



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

Academic Year 2012/2013 – 3rd Year Examination – Semester 6

***IT6304: e-Business Application
Structured Question Paper***

**3rd August, 2013
(TWO HOUR)**

To be completed by the candidate

BIT Examination Index No: _____

Important Instructions:

- The duration of the paper is **2 (two) hours**.
- The medium of instruction and questions is English.
- This paper has **4 questions** and **24 pages**.
- **Answer all questions.** All questions carry equal marks.
- **Write your answers** in English using the space provided **in this question paper**.
- Do not tear off any part of this answer book.
- Under no circumstances may this book, used or unused, be removed from the examination hall by a candidate.
- Note that questions appear on both sides of the paper.
If a page is not printed, please inform the supervisor immediately.

Questions Answered

Indicate by a cross (×), (e.g. ☐) the numbers of the questions answered.

To be completed by the candidate by marking a cross (×).	Question numbers			
	1	2	3	4
To be completed by the examiners:				

Case Study

“Grand Tiles” is a pioneering floor tile producer in Sri Lanka which commenced its operation in 1990 by manufacturing cement floor tiles as its core business. Grand tiles has won many local and international awards for its excellence. Grand Tiles produces various types of floor tiles, wall tiles, bathroom tiles and granite tiles for a large number of corporate clients and international clients.

There are 5 quality tile producers in the country and Grand Tiles owns 38% of the market. There are importers of tiles from various countries and their market share is on the increase. Grand Tiles has a dealer network of 20 direct dealers having franchisers and 30 distributors island-wide. They are exporting tiles to the USA, India, Canada, Singapore, Australia and 5 other countries for the last 10 years. There are many new tile exporters coming into the market as the construction industry is booming in Sri Lanka.

The company introduced new technologies to the 2 manufacturing plants situated in Ratmalana and Galle 8 years ago. The 20 dealers and the company showrooms are all having a network that connects them to the head office situated in Colombo. The head office uses an Enterprise wide Information system that links payroll, inventory control, order processing, purchasing and financial management activities. Their foreign buyers connect with Grand Tiles through their web-based information system which supports on line ordering. However, the payment system is handled by their own banks they deal with, as the web based system does not provide that facility.

There are products such as Carpets & Cement flooring that is affecting the market share of Grand Tiles indirectly. Grand Tiles has not identified a unique product and deals with an undifferentiated product in the market. Many foreign customers are requesting a payment-gateway as most of the foreign competitors are providing this facility. Some competitors allow virtual tours of homes which enables the clients to take a virtual tour of their building with the tiles they choose before purchasing the tiles.

The owner, Mr. Grandal Tilakaratna has plans to introduce new products to niche markets and to expand the international clientele. He has plans to start new showrooms as well as establish collaborations with construction companies who are the developers of housing schemes, apartments and theme parks. He is also concerned about the increase in raw material prices and price wars among competitors.

1. (a) Mr. Grandal Tilakaratna wants to improve Grand Tiles to incorporate all ideas in his expansion plans using the latest technology. In order to do that, first, he must try to understand the situation of his organisation. Carry out a SWOT analysis on Grand Tiles.

(40 Marks)

ANSWER IN THIS BOX**Strengths**

- being a pioneer floor tile producer
- has won many awards local/international awards
- produces various types of tiles
- owns 38% of the market
- has a dealer network of 20 direct dealers having franchisers
- has 30 distributors island wide
- exporting tiles to USA, India, Singapore, Canada, Australia and 5 other countries for the last 10 years
- introduced new technologies to 2 manufacturing plants 8 years ago
- direct dealers are having a network that connects them to the head office
- head office has an enterprise wide information system
- foreign buyers link through web based system that facilitates on line ordering.

Weaknesses

- online system does not provide payment facility
- not identified as a unique product
- limited facilities – no virtual tour

Opportunities

- can produces various types of floor tiles, wall tiles, bathroom tiles and granite tiles for as the company has large number of corporate clients
- construction industry is blooming in the country
- can implement payment gateway facility as there is a huge demand for it
- can enable virtual tours as the technology is available and demand is there
- introduce new products to the niche market & expand international clientele
- start new showrooms
- establish collaborations with construction companies who are developers of housing schemes, apartments and theme parks

Threats

- 5 quality tile produces in the country
- There are importers of tiles from various countries and their market share is on the increase.
- many new tile exporters coming into the market
- substitutes like carpets, cement flooring affects the market share
- deals with undifferentiated products in the market
- increase in raw material prices
- price wars among competitors

- (b) Grand Tiles has a lot of competitive forces working on the organisation. Identify the five forces working on the organisation and analyse whether the forces are high, moderate or low. Justify and explain your answer.

(30 Marks)

ANSWER IN THIS BOX

Bargaining power of customers – high/very high

- Many tile companies in the market and many new are also coming

Bargaining power of suppliers – high/ very high

- Many tile produces thus increasing the price of raw material

Threat of new entrance – moderate to high

- New tile exporters are coming into the market as the construction industry is blooming
- However the starting cost are high

Threat of substitutes - high

- Carpets and cement flooring affect the market share

Rivalry among competitors - high

- 5 quality producers
- Price wars

Continued

- (c) Would you propose the Supply Chain eBusiness Model for this company to solve some of their problems? Explain and justify your answer.

(30 Marks)

ANSWER IN THIS BOX

Yes

It helps to lower bargaining power of suppliers due to the following features

Supply Chain Model

- Virtual Value Chain
- Information flow across the supply chain
- All parties have a strong electronic bond and backend systems
- Some companies do/don't own any part of the value chain
- They have access to information about all from supplier/manufacturer to the customer

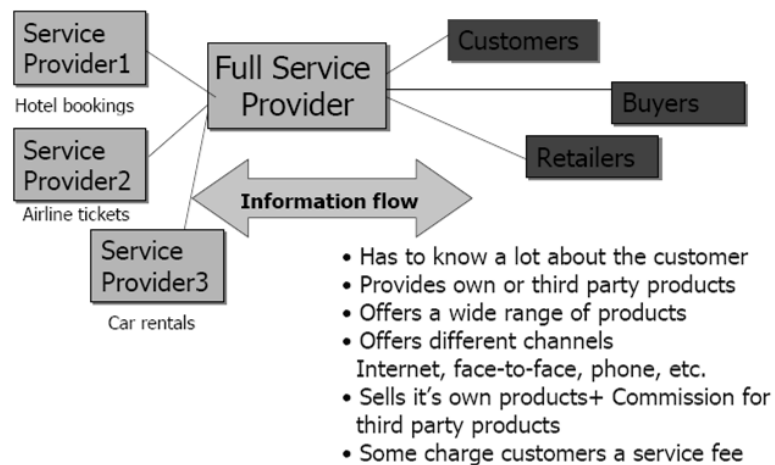
Continued

2. (a) Illustrate and briefly explain the following eBusiness models and its advantages to any business organisation and its customers.
- Full Service Provider Model
 - Global Trade Platform for SMEs

(30 Marks)

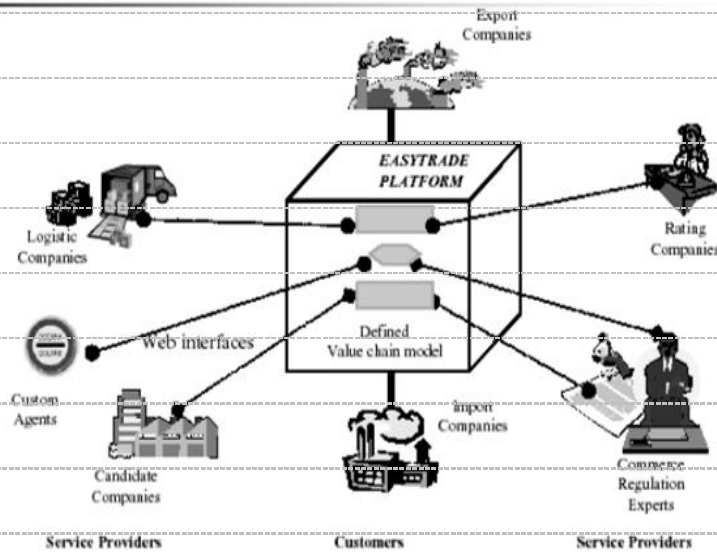
ANSWER IN THIS BOX

i.

Full-Service Provider Model*Continued*

ii.

A Global Trade Platform for SMEs



It is an innovative ICT platform

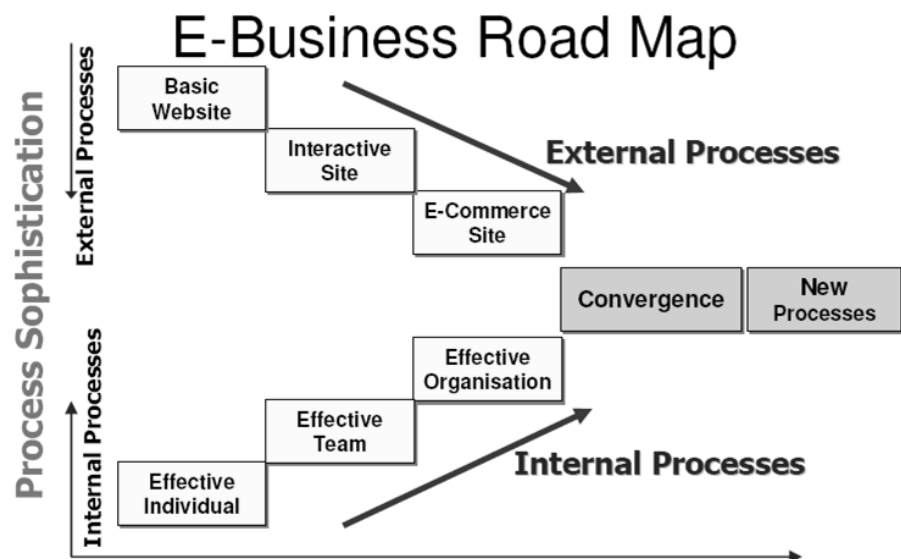
- dedicated to foreign trade
- which allows organisations (especially SMEs) to manage and carry out their business to business transactions on the Internet
- inside a high security environment
- involving different types of users such as companies, banks and other foreign trade sector operators.

Continued

(b) Illustrate and briefly describe the steps in the eTransformation roadmap.

(50 Marks)

ANSWER IN THIS BOX



Basic website - The organization has it's own domain name and 'brochure ware' type of website hosted with an ISP.

Interactive Site - Dynamic web site providing two-way flow of information. Answers structured queries. Existence of a news forum, chat area, feedback forms. Uses own domain name, database, scripting languages. Requires a web server and a high speed dedicated connection to the Internet. Strong back-end systems and security measures.

Continued

E commerce site – the organization should have a secure web server to facilitate financial transactions or a link to a payment gateway to process online payments.

Effective Individual - Individuals using computers and standalone productivity software such as accounting packages, Payroll s/w, Inventory Control software, spreadsheets, word-processors, etc. May be connected to the Internet and using email, too.

Effective Team - Computer network being used in functional units such as Accounting, Production. People work in teams using networked applications, e-mail, intranet capabilities to enhance team productivity.

Effective Organization - Enterprise wide applications are used for purchasing, manufacturing, sales, accounting, etc. Information integration and sharing across the enterprise.

Convergence – all processes are integrated in the convergence step

New Process – after convergence the company can initiate new processes like SCM, KM, CRM

Continued

- (20 Marks)**

Now – External -> Interactive site because company has a website that takes in online orders but not yet integrated the payment gateway ,

Internal -> Effective Organization because company has an enterprise wide information system

12

Next step – implement payment gateway and integrate all processes to reach convergence

3. (a) When an organisation is going through the eTransformation process, it has to follow a proper eTransformation methodology. Discuss the characteristics and the importance of the following stages of the 7E's in eTransformation.
- i. eReadiness
 - ii. eSystems
 - iii. Evolution – Change Management

(45 Marks)

ANSWER IN THIS BOX

eReadiness

Internal:

Business processes – Well defined processes
 Applications & Infrastructure
 Web presence – Existence/ usage
 Skills – Level of IT skills of the employees
 Executive mgt – Commitment/Support
 External connectivity – Channels
 Future directions – Plans for expansions

Continued

External:

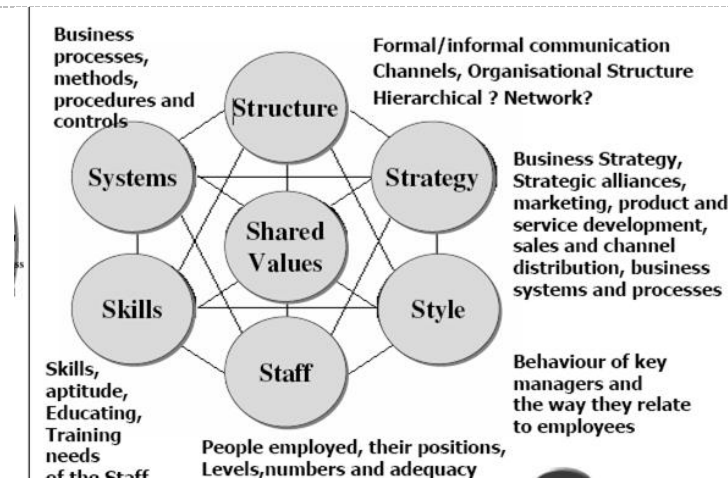
Customers, Suppliers, Potential users

eSystems (Policies, Support, Maintenance)

Management Controls : Standards, guidelines to users, Procedures, Manuals

Security Measures : To deal with common threats (sabotage, hacking, privacy, etc.) and contingency planning and disaster recovery

IT Maintenance and Support: (Support for ICT infrastructure, upgrading, backing up, maintenance, troubleshooting, Support by the ISP and Vendors)

Evolution – Change Management**7S Model for Change Management****7S Model**

1. Strategy – This defines key actions and capabilities along the major dimensions of marketing, product and service development, sales and channel distribution, business systems and processes, and management of alliances and partnerships in order to achieve organisational goals.

2. Structure – The way the organisation's units relate to each other and the chain of command and formal/informal communication channels

3. Systems – The information flow which requires capabilities in both information technology and in organisational processes, methods, procedures and controls.

Continued

4. Style – The behaviour of the key managers and the way they relate to employees in order to achieve the organizational goals

5. Staff - The types of people employed in the organization, their positions, levels and numbers.

6. Skills - The skills and aptitude for developing customer relationships, service and sales For staff to develop appropriate new skills requires a learning environment.

7. Shared Values – The guiding concepts, values and aspirations, often unwritten, which directs all the personnel in the organization in the same direction

- (b) What is your opinion on the following statements? Are they true or false? Justify your answer using an example each from the case study given in Q1.
- When the 'new entrants to the industry' are high and the 'rivalry among competitors' are also high, a company can easily use the 'revenue sharing eBusiness Model' to lower the competition.
 - When the 'bargaining power of substitutes' are high in an industry, a company could use the 'full service provider model' to help the company to negate the force

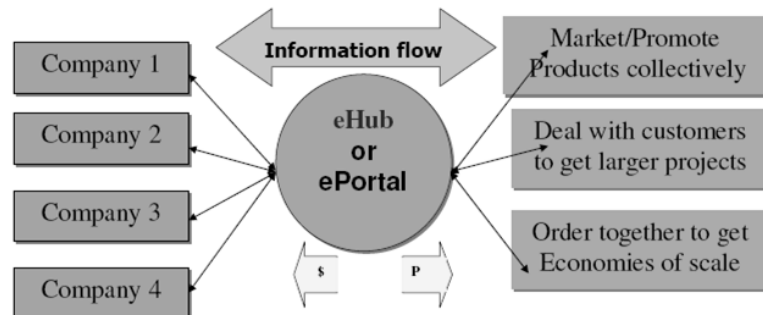
(40 Marks)

ANSWER IN THIS BOX

i – false

As there are many 5 major competitors we cannot use the revenue sharing model

Revenue sharing eB Model

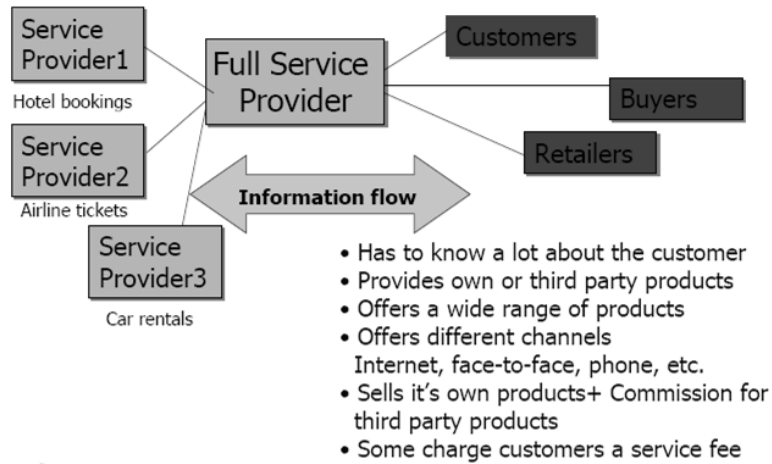


- The sellers get together through a Portal
- They Market/ Promote products collectively to a larger mkt segment
- Sellers can work on larger projects/orders as they work collectively
- Collective bulk orders give them bargaining power over suppliers
- Resources as well as profits are shared among companies

Continued

ii – true

Full-Service Provider Model



Grand tiles can collaborate with service providers of the construction industry and give the customer the full service. This will reduce the bargaining power of substitutes.

Continued

(c) Briefly explain the following terms.

- i. CRM
- ii. SCM
- iii. KM

(15 Marks)

ANSWER IN THIS BOX

- i. CRM - Customer relationship management (CRM) is a model for managing a company's interactions with current and future customers. It involves using technology to organize, automate, and synchronize sales, marketing, customer service, and technical support
- ii. SCM - Supply chain management (SCM) is the management of an interconnected or interlinked between network, channel and node businesses involved in the provision of product and service packages required by the end customers in a supply chain.
- iii. KM - Knowledge management (KM) comprises a range of strategies and practices used in an organisation to identify, create, represent, distribute, and enable adoption of insights and experiences.

Continued

(20 Marks)

Benefits

- Chance to capture large markets
- Establishing a brand name
- Exclusive strategic alliances

Continued

19

- Global Accessibility
- Competitive Edge

Issues

- Cost of developing initiative is usually very high
- Chance of failure is high
- System may be obsolete as compared to second wave arrivals
- No support services are available at the beginning
- Shortage of skills

- (b) Using three (3) examples, briefly explain how digitisation of products have changed the way eBusiness works.

(30 Marks)

ANSWER IN THIS BOX

Music

Before - Tapes / cassettes

Now – CDs, Mp3

before had to have shops and sell music cassettes, now and have online stores which allows mp3 downloads

Books

Before - Books

Now – softcopies of books

Selling books in stores or if online needed to ship. But now its virtual shops allowing to download books. (e.g. Amazon)

Continued

News

Before – news papers, magazines

Now – online news articles

any other similar examples (properly explained)

- (c) What are the two (2) most important aspects to consider in a virtual organisation which is borderless, faceless and paperless? Justify your answer.

(20 Marks)

ANSWER IN THIS BOX

Trust

in a borderless, faceless and paperless organization the customers do not actually see or encounter with the organization itself. So in order to do business customer trust is a most important aspect.

Security

In a virtual organization the organization uses customer personal information, interests, payment gateways which deal with credit card information. These are all sensitive data. If proper security is not there a virtual organization will not be able to survive.

- (d) Dell Computer Company uses a Direct-to-Customer approach in doing business where there are no middlemen. The company also makes-to-order rather than sell pre-manufactured products. Briefly explain five (5) advantages of this approach.

(20 Marks)

ANSWER IN THIS BOX

Can sell at lower prices
 Build to customer order
 Receive payment earlier
 Speed up new product release cycles
 Use customer data to provide customized value added service
 Proactive decision making

- (e) List down five (5) ways eBusiness concepts could be used to resolve global problems related to poverty and disparity of resources between the wealthy countries and the poor countries.

(10 Marks)

ANSWER IN THIS BOX

eEducation

eHealth

eFood

water

charity
