of the site.
 - c. The level of the organization readiness for E-Commerce.
 - d. The organization's strategic role for E-Commerce.

In brief, this element will analyze these following factors, namely:

- Market Analysis (Competition basis, competitors, market potential, market forecast, and market trends).
Market analysis will examine the company's Web domain, market potential, the profiles of potential customers as well as the online strategies of competitors. There are also several factors that make this analysis is a challenging task, such as the global character of the Internet, the fast growth of online businesses and users numbers, the changing demographics of the online population as well as the limited understanding of managers with E-Commerce.

This analysis subsequently describes the market size, customer profiles, competitive situation, future trends, new market opportunities, budgeting process as well as ideas as basis for the online marketing activities.

- Potential Customers (Profiles, motivation, behavior, needs and current way of fulfilling them, priorities).

Web clients can be individuals with different buying motives, cultural backgrounds, needs, demographics, techno-graphics or lifestyle profiles from the conventional customers. Therefore, identifying the potential online customers is a difficult task since they are different from the physical customers.

- Internal Analysis (Internal resources, processes, values. Is the Web a sustaining or disruptive technology)

The internal analysis focuses on the firm's resources, processes and values in order to identify the degree of company readiness to incorporate E-Commerce and examines the possible effects on the organizational value chain. And based on this analysis, identify the appropriate strategic role of online activity by refine the strategic objective is necessary.

The result of this internal analysis will be a decision whether to implement E-Commerce or not implement ECommerce. The consideration of this decision is based on the real costs of the online operation, that not only in financial terms but also in terms of disruption of the established physical processes and infrastructures. In order to overcome those problems, the possible solution is by separating the Web operations from the existing corporate body.

- Strategic Role of the Web Activities: (Generic types: Informational, educational, relational, promotional, and transactional).

The strategic role describes the online activity tasks and reflected on the firm's online model. There are several examples of strategic role such as informational, educational, service oriented, promotional, relational and transactional. The actual strategic role can be based on a combination of these strategic roles.

The strategic roles will have important effects for the site identity, positioning, style and atmosphere, content, structure, functionality, organizational or technical infrastructure or other elements. The aim of the Web operators have to make their Web site different and unique form competitors by create a Web Unique Selling Proposition, such as

- Hard to be copied by competitors.
- Ability to produce win-win solutions with the existing business partners.
- Flexible, easy to adapt the changes in market conditions and external developments.

- Site (S2): Web Experience

The Web site is the main source for customers to get information about the company's products and other attributes. Therefore, the Web site is the most

important communication factor of E-Commerce. The main mission of the Web site is to attract visitors, build contact with the online target markets and describe the online organization. Therefore, the E-Marketer should aware about the aspect of site findability, site speed, average user's skills, available bandwidth and other technical considerations.

Generally, companies built a Web site with several purposes. Some of the most common site goals and tasks are, as follows:

- a. Communicating and advertising the E-business image, labels and products/services.
- b. Presenting the information about the company to customers and stakeholders.
- c. Communicating the company activities effectively.
- d. Providing customer service and helpdesk functionality in order to improve the customer loyalty and retention.
- e. Providing sales leads and customer or market data.
- f. Providing interactive online communication between the company and customers.
- g. Providing online payment as well as direct sales.

In brief, this element will analyze these following factors, namely:

- Customer oriented content. Consists of important questions:
 - What does the customer expect in the site?
Domain name, content, design, layout, atmosphere, aesthetic and web site positioning and the classic 4Ps
 - Why the customer will make use of the site?
Simplicity, functionality, speed, findability, searchability, navigation, interactivity and customization.
 - What motivates customers to come back?
- Synergy (S3): Integration
This element is to integrate the process of the organization's objectives. This element also develops synergy either between virtual organizations and physical organization or between virtual organization and third parties. Therefore, this analysis is suitable for organizations with both physical and virtual operations.

In brief, this element will analyze the following factors, as follows:

- Front Office Integration (Integration with the physical Marketing Strategy and Marketing Activities).

The front office integration is emphasizes the need to assess and determine ways that facilitate the full integration of the Web operation into the company's communication plan, corporate style and the existing physical retail channels. This integration also has an objective to share information potential customers as well as existing customers about the future Web activities and outline the benefits of doing business online.

It is clear that an integration and synergy between the online and the physical communication plan is to utilize existing promotional activities and to capitalize customer goodwill, less time consuming time and in order to have an effective promotional campaigns. These synergies also expected can be operated until long term, since a mature on line operation is able to support the corporate marketing strategy as a low-cost structure source of customer and market data and as a retail outlet as well as an efficient communication instrument.

In order to have a good successful integration, a Web marketer has to minimize the channel conflicts that may occur by recognizing possible mutual benefits and translating win-win situations for both virtual business and traditional distribution channel.

- Back Office Integration (Integration of the Web site with Organizational processes, Legacy systems and Databases).

The back office integration analyzes these factors, namely:

- E-Commerce physical support activities integration (customer service, order processing, fulfillment and reverse logistics) into the organizational processes
The online firm requires an integration of existing support operations in order to provide the fulfillment and back-office supported that expected by Web customers. Back office efficiency makes the Web operation is attractive and customer data, queries and online orders will flow in.

In order to examine the physical value chain and its ability to support the back-office need, there are many evaluation should be done such as utilizing the previous analysis of scope that will show possible weaknesses and underline the changes needed in order to upgrade the existing back-office into higher quality level.

Therefore, constant monitoring will require efficient auditing mechanisms, benchmarking and close monitoring of customer behavior by detecting errors and conducting corrective action.

- The legacy integration

Legacy integration will integrate the online activities into the existing Information Infrastructure including Management Information System (MIS),

Efficient Resource Planning (ERP) Systems, databases and data warehouses. Therefore, these will lead to an efficient utilization of the company IT such as cost advantages, improved decision making and more efficient information management.

- The integration between the online operation and the company's value system. This integration is important in case of transactional substances, and the integration should cover all external participants such as intermediaries, suppliers of raw materials, distribution and logistics and other direct or indirect affected parties.

Therefore, transactional sites will require Efficient Customer Response (ECR) strategy, synchronized production, JIT and efficient inventory management. In addition, Intranet as well as Extranet will replace EDI and EFT system as functional platforms that will reduce costs in order to achieve higher efficiency.

- Third Party Integration (Create networks of partners who will assist the commercial, logistic and other site activities).
In order to be succeeded and to strengthen the competitive position of virtual organization, companies also require having cooperation with Internet partners outside the organization and their value systems. In addition, this network should also be complementary to the traditional promotional activities.

Potential associates for this integration are, namely:

- Search engines and Web directories
This aim of this integration is to increase the coverage of the online organization into the Web market-place therefore potential customers can easily access the site.
 - Affiliate networks
This objective of these networks is for online promotion by place a banner or a link of company's site to other sites.
 - Online advertising
The aim of this advertising is to attract potential customers to visit the Company's site by placing interactive advertisements (banners, buttons and hyperlinks)
- System (S4) (Technology, Technical Requirements and Web Site Administration).
This element discovers both the technological issues and the issues of site's services that need to be delivered by the management of E-Commerce.

The core System-related decisions are consists of several core areas, namely:

- Web site administration, maintenance and service.
The basic requirements are availability of technical and service personnel on a 24-hour, 7 days a week.

- Web server hosting and selection of the Internet Service Provider (ISP)
For small and medium-size organization, external hosting is a common option.
- Site construction
Large initial investments are required in order to build an above average Web site. The key success factors of a Web site are presentation quality, user friendliness, easy navigation, browser independence and speed.
- Content management.
The main purposes of this area are the frequency of reviewing and updating the content of the site in order to response the changes of market conditions, customers needs, competitive strategies, market trends and the decentralization of the Web site updating procedures. To cope with that, trainings and other empowerment methods for several different departments in managing the site contents in order to avoid bureaucratic procedures and the contents quality are required.

In brief, the main areas that covered by this element are, as follows: software, hardware, communication protocols, content management, system service, site administration, hosting decisions, payment systems as well as performance analysis.

2.3.3 Strategic Implications of Web Marketing Mix Model for Marketers

According to Constantinides (2002), Web Marketing Mix Model delivers framework that allocate the Web marketers examining the strategic and operational concerns of the Internet marketing in an efficient ways by a new integrated online marketing approach.

2.4 Summary

This chapter has discussed the theoretical review of industrial analysis, E-Commerce and The 4S Web Marketing Mix Model proposed by Constantinides (2002). Those theoretical frameworks will be implemented in examining the Dutch food industry analysis as well as case study analysis on Chapter 4.



CHAPTER III

CAMPINA BV

3.1 Brief History

In 1979, DMV Campina dairy cooperative was founded by dairy farmers in the Netherlands. The objective to establish this cooperative was essentially to counter the market power of large companies and traders, and also as a media for dairy farmers to unite their interests by getting involved in the processing and sales of their milk and dairy products.

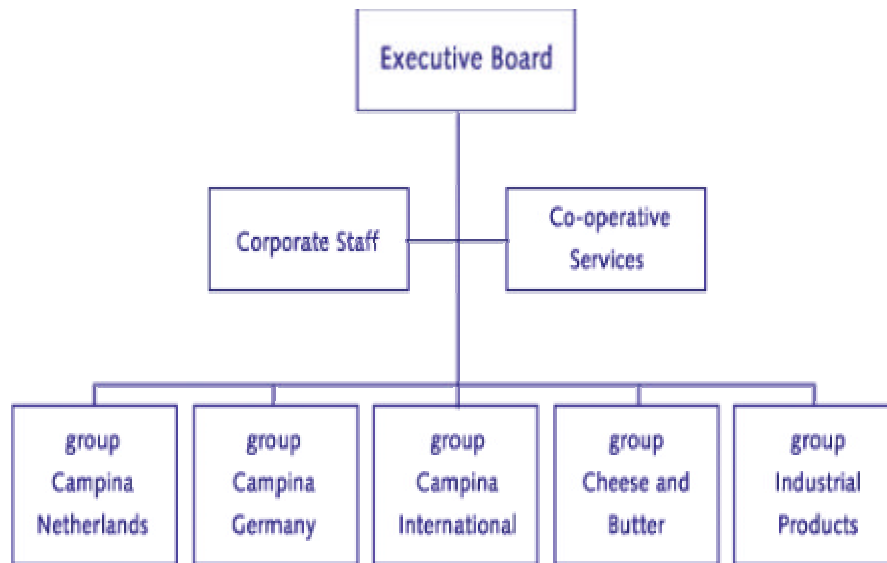
DMV Campina dairy cooperative has a long history of mergers and takeovers. Eventually, DMV Campina was merged to form operating cooperatives ventures regionally and as a result DMV Campina cooperative was operating in the south of the Netherlands and the Melkunie Holland cooperative in the west. Campina BV has known as a household name for more than 20 years. Table 3.1 below gives a brief summary of Campina BV's history.

Table 3.1. Summary of Campina BV's History

Years	Remarks
1979	Founding of DMV Campina dairy cooperative
1980	Founding of Melkunie Holland dairy cooperative
1989	Merger of Campina and Melkunie
1991	Acquisition of Comelco NV in Belgium
1993	Acquisition of a majority share in Südmilch AG of Stuttgart (Germany)
1997	<ul style="list-style-type: none">• Acquisition of Bacha and Tojo in Poland• Joint venture with Milchwerke Köln/Wuppertal (MKW) in Germany (Tuffi Campina)• Takeover Menken liquid milk activities (The Netherlands)• Takeover De Vereeninging (organic dairy) in The Netherlands
1998	<ul style="list-style-type: none">• Takeover of Menken Dairy Food and Menken Polderland (The Netherlands)• Takeover of Kutel in Essen (Germany)• Takeover of Nupron (ingredients) in Nörten-Hardenberg (Germany)
1999	Emzett Berlin merges with Tuffi Campina into Tuffi Campina emzett
2000	The Stupino (Russia) yoghurt plant is opened
2001	<ul style="list-style-type: none">• Admission of De Verbroederen cooperative (Belgium) and Milchwerke Köln/Wuppertal (MKW, Germany) to Campina Melkunie• Joint venture DMV International and Farmland National Beef Packing (USA)• After a long period of international expansion, the strategic focus is on internal uniformity and efficiency• Campina Melkunie changes its name in Campina and Campina brand is introduced internationally
2002	Tuffi Campina emzett and Campina GmbH (former Südmilch) merge into the new Campina GmbH
2003	Takeover of Molkerei H. Strotmann (desserts) in Güttersloh (Germany)

Source: www.campina.com

3.2 Organization Chart



Source: www.campina.com

Figure 3.2 Organization Chart of Campina

The members of the Executive board and the staff services, such as finance and administration personnel and organization are located in Campina head quarters in Zaltbommel (The Netherlands).

The Campina Netherlands group is responsible for producing fresh daily and long-life liquid milk products and desserts for the Dutch Market. There are two important brands produced namely: Campina and Mona. This group also consists of two divisions, as follows: the Campina Foodservice division (out-of-home market, cream products), the Ecomel unit (organic dairy) and Zutrans unit (logistics of fresh products).

The Campina Germany group is responsible for a wide range of dairy products for daily consumption in Germany, which has a production plants in Germany and sales offices in Germany and Austria. They are also consider as one of the leading dairy companies in Germany and a national market leader in desserts and branded daily fresh milk, which known with Campina and Landiebe brand names. In this area, Campina is also a sender brand for Puddis (desserts), the regional brand Mark Brandenburg (Berlijn/Brandenburg), Südmilch (Baden-Württemberg) and Tuffi (Nordhein-Westfalen).

The Campina International group, which consists of Campina Belgium division, is responsible for the production and sales of consumer products (milks, drinks and desserts) outside the Netherlands and Germany.

The Cheese and Butter group is responsible for producing cheese and butter, and developing brand concepts (such as Campina, Milner, Volmer, Passendale and Campina Buttergold). This group consists of two divisions namely: the Campina Holland Cheese

division and the Campina Buttergold division. These plants are located in the Netherlands, Germany and Belgium.

The Industrial Products group consists of three divisions namely DMV International (responsible in producing ingredients for the food and pharmaceutical industries all over the world.), Creamy Creation (cream liqueurs) and Nutrifeed (feed for young animals). The production plants are based in the Netherlands, Germany, Belgium, and the United States with sales offices spread across the Netherlands, the United States, the UK, China, Denmark, Japan and Argentina.

3.3 Product Overview

In order to meet the customer's need, Campina has launched several products. The product overview is presented on Table 3.3.

Table 3.3 Summary of Campina's Product

Products	Remarks
Butter	<ul style="list-style-type: none"> Mainly produced in Belgium, Germany and in The Netherlands Consists of various brand names, as follows: <ul style="list-style-type: none"> Campina Buttergold in Germany and Austria Campina Lendliebe for premium butter in Germany Campina Botergoud in the Netherlands Campina Beurre d'or in Belgium Campina Breda for export to many foreign countries
Caseinate	<ul style="list-style-type: none"> DMV International is the main producer of Caseinate Caseinate is a healthy protein source in meal, which the objective is as a natural stabilizer of fat and water.
Cheese	<ul style="list-style-type: none"> Mainly produced in Belgium, Germany and in The Netherlands Consists of various brand names, namely: <ul style="list-style-type: none"> Campina Volmer Milner Landliebe Arina Le Berger
Cream liqueurs	<ul style="list-style-type: none"> Mainly produced in the Netherlands
Desserts	<ul style="list-style-type: none"> Mainly produced in Germany, Poland and The Netherlands Consists of several brand names, namely: <ul style="list-style-type: none"> Campina Puddis and Landliebe in Germany Mona and Campina Vla in the Netherlands Campina Smakija in Poland
Drinks	<ul style="list-style-type: none"> Mainly produced in Belgium, Germany and The Netherlands Consists of several products, for example: <ul style="list-style-type: none"> The health drinks and breakfast drinks (Goedemorgen in the Netherlands and NutriStart in Germany) Dairy fruit drinks (the Netherlands and Belgium)
Extra Healthy Dairy Products	<ul style="list-style-type: none"> Mainly produced by DMV International (The Netherlands) Consists of several products, for example: <ul style="list-style-type: none"> Vifit (Campina's extra healthy dairy brand in the Netherlands) Campina Optiwell in Germany (For maximum favors, minimum calories).
Lactoferrine	<ul style="list-style-type: none"> Mainly produced by DMV International (The Netherlands) Lactoferrine is produced to support the immune system of babies
Lactose	<ul style="list-style-type: none"> Mainly produced by DMV International (The Netherlands) Consists of three brand names, namely: <ul style="list-style-type: none"> Pharmatose Respitose Esprion

Liquid Milk	<ul style="list-style-type: none"> Mainly produced in Belgium, Germany and The Netherlands Available under several brand names, namely: Campina (Belgium, Germany and The Netherlands) Joyvalle (Belgium) Landliebe (Germany) In order to improve its milk production, Campina also has a Campina School Milk in Germany and The Netherlands
Organic	<ul style="list-style-type: none"> Produced to the ecological dairy segment Consists of several products, for example: De Groene Koe for supermarkets Zuiver Zuivel for health food stores Campina also has Campina Ecological School in Germany
Protein Hydrolysates	<ul style="list-style-type: none"> Mainly produced by DMV International, which supplies for producers of baby food, sport nutrition, clinical nutrition and diet foods.
Quark	<ul style="list-style-type: none"> Quark is a soft curd cheese product Marketed in several brand names, namely: Mona (in The Netherlands) Campina Bradenburg Herb Quark and Landliebe (in Germany) Campina Twarogi (in Poland)
Vla	<ul style="list-style-type: none"> Mainly produced by DMV International Consists of several different flavors, namely: Vanila Double Vla Fruitvla Slaagroomvla
Youghurts	<ul style="list-style-type: none"> Mainly produced in Germany, The Netherlands, Poland and Russia Consists of several brand names, as follows: Campina (for International) Campina Fruttis (Central and Eastern Europe) Landliebe (Germany) Mona (The Netherlands)
Young Animal Feed	<ul style="list-style-type: none"> Mainly produced by Nutrifeed in The Netherlands The products are created to improve animal's digestion, health and growth

Source: www.campina.com

3.4 Mission and Strategy

The mission of Campina BV is to add value to milk through:

- “Being an entrepreneurial cooperative
 - A continuous increase of the controllable part of the milk price for *Campina's* member-farmers.
 - A financial involvement of *Campina BV's* member, which will enable the company to reach its long-term objective of profitable growth.
 - A culture, which balances professionalism with a down to earth mentality.
 - A natural caring for the sustainable values of *Campina's* nature in an environmental responsibility.

-
- Making a difference in the dairy-chain
 - A constant innovation in dairy related concepts, products, technologies and processes.
 - A drive for improvement through our knowledge in all disciplines.
 - Focus on consumer needs
 - An increase in market shares through brands, products and communication, which will link the consumer needs with the dairy nature.
 - A unique relation with *Campina's* customers by satisfying the consumers in *Campina's* mutual interest
 - Care for people
 - An atmosphere of integrity and involvement in which individuals are able to develop their talents to the limits of their skills and ambitions.
 - A relation with *Campina's* member-farmers and milk suppliers, which makes them a valuable part in the total chain of responsible dairy production.”
(www.campina.com)

The strategy of Campina BV is to add value to milk for consumers, customers and ultimately for its member dairy farmers and the owners of Campina. With regards to its strategy, Campina BV also put more concern on milk price movements.

In the future, the price of milk will depend on three factors:

- The world dairy market
The demand of dairy products as well as output developments in other key dairy regions (such as the United States, Australia, and New Zealand) is very important factors in deciding the price of dairy products in the world. These also have significant impacts on international economic, monetary and political developments.
- Political decision-making in the European Union
The size of European Union countries will continue to expand. As a result, the price of dairy products will decrease. The new World Trade Organization (WTO) will also have an influence on the reduction of dairy product prices, since there was a reform of European dairy policy, in which price reductions are hardly compensated for dairy farmers that would lead Campina dealing with such issues, for example: sustainability in the chain, and financing the cooperative.

-
- Campina's performance
Campina's performance can influence the price of dairy products in the following ways:
 - Focus on scale advantages
Campina's objective to add value to milk for its member dairy farmers (owners), customers and consumers is reflected a higher product price than other dairy product prices. Campina BV is two cooperatives were merged to form Campina BV, and recently Campina BV is also actively acquiring companies that focus on consumer products in Europe and dairy ingredients worldwide. In 2001 Campina BV defined its strategic priorities, which will be discussed later in this chapter.
 - Building strong brands
Building strong brands are very important for Campina to build emotional relationships with consumers, and its products. This is because Campina has to maintain its position in the industry, its relation with its loyal customers and also in order to maintain its image as innovative brands.

As a result, Campina gives more attention on a limited number of strong brands, namely:

- Campina, the international brand for daily dairy
- Landliebe, the premium dairy brand in Germany
- Mona, the dairy treats in the Netherlands

Moreover, Campina also makes further investment in respect of its product advertising, promotion, production and research and development.

- Targeted innovation leads to growth
Innovation is also critical factors for Campina's products, the company maintains its innovation development continually. Therefore, fast and effective innovation is the main goal for its innovation strategy.

Due to that targeted innovation, Campina gives more attention to three innovation centers, namely:

- Liquid milk products
- Cheese and butter
- Ingredients

The purpose of these innovation centers is to make optimal use of knowledge and skills and the focus on market segments, since these will ensure that Campina has meet consumer needs.

- Quality throughout the dairy chain
Campina also cares about the increasing demand of quality and food safety. With regards to that, Campina implements transparent systems which will ensure its product quality and product safety. These transparent systems monitor and assess the quality of every milk delivery.

There are also systems that aim to ensure quality at dairy farms, namely:

- The quality milk chain (Keten Kwaliteit Melk (KKM), the Netherlands)
- Integrated Quality Care for Milk (Integrale Kwaliteitszorg Melk (IKM), Belgium)
- The milk quality management system (QM Milch, Germany)

In order to guarantee that Campina is a quality food producer, Campina's production companies are ISO certified. These quality standards are achieved through Campina applying two new standards, namely:

- Hazard analysis of critical control points (HACCP), ISO 9000
- The British retail consortium (BRC) standards

- A healthy living environment
Campina integrates its environmental care into the daily work of dairy farmers and Campina's employees. Since there are many regulations regarding environmental matters, such as laws on water, the use of mineral and in order to ensure its all its production processes are secure, all Campina production companies place greater concern on processing water and also have had their environmental plans. In short, Campina has a corporate social responsibility for compliance with the aforementioned regulations.
- Sustainability throughout the chain
Campina is actively involved in opinion making on the future of dairy farming. They define their commitment to drive environmental sustainability in many projects as "*a permanent responsibility for nature within the social care for a sustainable existence*" (www.campina.com).

For dairy food producers, these sustainability issues are very important, since they are only allowed to manufacture products that are environmental friendly. The implication is that such products make a contribution to animal welfare and waste management as well as following the rules on food safety.

In order to show its real commitment to a healthy environment, Campina has several initiatives in place, namely:

- Being responsible in its use of water and energy
- Reducing the number of transport kilometers that Campina covers in the Netherlands complying with the Long Term Energy Efficient Covenant
- Developing its corporate environmental plans
- Improving its packaging efficiency

3.5 Strategic Priorities

As aforementioned, in order to enhance its performance in the market and gain advantages in scales, in 2001 Campina BV defined its strategic priorities, as follows:

- International harmonization
The best example for international harmonization is by using the international Campina brand for their products. This example was influenced by their motivation to have scale advantages in brand policy, culture, working methods and organizational structure.
In line with that, Campina is also actively acquiring companies that focus on consumer products in Europe and dairy ingredients worldwide. As a result, the scale advantages were also utilized in production.
- Market innovation and efficiency
Targeted and successful innovation is the main goal of this strategic priority, and an efficient organization is the top reason to continued existence. This is due to the facts that the price competition in the dairy food industry is become more intense.

In line with that, the great demand of high quality standards but also high costs of labor and other means of productions especially in Western Europe are become a big obstacle for food producers.

- Successful growth
Campina depends the company's growth on both from its acquiring companies initiatives and through its organic growth.

In line with its mission to add value to milk, the main goal of Campina for the successful growth is to become a geographical market leadership with dairy drinks in Western Europe, desserts in Europe and a leading position in the world market with specific dairy ingredients.

3.6 Summary

This chapter has looked at Campina BV such as its history, organization chart, products, mission and strategy as well as strategic priorities. This overview will contribute to gain a better understanding of the strategic analysis of E-Commerce applications within Campina BV.



CHAPTER IV

DUTCH FOOD INDUSTRY ANALYSIS

The aim of this chapter is to give insight and deeper understanding about the Dutch food industry and its implications to Dutch agricultural economy. The analysis mainly examined by *Five Competitive Forces*, which is proposed by Porter (1980) and based on Agricultural Economic Report 2003 of the Netherlands (www.lei.wag-ur.nl) as well as *Statistisch Jaaroverzicht 2002* (www.prodzuivel.nl). Therefore, this analysis consists of six main analyses and, namely:

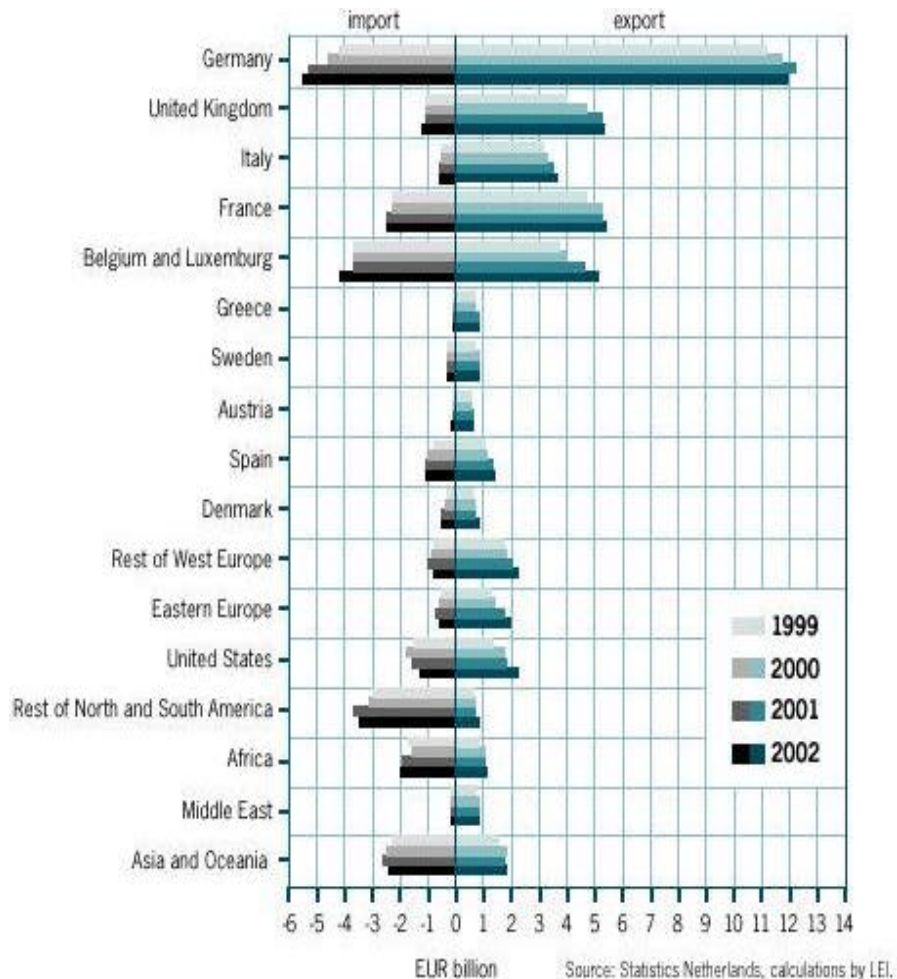
1. Overview of Dutch agricultural economy.
2. The rivalry among existing firms.
3. The potential entry of new entrants.
4. Threat of substitute products or services.
5. Bargaining power of suppliers.
6. Bargaining power of buyers.
7. Summary

4.1 Overview of Dutch Agricultural Economy

In recent years, the growth of the world economy has been slowing down. This is due to ambiguous condition on International financial markets and lack of consumer trust. The Netherlands as a part of the world economy society also has experienced a decline in its economic growth. In 2002 the economic growth of The Netherlands had fallen to only 0.3 percent with an inflation rate 3.3 percent and unemployment rose to 4.3 percent. For 2003, economic growth for the Netherlands is not expected. Within the Dutch agricultural sector, in 2002 the Dutch agricultural products and foods export was growing by 3.5 percent and import was fall by 0.5 percent. This trade surplus was contributed to 20 billion Euro trade balances.

The greatest contributions to the agricultural export are Ornamental crop products, followed by meat and dairy products. As shown in Figure 4.1, in 1999-2002 international trade in agricultural products has increased worldwide. As regards to the Netherlands, EU countries are still the most important destination for its agricultural export. Germany has been the main destination for Dutch agricultural exports in the same period, even though its share for 2003 has decreased compared to 2001 (Figure 4.1).

The prices of import and export of Dutch agricultural products were on average comparable to the previous year. Similarly the prices for meat, dairy and eggs were considerably lower for both export and import by Dutch food firms.



Source: Agricultural Economic Report 2003 of the Netherlands (www.lei.wag-ur.nl)

Figure 4.1 Origin and Destination of Dutch Agricultural Trade, 1999-2002

With regards to dairy products, the number of milk and dairy products exports both by quantities and values generally have been fallen (See Table 4.1.1a and Table 4.1.1b).

Table 4.1.1a Exports of Milk and Dairy Products by Quantities in the Netherlands (x 1.000 kg)

	1995	2000	2001	2002 ¹⁾
totaal kaas	540.234	500.330	488.359	479.408
• goudse	244.755	219.821	221.378	228.445
• cheddar	3.572	9.685	12.361	8.635
• edammer	113.605	77.754	70.000	68.399
• korstloze	24.131	14.207	11.150	7.487
• overige soorten	154.171	178.863	173.470	166.442
 boter	 127.709	 121.336	 117.094	 121.878
boterolie	61.134	49.124	49.121	52.999
 totaal gecondenseerde melk	 306.271	 224.138	 235.337	 223.022
• met suiker	89.403	60.175	51.163	47.136
• zonder suiker	216.868	163.963	184.174	175.886
 totaal melkpoeder	 360.317	 277.139	 226.301	 231.007
• niet-mager	244.303	172.958	155.208	169.323
• mager	116.014	104.181	71.093	61.684
 ander melkpoeder ²⁾	 15.875	 9.515	 8.460	 8.365
 room	 70.145	 59.097	 63.133	 58.214
volle melk	105.256	175.694	211.089	327.352
afgeroomde melk	15.836	12.714	46.250	64.851
andere verse melk	14.342	29.762	15.869	24.991
dranken uit of met melk	69.427	39.545	62.640	56.128
 lactose en melksuikerstroop	 80.897	 119.369	 113.033	 104.037
wei- en weiprodukten	113.533	195.655	180.529	163.670

1) voorlopig

2) yoghurt en kamemelk in poedervorm

Source: Statistisch Jaaroverzicht 2002 (www.prodzuivel.nl)

Table 4.1.1b Exports of Milk and Dairy Products by Value in the Netherlands (x ^a 1.000)

	1995	2000	2001	2002 ²⁾
totaal kaas	1.759.785	1.773.965	1.897.169	1.786.453
▪ goudse	752.807	740.494	831.575	805.377
▪ cheddar	8.172	35.823	44.760	24.346
▪ edammer	317.502	267.673	263.492	243.828
▪ korstloze	55.352	42.111	38.770	25.674
▪ overige soorten	625.952	687.864	718.572	687.228
boter	339.091	342.580	377.210	322.738
boterolie	143.625	118.210	122.736	123.330
totaal gecondenseerde melk	330.980	263.290	317.001	316.679
▪ met suiker	99.869	72.192	70.415	69.684
▪ zonder suiker	231.111	191.098	246.586	246.995
totaal melkpoeder	671.472	603.092	628.081	517.169
niet-mager	475.800	393.941	462.383	405.918
mager	195.672	209.151	165.698	111.251
ander melkpoeder ³⁾	21.976	17.596	17.560	14.477
room	118.316	105.037	112.942	99.676
volle melk	36.474	61.126	81.244	113.935
afgeroomde melk	3.205	3.065	10.209	13.442
andere verse melk	4.907	6.862	4.062	4.247
dranken uit of met melk	54.772	77.952	142.423	140.510
lactose en melksuikerstroop	44.697	86.449	91.521	90.273
wei- en weiprodukten	91.897	149.384	147.857	138.583
totaal generaal	3.641.564	3.602.943	3.950.015	3.681.512
totale waarde van de uitvoer van landbouwproducten⁴⁾	30.583.879	43.454.000	45.310.000	46.794.000
waarde van de totale Nederlandse uitvoer⁴⁾	143.500.000	231.900.000	242.715.000	234.590.000

1) exclusief restitutie
 2) voorlopig
 3) yoghurt en karnemelk in poedervorm
 4) bron: LEI

Source: Statistisch Jaaroverzicht 2002 (www.produivel.nl)

Similarly, in general the number of milk and dairy products imports both by quantities and values also have been fallen (see Table 4.1.2a and 4.1.2b).

Table 4.1.2a Imports of Milk and Dairy Products by Quantities in the Netherlands (x 1.000 kg)

	1995	2000	2001	2002 ¹⁾
kaas	88.893	122.323	152.965	135.292
boter	53.222	48.796	92.364	97.342
boterolie	25.274	17.260	10.595	6.732
totaal gecondenseerde melk	143.412	233.061	194.403	188.029
• met suiker	19.295	12.364	8.712	9.691
• zonder suiker	124.117	220.697	185.691	178.338
totaal melkpoeder	430.982	334.531	270.502	315.893
• niet-mager	136.760	108.917	88.849	100.008
• mager	294.222	225.614	181.653	215.885
ander melkpoeder ²⁾	26.783	25.731	11.902	15.793
room	21.444	30.220	20.250	21.187
volle melk	302.343	162.482	186.936	174.021
afgeroomde melk	215.376	103.487	55.017	87.125
andere verse melk	24.997	34.412	37.316	23.248
dranken uit of met melk	114.168	119.854	126.374	110.684
lactose en melksuikerstroop	8.121	17.158	20.654	15.166
wei- en weiprodukten	515.427	601.365	613.745	509.683

bron: CBS

1) voorlopig

2) yoghurt en karnemelk in poedervorm

Source: Statistisch Jaaroverzicht 2002 (www.produivel.nl)

Table 4.1.1b Imports of Milk and Dairy Products by Value in the Netherlands (x ^a 1.000)

	1995	2000	2001	2002 ¹⁾
kaas	297.159	296.510	408.354	350.607
boter	159.017	137.030	223.297	204.653
boterolie	90.531	41.561	23.877	11.935
totaal gecondenseerde melk	139.418	222.121	183.249	162.284
• met suiker	24.506	18.702	14.376	14.901
• zonder suiker	114.912	203.419	168.873	147.383
totaal melkpoeder	954.416	772.490	626.456	622.675
• niet-mager	355.658	283.248	241.543	245.080
• mager	598.758	489.242	384.913	377.595
ander melkpoeder ²⁾	50.709	31.029	20.449	25.488
room	35.126	47.764	31.601	33.817
volle melk	109.551	79.857	79.563	74.988
afgeroomde melk	47.024	25.629	14.315	19.860
andere verse melk	10.736	14.203	17.424	13.498
dranken uit of met melk	67.609	80.599	81.235	71.109
lactose en melksuikerstroop	3.961	7.906	10.497	10.363
wei- en weiprodukten	156.207	204.951	244.069	196.789
totaal generaal	2.121.558	1.961.650	1.966.863	1.798.577
totale waarde van de invoer van landbouwproducten³⁾	17.868.504	25.082.000	27.088.000	26.891.000
waarde van de totale Nederlandse invoer³⁾	129.400.000	216.100.000	220.075.000	204.491.000

1) voorlopig
2) yoghurt en karnemelk in poedervorm
3) bron: LEI

Source: Statistisch Jaaroverzicht 2002 (www.prodzuivel.nl)

Therefore, despite that contribution of both exports and imports are decreases, but having regards to the facts that aforementioned, the dairy food industry still makes a distinct impact on the Dutch economy.

4.2 The Rivalry among Existing Firms

Despite the facts that the number of dairy firms has fallen, there are still many players in the Dutch food industry. According to Dutch Dairy Board, until 2002 the number of enterprises and factories, which divided into cooperatives and non-cooperatives, is 41 and 18, and in total the number of Dutch food manufacturers is 59. The number of dairy cooperatives has fallen from 62 cooperatives in 1995. As regards non-cooperatives, the number of dairy non-cooperatives still remains the same as in 1995, which were 18. But in 2000, dairy non-cooperatives have been counted as 20 non-cooperatives, therefore; table 4.2.1 and Figure 4.2.1 below depicts the number of dairy non-cooperatives has also decreased, and the location of those enterprises is spread across the Netherlands (Table 4.2.1 and Figure 4.2.1).

Table 4.2.1 The Number of Dairy Food Enterprises and Factories in the Netherlands

	1995	2000	2001	2002
ondernemingen	19	15	15	12
totaal fabrieken	80	66	63	59
• coöperatief	62	46	44	41
• niet-coöperatief	18	20	19	18

Source: Statistich Jaaroverzicht 2002 (www.produivel.nl)



Source: Statistich Javaroverzicht 2002 (www.produivel.nl)

Figure 4.2.1 Location of Dairy Factories in the Netherlands

As aforementioned, Porter (1980) underlines common forms of competition that can enhance the degree of rivalry among existing firms. Those forms are, as follows:

- Price
- Product differentiation
- Product demand

In terms of price, Porter (1980) defines that the high degree of rivalry will result in the price wars between industry players, which mean that the price of a product will become lower. In the Netherlands, the average consumer prices are remaining higher for every dairy product items (see Table 4.2.2). But Moloney (2002) argue that these higher prices are not because the profitability of this industry is high, but this is due to the changes in European macro economic situation. In line with that van den Hoven (2002), who is the

Group President of Campina International, also underlines that the margin of Dairy food industry is become lower.

Moloney, (2002) then explain about changes in European macro economic condition. For example, under the GATT agreement of 1995, the export subsidies of European countries will be condensed. In addition, the current WTO Doha that suggests about trade liberalism will make dairy manufacturers have to adapt quickly because this will further accelerate Europe's decline for dairy traded products in the international market. Therefore, the high prices of dairy products mainly influenced by changes in European macro economic condition that make the margin of these dairy products become lower.

Table 4.2.2 Average Consumer Prices of Dairy Products in the Netherlands ^(a)

	1995	2000	2001	2002
goudse kaas (1 kg)				
• jong, verpakt	5,02	5,00	5,28	5,59
• jong, onverpakt	5,38	5,57	6,03	6,94
• jongbelegen, verpakt	5,74	5,80	6,15	5,94
• jongbelegen, onverpakt	6,11	6,33	6,82	6,94
• belegen, onverpakt	6,52	7,02	7,32	7,60
• oud, onverpakt	8,11	8,56	9,01	9,43
• jonge komijnkaas	6,09	6,28	6,67	6,87
smeerkaas (100 g)	0,59	0,59	0,65	0,70
boter (250 g)	1,04	1,11	1,13	1,11
volle melk (1 l)				
• gepasteuriseerd	0,65	0,69	0,76	0,81
• gesteriliseerd	0,58	0,58	0,62	0,66
halfvolle melk (1 l)				
• gepasteuriseerd	0,54	0,56	0,64	0,69
• gesteriliseerd	0,47	0,47	0,51	0,56
karnemelk (1 l)	0,54	0,51	0,59	0,62
koffiemelk (1 l)				
• volle	1,08	0,99	1,02	1,08
• halfvolle	0,81	0,78	0,81	0,83
slagroom				
gepasteuriseerd (250 ml)	0,79	0,71	0,71	0,72
yoghurt (1 l)				
• volle	0,78	0,74	0,81	0,86
• magere	0,59	0,56	0,64	0,68
vanillevla, volle (1 l)	0,86	0,89	0,98	1,02
chocoladevla, volle (1 l)	1,08	1,11	1,19	1,27
chocolademelk, volle (1 l)	1,14	1,08	1,10	1,13

bron: CBS

Source: Statistisch Javaroverzicht 2002 (www.prodzuivel.nl)



In terms of product differentiation, van den Hoven (2002) argues that in recent years, product differentiation for dairy food producers is become more important in order to foster sales volume in dairy food industry. As a Group President at Campina International, van den Hoven (2002) then adds that one of Campina's strategies is by implementing product differentiation strategy, especially for Campina's strategy in its brand management.

Having regards to that, Hax and Majluf (1991) underline that product differentiation is one of the most critical factors in the competitive rivalry determination. They subsequently explain that no firms can declare that their products are superior to other competitors, because most of customers buying decision based on price. Therefore product differentiation should be undertaken in order to break away from this competitive condition and Hax and Majluf (1991) also underline that product differentiation would also identify opportunities for competitive advantage.

In terms of product demand, the total consumption of milk and dairy products in the Netherlands generally has decreased. For example, total consumption for milk and dairy products in 2002 has fallen to 1.952.856 compare to 2.040.218 in 1995 and 2.002.506 in 2000, except in 2001 the total consumption for milk and dairy products is 1.928.803 (see Table 4.2.3). As aforementioned in Chapter 2, Porter (1980) defines that the degree of rivalry is usually stronger because of the slow growth of products demand. Based on data shown in Table 4.2.3, therefore the degree of competition in the Dutch food industry becomes stronger.

Table 4.2.3 Total and per Capita Human Consumption of Milk and Dairy Products in the Netherlands

		per hoofd in kg		per hoofd in kg		per hoofd in kg		per hoofd in kg
consumptie- melk en con- sumptiemelk- producten ³⁾	2.040.218	132,0	2.002.506	125,8	1.928.803	120,2	1.952.856	120,9
room	36.341	2,4	34.822	2,2	35.562	2,2	30.429	1,9
boter ⁴⁾	53.310	3,4	52.476	3,3	53.160	3,3	52.400	3,2
kaas ⁵⁾	219.393	14,2	230.896	14,5	234.359	14,6	235.700	14,6
kwark	29.849	1,9	45.037	2,8	47.548	3,0	48.845	3,0
geconden- seerde melk	103.587	6,7	104.605	6,6	104.250	6,5	102.897	6,4
• waarvan koffiemelk	101.574	6,6	98.022	6,2	97.615	6,1	93.402	5,8
gemiddeld aantal inwoners (x 1.000)	15.458		15.924		16.045		16.149	

1) inclusief import
2) voorlopig
3) inclusief voor 2002 50.637 ton achterhouding op de boerderij voor consumptie
4) inclusief tot boter omgerekend boterconcentraat en botervet (indicatief)
5) indicatief

Source: Statistisch Javaroverzicht 2002 (www.prodzuivel.nl)

To this end, based on facts that in the Netherlands the profitability of Dutch food industry is low because the effects of changes in European macro economic condition, and since product differentiation become more important as well as the decreasing number of dairy food product demand, therefore I conclude that the degree of rivalry in the Dutch food industry is high.

4.3 The Potential Entry of New Entrants

Based on Porter's five forces model, Hax and Majluf (1991) underline that one of the most important concept and strategies are the concept of relationship between entry barriers and industry profitability. As aforementioned in chapter two, Porter (1980) defines that entry barriers are the result of various factors, namely economies of scale, cost and resource disadvantages independent of size, learning and experience curve effects, inability to match the technology and specialized know-how of firms already in

the industry, brand preferences and customer loyalty, capital requirements, access to distribution channels, regulatory policies, tariffs and international trade restrictions as well as switching costs.

In this study research, some of those factors can be identified and subsequently analyzed based on Porter's five forces concept. According to Moloney (2002), new entrants will face some challenges in order to get into dairy food industry, such the changing of macro economic situation in Europe as well as changing market forces in the dairy industry. As aforementioned, the changes of European macro economic situation have made either existing dairy firms or potential entrants run their business operations since the subsidies in this industry have been reduced, and also because of WTO Doha round accelerated Europe's decline in the international market for traded dairy products. Moloney (2002) subsequently explain that the changes in market forces will make dairy food firms should adapt quickly in order to exist in the market. Those changes are, namely:
















- Globalization trends
Both customers and competitors are now globalize, therefore the key consideration is based on firm's research and development department, since it will study the market opportunities that may contribute to an important input for dairy firms.
- Growth of food service
The food service firms in Europe have grown 30%. Food service holds key brands in running their business operations. For example, McDonalds that spread worldwide including in Europe. This foodservice operator depends on a core supplier to deliver customized products in major market such as EU. This will require large-scale firms, efficient operations, innovation capacity and efficient management.
- Changing consumer demographics
Changing consumer demographics mean changing lifestyles and changing behaviors. Basically these changes offer huge opportunities. Therefore, these require firms to continue innovation to meet these changes and to be success in market place.
- Growth of functional foods
Recently, consumers now are more educated and concern about the food they consume. These growing concerns have lead to the development of nutritious foods worldwide in terms of mineral, vitamin, fiber as well as more medical benefits such as low fat milk.

In the Netherlands, government set rules to guarantee safe food. The food should be tested before introduce to the market. In brief, Dutch government monitors food production chain as well as animal health. On a production chain level, the government mapping all the links in the production chain and setting conditions for the entire production process as well as the entire production process of production chain. On an animal health level, the government monitors the safety of food of animal origin as well as the health of the Dutch livestock herd. Since a healthy animal

contributes to a healthy business and to the safety animal origin production (www.minlv.nl).

In line with that, O'Dwyer et al. (2002) also highlights that dairy firms in Europe also face a high inflation rate, therefore the operational costs are increase such as labour cost, energy, contractor and other costs. These will also make all profits made from dairy business will have reduce purchasing power for further business operations. Based on EU regulations, Dutch dairy firms also face that the quota for milk production that in the Netherlands has exceed 0.2 percent in year 2002 (see Table 4.3), therefore it will be very hard for new entrants to compete because generally EU countries also has exceed their milk production quota, therefore Schefer (2003) underlines that dairy products had a very difficult situation, while implementation of bilateral agreement with the EU gives firms the opportunity to utilize foreign markets, similarly they are under a great pressure to increase their price competitiveness by adjusting their structures and processes.

Table 4.3 Milk Quota and Milk Production per EU Member State

(x miljoen kg)		2001/'02	+/- %	2002/'03	+/- %
nederland		11.001,3	+ 0,5	10.994,7	+ 0,2
belgië		3.188,2	+ 0,2	3.266,1	--
denemarken		4.454,7	+ 0,1	4.454,8	--
duitsland		27.769,2	+ 0,5	27.762,2	--
finland		2.398,3	+ 2,9	2.398,5	--
frankrijk		23.844,3	- 0,1	23.895,1	--
griekenland		699,6	- 0,2	699,7	--
ierland		5.386,2	+ 0,2	5.388,9	--
italië		10.316,5	+ 3,7	10.314,1	--
luxemburg		268,6	+ 1,3	268,7	--
oostenrijk		2.599,1	+ 3,7	2.646,5	--
portugal		1.863,2	- 3,1	1.860,4	--
spanje		6.035,6	- 2,4	6.065,8	--
verenigd koninkrijk		14.437,5	- 0,5	14.384,5	--
zweden		3.300,0	- 0,2	3.300,0	--

bron: Europese Commissie
 1) exclusief quotum voor directe levering aan consumenten
 - - niet bekend

Source: Statistisch Javaroverzicht 2002 (www.prodzuivel.nl)

In addition, Reuters (2000) underlines that the European food industry is remains to become more competitive and stagnant. Therefore, this situation makes food firms or potential entrants should develop products that driven by a variety of socio-economic and lifestyles.

Reuters (2000) then formulates *the mega trends* concept (see Figure 4.3) in order to meet the customer demands and an intense competition. These concepts are, as follows:

- Convenience

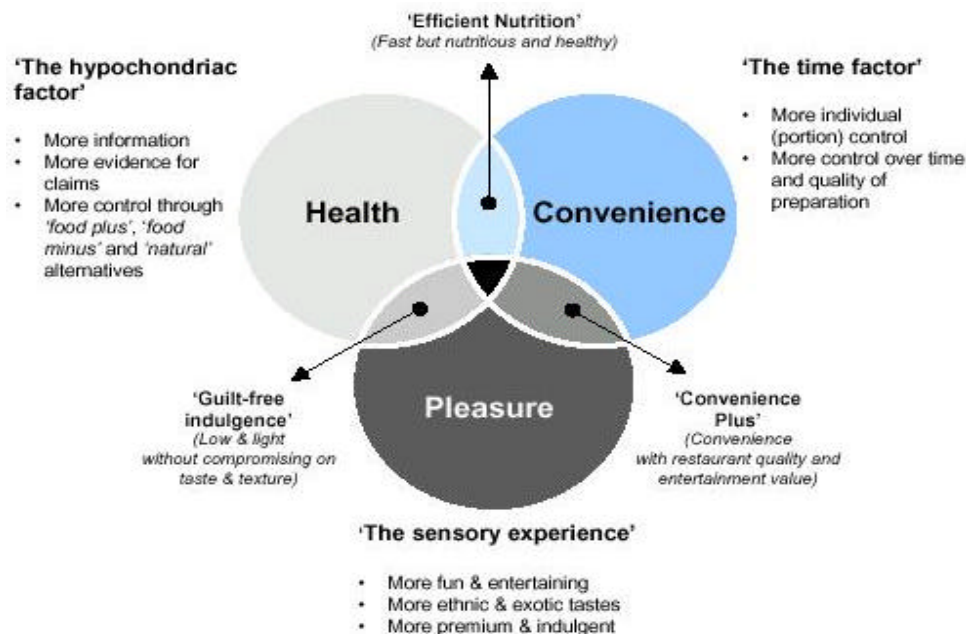
This trend is driven by the increasing number of population that desires to consume food and drinks that will involve more less expert people, more individual, less formal but more frequent and occur in more different locations. These will also drive demand for more individual (portion) control regarding to more control over speed and quality of preparation.

- Health

This trend is driven by the growing concern about health, food safety, the environment and food physical appearance. These will also drive demand for 'food plus', 'food minus' and natural products. Therefore, better nutrient control, more user-friendly information and more evidence that support health claims are needed.

- Pleasure

This trend is driven by an increasing demand from unique customers that need for reward, comfort and guilt-remedy products and intense to limit leisure occasions. Therefore, the demand of an ethnic and exotic, fun and entertaining, premium and indulgent products is increase.



Source: Future Innovations in Food and Drinks (www.MarketResearch.com)

Figure 4.3 The Food and Drinks Mega-Trends

Prior to those challenges and opportunities aforementioned, therefore those both challenges and opportunities such as globalisation trends, growth of food service, changing consumer demographics and growth of functional food as well as regulations that set by EU and Dutch government will create a high barrier for new entrants to enter this dairy food industry, especially in the Netherlands.

4.4 Threat of Substitute Products or Services

According to Hax and Majluf (1991), substitute products or services can make an impact in different ways the attractiveness of an industry. The impacts depend on a number of factors such as availability of close substitute products or services, user's switching costs, aggressiveness of substitutes' producers and price value trade-offs between the substitutes and original products.

According to Unwin (1999), types of substitute and analogue food for dairy food are divided into several categories. Therefore, the types are, namely:

- Soya milk and chocolate (a substitute of milk and milk products)
- Soya cheese (a substitute of cheese)
- Pudding topping (a substitute of creams)
- Soya yogurt (a substitute of other milk products)

Unwin (1999) subsequently underlines that several of these products are difficult to decide that they are closely substituted of dairy food products. In line with that, as aforementioned, the consumers of milk and other milk products are still high. Therefore, based on those facts and findings as well as challenges, I conclude that the competitive degree of substitute products or services of dairy products is medium.

4.5 Bargaining Power of Suppliers

According to Dobson (1999), the main supplier of Dairy manufacturers is raw milk suppliers and other supporting and related industries (see Table 4.5.1, and Table 4.5.2).

Table 4.5.1 Number of Dairy Farms, Classified According the Number of Dairy Cows per Farm

	1-29	%	30-69	%	70->	%	Totaal
1995	11.355	30,3	19.823	52,9	6.287	16,8	37.465
2000	6.855	23,3	16.231	55,1	6.381	21,6	29.467
2001	5.759	20,6	14.523	52,0	7.644	27,4	27.926
2002	5.183	19,6	13.824	52,4	7.389	28,0	26.396

bron: CBS Landbouwtelling

Source: Statistisch Javaroeverzicht 2002 (www.produivel.nl)

Table 4.5.2 Liquid Milk and Milk Products Supplied for Consumption by Dairy Factories in The Netherlands and Quantities Consumed per Capita

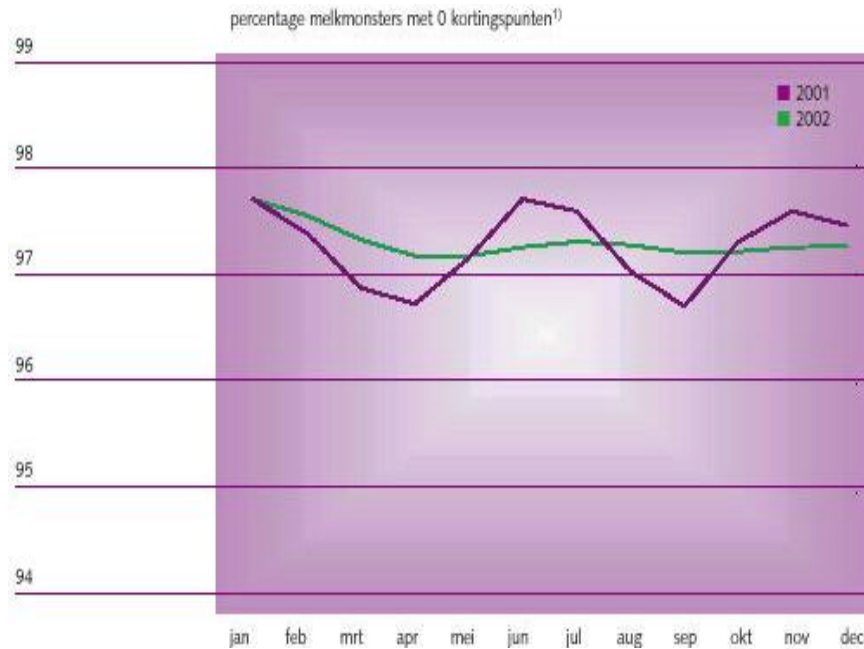
		In kg		In kg		In kg		In kg
totaal room	34.129	2,2	26.245	1,6	24.454	1,5	18.710	1,2
• meer dan 29% vet	29.006	1,9	22.558	1,4	21.663	1,4	14.658	0,9
• 6 t/m 29% vet	5.123	0,3	3.687	0,2	2.790	0,2	4.053	0,3
totaal volle melk	201.559	13,0	139.754	8,8	124.301	7,7	117.813	7,3
• gepasteuriseerd	172.598	11,1	129.441	8,1	117.412	7,3	105.339	6,5
• gesteriliseerd	28.961	1,9	10.312	0,6	6.889	0,4	12.474	0,8
totaal halfvolle melk	682.720	44,2	680.865	42,8	665.919	41,5	666.866	41,3
• gepasteuriseerd	642.088	41,6	659.343	41,4	644.119	40,1	632.684	39,2
• gesteriliseerd	40.632	2,6	21.522	1,3	21.799	1,4	34.182	2,1
totaal magere melk	17.525	1,1	22.806	1,4	22.934	1,4	23.232	1,4
• gepasteuriseerd	15.186	1,0	10.264	0,6	9.987	0,6	7.367	0,5
• gesteriliseerd	2.339	0,1	12.542	0,8	12.946	0,8	15.865	1,0
karemelk	148.253	9,6	134.001	8,4	126.273	7,9	116.454	7,2
chocolademelk	55.408	3,6	67.135	4,2	63.626	4,0	65.819	4,1
en andere dranken								
yoghurt zonder toevoegingen	205.508	13,3	175.016	11,0	167.466	10,4	156.846	9,7
yoghurt met toevoegingen	108.338	7,0	144.131	9,1	153.814	9,6	184.044	11,4
pap en vla (incl. karemelksepap)	209.756	13,6	192.775	12,1	167.750	10,5	168.798	10,5
totaal room, melk en de daaruit bereide producten	1.663.196	107,6	1.582.727	99,4	1.516.535	94,5	1.318.581	94,0

1) exclusief import (zie tabel 27)
2) voorlopig
3) inclusief UHT (Ultra High Temperature)
4) incl. substitutie naar
5) inclusief drinkyoghurt
6) alleen yoghurtstandaard

Source: Statistisch Javaroverzicht 2002 (www.produivel.nl)

With regards to the aforementioned on Table 4.5.1 and Table 4.5.2, it describes that the number of raw materials required in order producing milk and milk products has fallen. Therefore it can strengthen the competitive pressure of suppliers.

In contrary, Figure 4.5.1 below depicts quality of bulk milk supplied to dairy factories, and it is clear that from 2001 to 2002, the quality has been reduced. Therefore on the other hand this can strengthen the manufacture's position in the industry.



Source: Statistisch Javaroverzicht 2002 (www.produzuivel.nl)

Figure 4.5 Quality of Bulk Milk Supplied to Dairy Factories in the Netherlands

Porter (1980) argues that suppliers have a power to influence the terms and conditions of supply, and this is also due to the importance of these raw materials are critical for dairy manufacturers, therefore suppliers should have a greater bargaining power than dairy manufacturers. Nevertheless, based on findings and facts that the quality of bulk milk supplied to dairy factories in the Netherlands has been reduced as well as other aforementioned challenges, therefore I conclude that the degree of bargaining power of suppliers is medium.

4.6 Bargaining Power of Buyers

Kumar (1997) defines that there is a revolution in retailing. This revolution is a shift from market driven to market driving, from fragmentation to consolidation. By way of internal growth as well as mergers and acquisitions, a massive consolidation has taken place in the industry (Table 4.6.1).

Having regards to this revolution, Kumar (1997) argues that this consolidation has an impact for both retailers and manufacturers. For retailers, they become more difficult to succeed if they cannot purchase goods from manufacturers efficiently or invest large capital in technology as well as do many mergers and acquisitions in order to maintain their competitive position. For example, Royal Ahold of the Netherlands has been counted for one of the most active firms that acquire other firms. Similarly, for

manufacturers, this consolidation will influence to their business operations, for example this consolidation will force manufacturers to conduct partnerships with retailers in a particular way that may also influence sales volume of manufacturers.

Table 4.6.1 The Revolution in Retailing

The revolution in retailing		
From Market Driven		To Market Driving
Fragmented		Consolidated
Local		Global
Traditional stores		Innovative formats
Market place		Market space
Merchants		Retail brand managers
Unsophisticated		Technology intensive
Owner-operated		Systems driven
Vulnerable		Powerful

Source: Kumar (1997)

In addition, Seth and Randall (2001) subsequently underlines about the future challenges of retail industry. For manufacturers the implications of changes in retail industry will force them to create many channels to market, offer more innovative products as well as conducting either a local or custom promotions (See Table 4.6.2).

Table 4.6.2 Future Challenges of Retail Industry

Today's Trends	Consumer Attitudes:2005	Business Implications:2005
<u>Demographic trends</u> <ul style="list-style-type: none"> Ageing United States Greater diversity Income polarity More working woman Non-traditional households <u>Lifestyle trends</u> <ul style="list-style-type: none"> Time poverty Health consciousness Networked consumers Employee scarcity 	<ul style="list-style-type: none"> Shopping seen as a chore More choice in meal solutions Increased food diversity More "wellness" and health-enhancing foods Continued growth in away from home meals More choices, less time 	<u>For retailers</u> <ul style="list-style-type: none"> Increased consumer power Convenience focus Low price on replenishment items Tight labor market <u>For manufacturers</u> <ul style="list-style-type: none"> Many channels to market More innovative products Local, custom promotions <u>For wholesalers</u> <ul style="list-style-type: none"> Low cost distribution Assist retailers with perimeter development Provide manufacturers with better information and execution

Source: Seth and Randall (2001)

Having regards to those aforementioned either opportunities or challenges, therefore I conclude that the degree of bargaining power of buyer is high.



4.7 Summary

This chapter has looked at Dutch agricultural economic condition in which dairy food products have contributed added value into Dutch agricultural economy. Having regards to the aforementioned discussion, this analysis indicates that within Dutch agricultural economy the industry of Dairy food has been consolidated.

CHAPTER V

CASE STUDY ANALYSIS

The aim of this chapter is to explore the application of E-Commerce on the Web Marketing Mix at Campina BV, supported by Web Marketing Mix Model proposed by Constantinides (2002). The interview questions were divided into general and the 4S Web Marketing Mix. Findings from part one or the general questions are incorporated into the 4S Web Marketing Mix findings. This chapter is set out as follows:

1. Scope (S1)
2. Site (S2)
3. Synergy (S3)
4. System (S4)
5. Summary

5.1. Scope (S1)

The main purpose of this section is to examine the strategy and objectives of a particular company doing business electronically, or in other words, Web marketing. Based on interview questions, Table 5.1.1 depicts the findings of Campina's Scope (S1) analysis..

Table 5.1.1 Research Findings of Scope (S2)

Scope (S1) Characteristics	Research Findings
Objectives	<ul style="list-style-type: none"> ▪ Enhancing profitability. ▪ Improving company image. ▪ An important additional channel for communication and business transactions.
Market Analysis	<ul style="list-style-type: none"> ▪ Identify their (Campina) existing and potential customers based on geographical concern and types of customers (consumers or professional buyers).
Internal Analysis	<ul style="list-style-type: none"> ▪ Campina managed its Web operation by outsourcing as well as in house maintenance.
Strategic Role	<ul style="list-style-type: none"> ▪ Mainly informational/promotional followed by transactional purposes.

The research findings indicate that the main purpose of Campina's Web site is to enhance its profitability, improve company image as well as an important channel for communication and business transaction. In other words, Campina's Web site is mainly used for informational or promotional tasks followed by transactional tasks.

Having regards to Campina's objectives as set out in Table 5.5.1, Wilson and Abel (2001) define several considerations of companies using the Internet as a marketing tool. Table 5.1.2 depicts those motives.

Table 5.1.2 Internet Applications as a Marketing Tool

Business Enhancement	Revenue Enhancement
Communication <ul style="list-style-type: none"> • E-mail • Usenet groups • Listserv groups 	E-Commerce <ul style="list-style-type: none"> • Interactive Web site allows customer to view, purchase and pay for products (e.g., Borders)
Market research <ul style="list-style-type: none"> • Search for secondary data • Gather primary data 	<ul style="list-style-type: none"> • Majority of revenues generated from Internet
Brand building <ul style="list-style-type: none"> • Build a Website (brochure-ware) 	<ul style="list-style-type: none"> • Full integration of order taking with supply chain. (e.g., e-bay, Covisint)

Source: Wilson and Abel (2001) p.86

From the abovementioned table, Wilson and Abel (2001) summarize that companies deploy the Internet for two main purposes namely business enhancement and revenue enhancement. The research study indicates that Campina's main purpose in doing business electronically is to enhance its communication and business transactions. That are corresponds with the findings of Abel and Wilson (2001).

Campina also uses its Web site to identify its existing and potential customers based on customer demographics. Campina uses the Internet to find out what its customer's need as well as what its customers are doing anywhere. The Internet is an effective communication tools, and thus it can be said that communication is the 'lifeblood' of many businesses (Wilson and Abel, 2002).

Moreover, Campina is also implementing its Web site to promote its products, enhance its business transactions and to improve its company's image. From table 5.1.1 abovementioned, generation of profit is a key to Campina. Perry and Bodkin (2002) argue that the goal of promotional activities on the Web is similar to operating the physical market place. Thus the goals remain the same, namely to create customer's awareness, communicate benefits, promote trial and drive customers into action.

E-Commerce is the implementation of electronic media such as the Internet to transact business (Wilson and Abel, 2002). A firm that is implementing E-Commerce to sell products, services and information will set-up an interactive Web site for its users.



At the same time, the site will deliver information about the company and type of products that they sell, and by definition the company uses a Web presence as a brand building as well as improving company's image (Wilson and Abel, 2002).

Constantinides (2002) concludes that the strategic priority of a company's online activities will describe the online activity tasks and reflect the online model of that particular company. The content of Campina's Web site is primarily focused on supporting its promotional and transactional purposes. Many links are created in order to connect customers to other Campina's sites. With regards to using its Web site as a way of enhancing its revenues or profit, Dewan et al., (2002) argue that will take time. The main issue is how to deal with pricing of goods in relation to volume of sales.

5.2 Site (S2)

This study is primarily focused on Campina's customer oriented content. Table 5.2 depicts the research findings of Campina's Site (S2) analysis.

Table 5.2.1 Research Findings of Site (S2)

Site (S2) Characteristics	Research Findings
<ul style="list-style-type: none"> Customer Oriented Content 	<ul style="list-style-type: none"> Campina has 32 Web sites to communicate its products or services. For example: www.mona.nl Campina use its Web site to provide company information as well as stake holder information. The functions of Campina Web site are mainly for communication, FAQ and contact as well as vacancy applications. The technical considerations to build Campina Web site are bandwidth (low bandwidth), 800x640 picture resolution and best view with Internet Explorer 4.0. In order to motivate their customers to revisit their Web site, Campina provides its Web site with relevant information

Basically, the Internet as a media has several characteristics (Butler and Peppard, 1998). Those characteristics are, as follows:

- As a media for information distribution and dissemination. Unlike traditional media, Internet can be tailored to the customer's need either by collecting information from them or through the use of tracking technologies.
- As a media for communicating with customers or potential customers. For this purpose, the interactive nature of the Internet has an important role. Therefore it is essential for E-Marketers to build an active dialogue with customers. By using such as e-mail, online forum or other communication types.
- As a media to conduct transactions, orders, invoices and other business documents that can be sent electronically, and payment can be made using credit card.
- As a distribution media, Internet allows particular products such as software and other digital products to be delivered without geographical boundaries to customers.

The research findings indicate that Campina uses its Web site as a media to communicate their products or services to their existing and potential customers on its Web site, in

order that Campina provides information which is relevant for those purposes. For example Campina has 32 Web sites which communicate its products or services, and supporting those purposes by put several tools such as FAQ and contact address on its Web site.

Korper and Ellis (2000) argue that providing that aforementioned tools are beneficial to identify existing and potential customers need. This identification is important in order to motivate them to revisit our Web site. Butler and Peppard (1998) subsequently underline that in order to motivate company's existing and potential customers as well as their business partners, examining their behavior as well as purchasing decision is critical. In line with that Donaton (1995) defines that the commercial success of a company's Web depends in element on sufficient information on market demand and consumer needs.

Similarly, Aaker (2001) also stresses that identifying consumer behavior and purchasing decision is essential since unmet needs can represent threats to firms that will enable competitors to disrupt their position in the industry. Table 5.2.2 below depicts a model to determine consumer behavior and purchasing decision in the market space.

Table 5.2.2 Model of Consumer Behavior and Purchasing Decision in the Market Space

Consumer issues	Consumer Behavior and Purchasing Decision	Market Space
<ul style="list-style-type: none"> Need awareness Problem definition Problem articulation 	Problem Recognition	<ul style="list-style-type: none"> Databases to know customer better Anticipate needs/wants Response to problems
<ul style="list-style-type: none"> Sources of information Accessibility of information Reliability of information 	Information Search	<ul style="list-style-type: none"> Advertising in the marketplace media Links form other sites Quality of information 'Push' technologies
<ul style="list-style-type: none"> Comprehensiveness of information Trust and confidence in information Trial and sampling 	Evaluation of Alternatives	<ul style="list-style-type: none"> Virtual communities and user groups endorsements Simulation and testing opportunities
<ul style="list-style-type: none"> Negotiation process Transaction process 	Choice/Purchase	<ul style="list-style-type: none"> Ease of ordering and delivery payment, security, conditions
<ul style="list-style-type: none"> After sales support Relationship support 	Post-Purchase Behavior	<ul style="list-style-type: none"> Online support Relationship building with consumer, user groups and virtual communities

Adapted from Butler and Peppard (1998) p.605

Implementing ECommerce has offers opportunities for Campina to gain more benefit from their Web site presence. The Hermes survey of Web users found that collecting customer's purchase-related information is the most preferred Web activities (Hoffman et al., 1995). Therefore, identifying Campina's existing and potential customer's behavior and purchasing decision would allow Campina to maintain its Web site as its initial purposes which are enhancing Campina's profitability.

This research findings also indicated that Campina maintain its Web site in order to motivates customers to revisit their Web site. Bringing back customers to revisit firm's Web site is mostly depends on the attractiveness of that Web site to their target segment (Briscoe-Smith and Merchant, 2001). Subsequently, Briscoe-Smith and Merchant (2001) define several variables in designing an attractive Web site, namely:

- Easy to read.
- Easy to find info.
- Timeliness of data.
- Quality of language.
- Easy to navigate.
- Explain of site usage.
- Personalizable.
- High-quality experience.
- Feel at ease.
- Fun to use.
- Fast.
- Security conscious.
- Visually appealing.
- Offer free products.

This research study also does not examine the attractiveness of Campina's Web site, because of data and time limitation. In order to have deeper understanding of this integration, further research is required that also cover a whole system elements within Campina's Web site, for example data of Web site visitors are required in order to examine the attractiveness of Campina's Web site and other related issues.

5.3 Synergy (S3)

The purpose of this section is to examine the integration of Campina's objectives process, which represents the synergy analysis between Campina as a virtual organization and as a physical organization and also between Campina's and third parties.

Based on interview questions, Table 5.3 below depicts the research finding of Campina's Synergy (S1) analysis.

Table 5.3 Research Findings of Synergy (S3)

Synergy (S3) Characteristics	Research Findings
<ul style="list-style-type: none"> The Front Office Integration 	<ul style="list-style-type: none"> Campina integrates its Web site with its communication/advertising plan as well as distribution strategy. Campina initially implements E-Commerce tools since 15 year ago (1988) through EDI and Videotex, and in 1996 through Web site.
<ul style="list-style-type: none"> The Back Office Integration 	<ul style="list-style-type: none"> Campina provides its Web site with these following purposes: customer service, order processing (retailers only) . Campina defines the relation between its Web activities and values system is as an additional channel tools to communicate and business transactions.
<ul style="list-style-type: none"> Third Parties Integration 	<ul style="list-style-type: none"> In order to promote their Web site, Campina provide its Web site on Search engines and Web directories. Campina mainly put other links to other Campina's sites.

As Campina's Web objectives are for informational and transactional purposes, Clarke III and Flaherty (2002) argues that the Web will deliver informational function by providing informational technology information, market place resource links, forums and job postings. Web transactional functions mean provide manufacturers and distributors with a simple and effective way to sell or buy excess or surplus inventories in order to make a profitable online exchange with customers.



Having regards to synergy, Berthon et al., (2002 p.6) defines integration on Web as “the process of directed synergistic coupling of organizations in such a manner to achieve significant added value”. This integration can be achieved through operational effectiveness, employing just-in-time (JIT) techniques to supervise flows of materials and information between the parties involved.

Research findings indicated that the application of Internet application at Campina, contributed to the reduction of cost, especially administrative costs. But this research does not examine the significant of administrative cost reduction compare to overall Campina’s operational costs. In line with that Berthon et al., (2002) subsequently add that the Web will makes impact on reducing transaction cost and concurrently the size of firms, reducing barriers to entry and intermediation or the gap between buyers and sellers. In brief, integration should deliver added value and reduced costs to the firm.

As Campina’s Web objectives are for informational and transactional purposes, Clarke III and Flaherty (2002) argues that the Web will deliver informational function by providing informational technology information, market place resource links, forums and job postings. Similarly, Web transactional functions mean provide manufacturers and distributors with a simple and effective way to sell or buy excess or surplus inventories in order to make a profitable online exchange with customers.

Mc Donald and Wilson (1999) highlight some practical examples of Internet application as an integrated communication tool, namely:

- Company can use the Internet as a direct response tool for customers to respond company’s products offering and promotion campaign.
- Company also can use the Internet as a callback facility in order to give feedback to customer’s response.
- The company’s Web site provides a function that can support customer’s buying decision even if the purchase does not occur via the Web site. For example by providing customers with phone number on their Web site that can be use by customers to ring a company’s representative in the call-center to place their order.
- The integration between one company’s databases to other company’s database, for example customer order information delivered into one of company’s databases can be accessed via staff in the call center.
- The company’s Web site can also be used to support customer service, for example by providing frequently ask questions (FAQ) items.

In order to deliver informational as well as transactional functions, Campina provides its Web site with customer service, order processing (for retailers only), put Campina’s Web site on Search engines as well as Web directories and put other links to other Campina’s Web site (e.g., www.mona.nl). According to Korper and Ellis (2000), search engines and



Web directories are cost effective since they record and list our Web site information. Therefore, customers or potential customers can search for information from search engines and Web directories that we locate our site.

To this end, this study does not examine the effectiveness of Campina's Web site integration due to time and data limitations. But from this case I can conclude that Campina provides its Web site with various kinds of tools as their efforts to achieve their Web strategic goal, which is applying Internet applications for informational or promotional purposes followed by transactional purposes.

5.4 System (S4)

The purpose of this section is to examine the technological and service issue of Campina's Web site. Based on interview question, Table 5.4 below depicts the research findings of Campina's System (S4) analysis.

Table 5.4 Research Findings of System (S4)

System (S4) Characteristics	Research Findings
<ul style="list-style-type: none"> Technology, Technical Requirements and Web Site Administration 	<ul style="list-style-type: none"> Campina maintains its Web site by Web content management system and managed hosting environment 7 days per week and 24 hours per day. Campina use external hosting for host their E-Commerce solutions on their Web site. Campina update its Web site content in order to keep the Site content attractive and to inform their customer about their new product news. In order to operate its Web site, Campina trains their employee with Web Content Management course. There are several departments which responsible for the data and content appearing on Campina's web site such as Communication Department for general information, Marketing Department for product news and Human Resource Department for vacancies In order to provide security for its Web site, several actions are taking into account, such as firewalls, password protection, and other security systems. Transactional procedures that appear on Campina's Web site are: administration and ordering.

Korper and Ellis (2000) define that Web content management is an element that allow Companies to manage their Web content, including new products, the design of pages and additional categories. Web content management is very critical to the success of Web sites. Because it will determine the impression of customers to the company's site.

Recognizing the importance of this factor, Campina maintains its Web site with Web content management system and monitor all of functions 7 days per week and 24 hours per day. For those monitoring as well as updating purposes, Campina gives the responsibility to department, which get involved into Campina's Web site operations. For example, communication department will responsible for general information, marketing department for product news and human resource department for vacancies.

For operational purposes, Campina trained its staff with Web content management course. Korper and Ellis (2000) argue that since company decides applying Web site, they should also ensure its content management capabilities. Generally, content management involves a central hub server that changes are made. Due to those changes, an authorized and trained staff is required to modify and approve changes. In addition, Campina use external hosting to host their E-Commerce solution on their Web site and firewalls, password protection for security system.

Linking the inventory management and finance system are also important for Campina, since one of Campina's Web site tasks is transactional purposes. Prior to that, Campina has implemented ERP - SAP/R3 and SAP Business warehouse into their systems. According Korper and Ellis (2000), ERP system as well as EDI systems, third party software and any proprietary systems are required to integrate the inventory management and finance systems that can be as an important role for a successful E-Commerce site.

Having regards to this integration, Barua et al., (2000) underlines that system integration of Web includes Web applications and back-office systems in the organization. They subsequently argue that system integration is one of factors of key drivers for operational success. The other factors are, namely:

- Customer orientation of IT, informational and transactional.
- Supplier orientation of IT, informational (quality, supply continuity and relationship management) and transactional.
- Internal orientation of IT.
- Customer-related processes.
- Supplier-related processes.
- Customer E-Business readiness.
- Supplier E-Business readiness.

In order to enhance its technical requirements and Web administration, Campina should be aware of the following factors that determine the effectiveness of system integration (Barua et al., 2000), as follows:

- Various internal groups should be easily share data.

-
- Downstream processes and systems automatically reflect order changes.
 - Systems can easily transmit, integrate, and process data from suppliers, vendors and customers.
 - Systems allow continuous monitoring of order status at various stages in the process.
 - Employees can easily retrieve information from various databases for decision support.

To this end, this research study does not examine the effectiveness of system related decision on Campina's Web site because of data and time limitation. Nevertheless, from research findings indicate that the value of system has enable Campina to organize their communication as well as transactional purposes on their Web site. In order to have deeper understanding of system-related decision, further research is required to examine other system-related within Campina's Web site.

5.5 Summary

This chapter has looked at the implementation of E-Commerce applications within Campina BV and examined those implementations based on Web Marketing Model proposed by Constantinides (2002). The research findings indicate that the main purposes of applying E-Commerce within Campina are for informational or promotional tasks followed by transactional tasks.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

The aim of this chapter is to draw conclusions and to give recommendations based on both industrial analysis and Web Marketing Mix analysis in respect of Campina BV in the Netherlands. Therefore, this chapter is divided into three main sections, namely:

1. Conclusions and Recommendations of Industrial Analysis
2. Conclusions and Recommendations of Web Marketing Mix Analysis
3. Summary

6.1 Conclusions and Recommendations of Industrial Analysis

6.1.1 Conclusions

1. As discussed in Chapter 4, there are many forces that determine the condition of Dutch food industry. Table 6.1 below depicts the overall analysis of competitive forces within the Dutch food industry.

Table 6.1.1 Summary of Dutch food industry analysis

Competitive Forces	The Degree of Competitive Forces		
	Low	Medium	High
Rivalry among competitors			✓
Potential entry of new entrants			✓
Threat of substitute products or services		✓	
Bargaining power of suppliers		✓	
Bargaining power of buyers			✓
Overall assessment			✓

Therefore, I conclude that the degree of competitive forces within the Dutch food industry is fairly high.

2. There are several factors that should be taking into account that influence the Dutch food industries, namely:
 - Changes in European macro economic condition. For example, GATT agreement in 1995 that reduced the export subsidies and WTO Doha about trade liberalism made Europe's decline for dairy traded products in the international market.

-
- High inflation rate within EU countries drives dairy firms to operate efficiently and effectively since the operational costs are higher as well as labour cost and other costs.
 - Recent trends in dairy products such as product differentiation have allowed firms to adapt quickly in order to maintain their competitive advantage.
 - Changes in consumer life-styles and behaviors offer opportunities to dairy firms as well as challenges that should be taken into account.
 - A consolidated market in dairy industry as well as the retail industry has forced both retailers and manufacturers to establish a mutual partnership.
 - Rapid changes in technology such as E-Commerce have allowed firms to conduct E-Business in order to foster their business operations.

6.1.2 Recommendations

Having regards to the above conclusions, my recommendations are, as follows :

1. Since there are many changes and higher complexity within dairy food industry as well as in consumer behavior, I recommend that dairy firms to put more concern on research and development areas.
2. In line with consolidated market within the EU region for dairy food products, I recommend that dairy firms to examine other markets worldwide that can offer them opportunities to expand their business operations.
3. In a consolidated industry, several strategic moves can be considered (Thompson and Strickland, 2001), namely:
 - Reducing marginal products and models by placing more attention either on items whose margins are highest or items that company has a competitive advantage.
 - Enhancing value chain efficiency by streamlining various value chain activities through E-Commerce and implementing cost-saving innovations.
 - More focus on cost reduction.
 - Enhancing sales to existing customers by providing them complimentary items and additional services as well as discovering more ways for customers to use the product.

-
- Purchasing rival firms at bargain prices by acquiring facilities and assets of struggling rival firms in order to expand market coverage as well as opportunities for greater economies of scale.
 - Expanding internationally in order to secure an attractive growth and potential new markets.
 - Building new or more flexibility capabilities in order to make core competencies more adaptable to changing customer needs and expectations.
4. With an emerging technology such as E-Commerce that offers new business opportunities, I therefore recommend that dairy firms explore those opportunities and deploy appropriate ECommerce applications that can enhance and strengthen their position in the market place.

6.2 Conclusions and Recommendations of Web Marketing Mix Analysis

6.2.1 Conclusions

- Research findings indicated that Campina mainly used its Web site for informational or promotional purposes followed by transactional purposes.
- The 4S Web Marketing Mix Model which proposed by Constantinides (2002) has offers potentially deeper frameworks of thinking in order to understand the application of E-Commerce on the Web marketing mix. This is applicable not just for the Dutch food industry but also for other industries in terms of how to measure the under noted points.
 - Analysis of Scope (S1) offers opportunities to explore how effective is the objective of a particular company in applying E-Commerce.
 - Analysis Site (S2) offers opportunities to explore the attractiveness of a company's Web site.
 - Analysis of Synergy (S3) offers opportunities to examine the synergy of E-Commerce application in a company.
 - Analysis of System (S4) offers opportunities to analyze how effective is the E- Commerce system within a company.

6.2.2 Recommendations

- Since the research findings indicated that Campina mainly used its Web site for informational or promotional purposes followed by transactional purposes, I recommend that Campina explores more new development in E-Commerce applications with the objective of attracting new customers and retaining existing customers.



- Investment in E-Business technologies should have impacts on firm's business operations. These impacts can experience by a firm's customers, suppliers as well as business partners. Future research is required in order to examine the impacts of E-Business technologies on company's business operations.

6.3 Summary

This chapter has concluded and gave recommendations about the situation in the Dutch food industry followed by the implementation of E-Commerce applications within Campina BV and examined those implementations based on Web Marketing Model proposed by Constantinides (2002). The research findings indicate that within Dutch agricultural economy the industry of Dairy food has been consolidated. The main purposes of applying ECommerce within Campina are for informational or promotional tasks followed by transactional tasks.

The recommendation suggests several strategic actions which applicable in the consolidated market and further study are required in order to measure the impacts of E-Commerce applications within particular company.

This research project can not measure the impacts of E-Commerce applications through regression analysis which aforementioned on Chapter one, due to time and data limitations.



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APPENDIX



INTERVIEW QUESTIONS

The purpose of these interview questions is to gather information from your company about the application of e-commerce on web marketing within Campina BV.

These interview questions consist of **2 (two) parts**, namely **General Questions** and **The 4S Web Marketing Mix Questions**.

PART I

General Questions

- When did Campina introduce e-commerce tools into its organization?

- What business functions do Campina's e-commerce tools currently support?
(For example: email, banking, information gathering/research, purchasing, selling, other reasons).

- What was the first e-commerce application that Campina employed within its organisation?
(For example: Informational purposes, marketing purposes, other reasons).

- What were the reason(s) for Campina making that decision?

- Where did Campina obtain the advice, assistance or staff to implement that application?

- What were the main obstacles for Campina to overcome?
(For example: technical problem, or other reasons).



- How did Campina overcome those obstacles?
-

- What other e-commerce tools have Campina applied since then?
-

- How have the Information Technology and Marketing Departments received them?
-

- Before Campina adopted any e-commerce tools:

- What proportion of Campina's suppliers/customers was local, regional, and/or international?
(For example: 20% International, 30% Regional, 50% Local)
-

- What proportion of the value of Campina's purchases/sales was local, regional and/or international?
(For example: 20% International, 30% Regional, 50% Local)
-

- After Campina adopted e-commerce tools:

- What is the geographical spread of Campina's customers/suppliers, in terms of being local, regional and/or international?
(For example: 20% International, 30% Regional, 50% Local)
-

- What proportion of the current value of Campina's purchases/sales is local, regional, and/or international?
(For example: 20% International, 30% Regional, 50% Local)
-



- Has the adoption of e-commerce had an impact on your business, in terms of:

- Costs?

Yes No [Please circle your answer]

Please explain Further _____

- Benefits?

Yes No [Please circle your answer]

Please explain further _____

- Other? _____

PART II

[This part consists of two sections. The first section deals with an exploratory analysis and the second section deals with regression analysis. The first section refers to the "4S" Web Marketing Mix Model, as set out by Constantinides (2002), and comprises four elements, namely S1= Scope; S2 = Site; S3 = Synergy and S4 = System].

A. Exploratory Analysis

1) Scope (S1)

- What are the on-line strategic objectives of Campina?
(For example: enhancing profitability, improving the company image, or other reasons).

- How do you identify Campina's existing and future customers?
(For example: buying motives, cultural background, life-style, geographical, or other reasons).



- How many competitors were known to Campina before Campina adopted e-commerce applications?

How many competitors were known to Campina after Campina adopted e-commerce applications?

What has been Campina's response to that?

- Has Campina used the worldwide web to research the actions, product offerings, and prices of Campina's competitors?

Yes No [Please circle your answer]

- How does Campina manage its web operations?
(For example: in house, outsourcing or other reasons)

- How would you describe Campina's on-line activities?
(For example: informational, educational, service oriented, promotional, relational, transactional, or other reasons).

2) Site (S2)

- Has Campina used its web site to communicate or promote its products or services?

Yes No [Please circle your answer]

Please explain further _____



- Has Campina used the worldwide web to provide general information about Campina either to Campina's customers or stakeholders?

Yes No [Please circle your answer]

Please explain further _____

- What functions do you provide on Campina's web site?
(For example: customer service, helpdesk functionality, market data, direct sales, on-line payments and on-line communication).

- Is it easy to find Campina's web site on the Internet?

Yes No [Please circle your answer]

Please explain further _____

- What are the technical considerations in building Campina's web site?
(For example: average users skill, bandwidth, or other factors?)

- What do you think would motivate your customers to revisit Campina's web site?
(For example: easy to find, user friendly, or other reasons).

3) Synergy (S3)

- Do you think that Campina's web site is already integrated with Campina's communication/advertising plan and distribution strategy?

Yes No [Please circle your answer]

- Does the Campina's web site inform its customers about Campina's future web activities?

Yes No [Please circle your answer]



- What do you think are the impacts of Campina's mail order and telephone sales in respect of its web-site application?

Smaller Greater No impact [Please circle your answer]

- Does the Campina's website support any of the following:

- o Customer service?

Yes No [Please circle your answer]

- o Order processing?

Yes No [Please circle your answer]

- o Logistic purposes?

Yes No [Please circle your answer]

- Do you think any or all three of the above mentioned will result in:

- o Cost advantages?

Yes No [Please circle your answer]

Please explain further _____

- o Improved decision-making?

Yes No

Please explain further _____

- o More efficient information management?

Yes No

Please explain further _____

- How do you define Campina's total web activities and their value to Campina?
(For example: on-line ordering will allow cost reduction and higher efficiency)



- Is it easy for Campina's customers to find Campina's website on search engines and web directories?

Yes No [Please circle your answer]

- Does the Campina's web site have banners, buttons or links to other web-site or affiliate networks?

Yes No [Please circle your answer]

Please explain further _____

4) System (S4)

- How does Campina maintain its web site?
(For example: availability of technical and service for 24 hours per day and 7 days per week).

- What kind of web server or hosting and Internet provider does Campina use?
(For example: external hosting, internal hosting)

- What kind of data or other information does Campina use on its web site:

- o A data with presentation quality?

Yes No [Please circle your answer]

- o User friendliness?

Yes No [Please circle your answer]

- o Easy navigation?

Yes No [Please circle your answer]

- o High-speed access?

Yes No [Please circle your answer]

- How does Campina manage its web site content?



- Why do you update Campina's web site content?
(For example: in response to customer needs, market changes, or other reasons).

- What training courses/packages has your staff undertaken in order to operate Campina's web site more effectively and efficiently?

- Which department is responsible for the data and content appearing on Campina's web site?
(For example: Information Technology Department, Marketing Department).

- What precautions do you take in order to provide security on Campina's website?

- What kind of transactional procedures appear on the Campina's web site?
(For example: administration, choice of transactions or payment, or other reasons).

- Does the Campina web-site deal with the following aspects?
 - o Collecting the data on product orders or others?
Yes No [Please circle your answer]
 - o Processing and disseminating web site traffic?
Yes No [Please circle your answer]
- Do you provide a system back-up for data that you receive and/r provide a system back-up on Campina's web site?
Yes No [Please circle your answer]
- How do you overcome the technical or system failures on the Campina's web-site?



B. Regression Analysis

- Could you please provide me with the following data ? The purpose of this data collection is to perform regression analysis.
 - o Time series data based on either annual profit or annual revenue before and after e-commerce applications?
 - o The number of Campina web-site visitors based on a year by year basis.
 - o Campina's initial investment cost to build Campina's web -site.
 - o The number of customer's complaints arising from Campina's web site based on a year by year basis
 - o The number of banners, buttons, and links created on Campina's website.
 - o The number of staff or personnel who manage Campina's web site on a year by year basis.

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Thank you for your participation in this research project.

If you have any queries, please do not hesitate to contact me:

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