An i5 Group Guide.

Planning your transition to eCommerce

iBusiness Services & Applications
33 Chesham Road, Bryanston 2021
Tel: +27 (11) 469 7091 ~ Fax: +27 (86) 678 0161
Suite 228, Private Bag x51, Bryanston 2021
eMail: malcolm@i5.co.za ~ www.i5.co.za

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iBusiness Services & Applications
33 Chesham Road, Bryanston 2021
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Suite 228, Private Bag x51, Bryanston 2021
eMail: malcolm@i5.co.za ~ www.i5.co.za

Introduction

Post the expensive YK2 crisis, the enlightening Dot Com crash, and, most recently, the ineffective ERP revolution, business is far more cautious and sceptical about the lucrative returns offered by eCommerce. Most organisations and their Chief Information Officers [CIOs] are ignoring the hype and insisting that proper planning and model-based decision making be applied to eCommerce strategies.

This paper is designed to help you build a solid business plan for your eVenture™ (eCommerce operation) using our Triplicity™ Model. The model not only helps ensure a thorough approach initially, but its ongoing nature encourages the habit of transformational thinking required to prosper in this new economy.

The Triplicity™ Model helps ground your eVenture™ from the start by embedding it within a financial business case based on Return On Investment [ROI]. In this context, the term means that decision makers evaluate an eCommerce system's potential by comparing the magnitude and timing of expected gains to the investment costs involved. Consequently, it can prove very useful both when assessing a project's potential and when trying to ensure that realistic expectations are set.

As well as taking you through the preparatory process step-by-step (from building and hosting the site to ongoing promotion), this paper will discuss the basic processes that take place during an eCommerce transaction, and introduce you to the 'agents' that help broker the exchange.

And through this process we hope you will come to see that eCommerce is, in the final analysis, more of a mindset than a method.

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1. Planning your eVenture™

The key to ensuring your eCommerce operation is a success is to treat it the same way you would any other new venture and start by building a solid business plan for it.

And always begin with the knowledge that planning your eVenture™, while clearly critical at the outset, is actually an ongoing process. Your plan will require constant re-evaluation and adjusting since the behaviour of markets and customers is always changing, and your eCommerce experiences will constantly suggest new ways of achieving, measuring and calculating your return on investment.

Also be wary of not 'reinventing the wheel' and look carefully at whether it makes more sense to build your own system or buy a vendor's solution. Although this is a vast topic in itself, any credible eCommerce model should provide the important ancillary function of helping you decide what, if any, parts of your eCommerce initiative to outsource.

And finally, it is important to remember that your foray into eCommerce is likely to have a larger effect on your organisation than anticipated and require significant infrastructural and training investment as well.

This paper follows the dynamic process illustrated by our Triplicity™ Model (shown below). The model is divided into three major steps: planning; calculating, and implementing. Each of these stages informs or 'feeds' the next, and is also sub-divided into the two main tasks required to fulfil it.

Overleaf we begin the first step of the process and start building our plan by working out the costs we are likely to incur, and balancing these against a forecast of our expected revenues.

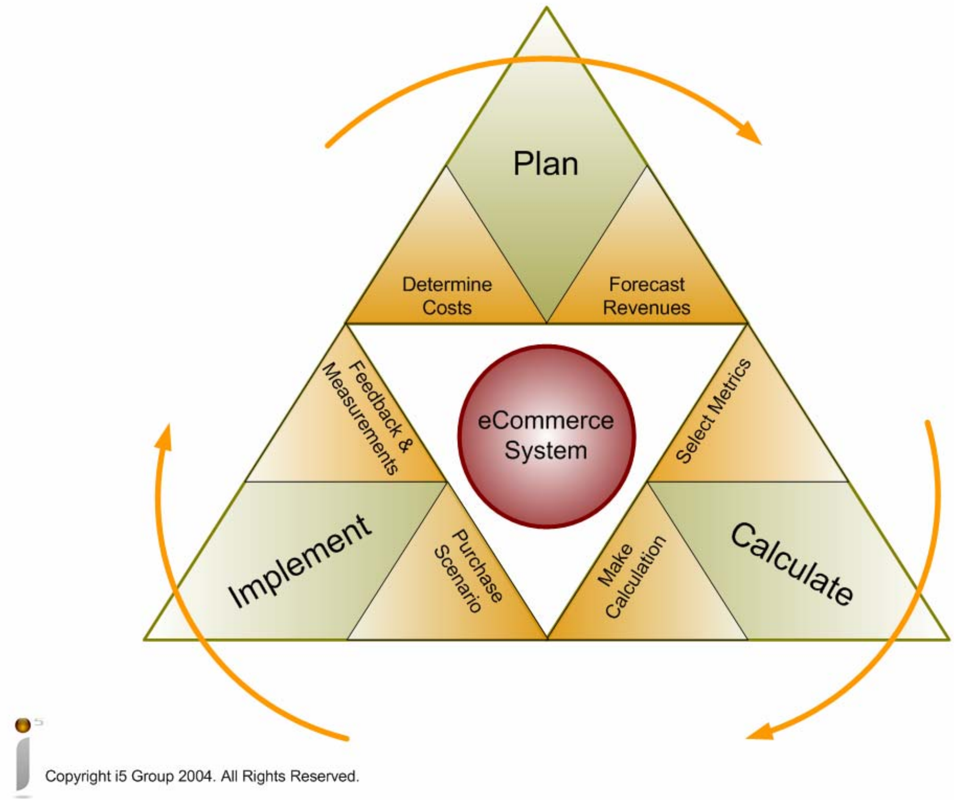

Fig. 1 ~ i5 Triplicity™ Model

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1. 1. Determining Costs

The following list identifies your likely eCommerce 'costs' and is offered as a starting point.

1.1.1. Software

- Website (your online store ~ budget for professional design and development)
- Database (assess the costs of creation, storage, security and maintenance)
- Payment Gateway (service that links your infrastructure to global banking system)
- Certificate Authority (service that builds trust/assures customers of your security)
- Proprietary Software (licensed software that you purchase or lease i.e. Windows 2003)

1.1.2. Hardware

- Servers (dedicated machines delivering the 'services' required i.e. e-mail & internet access, website hosting, database management and back-ups etc) **
- Clients (desktop or mobile machines required by workers to run eCommerce system)
- Redundancy (machines and equipment available in case of emergency or failure)

** can be outsourced and 'hosted' by another company (useful for smaller eVentures™)

1.1.3. Transformation

- Promotion (Advertising and Marketing budgets ~ critical to making the site a success)
- Project Management (often external expertise required)
- Change Management (critical, and often costly, during implementation phases)
- Local/Wide Area Network [LAN/WAN] (will your existing network need upgrading?, perhaps your organisation needs to consider mobility & becoming wireless [Wi Fi])
- Connectivity (will you need to move from dial-up to ADSL or other type of broadband?)
- Data Migration (moving data to new locations to ensure security, accessibility and compatibility across organisation)
- Training

N.B. When determining subsequent year costs, make sure you include maintenance and support for all applications and systems, as well as inflation.

1. 2. Forecasting Revenues

eCommerce revenues are notoriously tricky to ascertain, but usually come from one of four main sources (see below) and the really successful eVentures™ tend to use a combination of these potential revenue streams.

1.2.1. Sales

The predominant source of eCommerce revenue today comes from selling products or services online, and it is likely that this revenue stream is at the centre of your ROI model.

Revenue from sales is most easily associated with online retail businesses like Amazon.com, but any site that is able to build a brand is also capable of building sales from merchandising. There are plenty of examples of companies that have successfully done this – from Google to The Register – and it is worth considering as a potential supplement to your primary revenue streams.

1.2.2. Commissions

Auction companies, such as eBay, and some of the bigger portals use commission or transaction payments as their primary source of income. In such cases, they usually charge a 'handling fee' of around 10% of the total value of the transaction.

There are also thousands of successful affiliate and reseller websites that rely on this revenue stream and it can be tailored to suit virtually all eBusiness models.

Referring your customers to other companies that offer complimentary products or services on a commission basis can be a very lucrative source of income – if applied appropriately and judiciously. In other words, if you make sure the referrals match your site's audience.

Although they generally prefer CPM (cost per thousand) and CPC (cost per click) deals, online advertising agencies may also use this revenue stream in their mix when they accept CPA (cost per action) payment deals.

1.2.3. Subscriptions

Subscriptions are the most lucrative forms of eCommerce revenue at the moment and so just about every eVenture™ company seeks to add a subscription-based element to their offerings. Software companies, for example, use licensing and information sites parcel off the juicer bits of their content.

And yet people will only subscribe if they perceive real, meaningful value in your service and, crucially, cannot find a suitable free alternative after an exhaustive search.

Everyone pays a subscription of some kind to be online in the first place, so why should subscriptions be such a grudge purchase?

The answer is perception. Not only is the internet perceived as a place where information is 'freely' available, subscriptions are perceived as expensive – customers prefer to buy something and then own it.

The trick to this revenue stream, then, is to offer something unique and valuable in such a way that your customer feels ownership (for example, a free trial and then a monthly fee payable yearly in advance (for a discount), but able to be cancelled at any time) and convenience (choice of delivery options and formats).

1.2.4. Advertising

Revenues from advertising are difficult to obtain; the supply of available space far surpasses the demand, and the relative 'newness' of the medium makes it hard for advertisers to evaluate the value of the space being sold.

Nonetheless, the possibility of making additional revenue from selling space on your site shouldn't be discounted entirely. Once someone has purchased something from your site, you should know more about them and be able to translate that into effective advertising.

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The key to making money in this area would seem to be making sure of three things: firstly, that you are measuring and tracking all activity on your site in ways that are meaningful for potential advertisers; secondly, that you have allocated the right point-of-sale advertising space; and thirdly, that your site is driven by technology capable of storing and delivering appropriately targeted advertising to customers.

1. 3. Fictitious Case Study (example)

Company XYZ has been trading for seven years and manufacturers/distributes a range of industrial electronic goods. The company already has a website and advertises its domain everywhere. Sales have been dropping slightly, but steadily for the last two years and the marketing department suggests reaching deeper into their local market and the international market through an eCommerce solution.

The company decides to overhaul its two years old existing site as part of the exercise and since they already have their own eMail Server and Firewall, start managing their hosting presence themselves as well through a dedicated Web Server.

The company also decides to train one of their employees to administer the site, add new products, change prices etc. Further investigation reveals the administrator will require a new computer to help them, and the increased load on their bandwidth would suggest they should upgrade to broadband.

In this example, their year one 'opportunity costs' could look something similar to these:

Item	Cost (ZAR ex VAT)
Software	
Website (including Database)	R 75, 000
Payment Gateway (iVeri selected)**	R 3, 600 (per annum)
Certificate Authority (VeriSign selected)	R 4, 620 (per annum)
Windows Server 2003	R 5, 585
Hardware	
Web Server	R 13, 420
Client Upgrade (for Administrator)	R 6, 855
Transformation	
Promotional Activities	R 115, 000 (per annum)
Network Upgrade	R 2, 800
Connectivity Upgrade (from dial-up to ADSL)	R 9, 600 (per annum)
Training (for Administrator)	R 2, 450
Total:	R 238, 930

** You will also have to pay the gateway and banks involved a percentage of each transaction as a 'fee'. This is usually around 5-6% to each institution.

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The company has decided to be extremely conservative with regards its revenue predictions and, after careful research into its market, competitors and customers, has decided that eCommerce sales are likely to be mostly local and driven by convenience in year one. Consequently, the marketing department estimates eCommerce sales are likely to reach 4% of turnover and expects most of these sales to be 'conversion sales' as existing customers swap traditional sales routes and try out its eCommerce service.

Sustained and increased marketing and advertising activities, with a much larger focus on the European and American markets, in year two are expected to start yielding higher returns and sales are anticipated to exceed 15% of turnover.

Target advertising revenues are expected to start maturing towards the end of year two as the increasing traffic to, and activity on, the site lures referral advertisers. The company is also planning to develop its brand considerably and predicts merchandising sales to start becoming significant.

By year three, the company anticipates that international sales will be growing steadily on the back of a highly competitive price and now account for over 30% of turnover. Moreover, as local sales also increasingly migrate online, the overall cost of each sale is dropping dramatically and leading to increased profits and lower prices.

In this example, the revenue forecast for the first three years of operation could look like this:

	Year 1	Year 2	Year 3
Sales	R 120, 000	R 450, 000	R 980, 000
Merchandising	R 4, 000	R 26, 000	R 46, 000
Advertising	R 14, 000	R 68, 000	R 88, 000
Commission	R 2, 500	R 16, 000	R 53, 000
	R 140, 500	R 560, 000	R 1, 167, 000

2. Calculating Return On Investment (ROI)

2.1. Defining ROI

ROI is a broad term and does not have a single, universally understood definition. Consequently, when reviewing ROI figures, or when asked to produce them, it is important that everyone involved defines ROI the same way and understands its strengths and weaknesses when used to support business decisions.

Return on investment is frequently derived as the 'return' (incremental gain) from an action divided by the cost of that action. This is also known as 'simple ROI'.

For example, what is the ROI for a new marketing program that is expected to cost R 500, 000 over the next five years and deliver an additional R 700, 000 in increased profits during the same time?

Simple ROI = (Gains - Investment Costs) / Investment Costs

= (R700, 000 - R500, 000) / R500, 000

= 40%

This calculation works well in situations where both the gains and the costs of an investment are easily known and where they clearly result from the action. Other things being equal, the investment with the higher ROI is the better investment. The return on investment metric itself, however, says nothing about the magnitude of returns or risks in the investment.

In complex eCommerce settings, however, it is not always easy to match specific returns (such as increased profits) with the specific costs that bring them, and this makes ROI less trustworthy as a guide for decision support. Simple ROI also becomes less trustworthy as a useful metric when the cost figures include allocated or indirect costs, which are probably not caused directly by the action or the investment.

eCommerce investments typically involve financial consequences extending several years or more. In such cases, the metric has meaning only when the time period is clearly stated. Shorter or longer time periods may produce quite different ROI figures for the same investment. When financial impacts extend across several years, moreover, the analyst must decide whether to use discounted (net present value) figures or non discounted values.

2.2. Selecting Metrics (measurements)

There are a wide variety of common ROI metrics available and your starting definition will usually decide which one, or combination, is best suited to your particular needs.

In most eCommerce situations keeping it simple and calculating the cumulative cash flow results of an investment over time (simple ROI) is adequate to inform the decision making process (used in example calculation below), but there are plenty of other metrics you could employ including: Return on Invested Capital; Return on Capital Employed; Return on Total Assets; Return on Equity, and Return on Net Worth.

2.3. Example Calculation

The three year, cash flow-based, simple ROI model below provides a high-level assessment suitable for most initial decision making, and is relatively easy to calculate once the data has been collected.

Please note that this cash flow analysis does not factor the negative tax impact on improved profitability or the positive tax impact on depreciation, but attempts a 'like with like' comparison based on today's Rands.

	Year 1	Year 2	Year 3
Costs			
Capital	R 123,930		
Promotional Activities	R 115,000	R 165,000	R 220,000
Maintenance/Support	R 36,000	R 48,000	R 48,000
Revenues			
Sales	R 120,000	R 450,000	R 980,000
Merchandising	R 4,000	R 26,000	R 46,000
Advertising	R 14,000	R 68,000	R 88,000
Commission	R 2,500	R 16,000	R 53,000
Net Cash Flow Impact	R -134,430	R 347,000	R 899,000
Annual Cash Flow ROI (%)	- 49%	22%	49%
Payback Period (Years)	1.25		

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Notes:

- Annual Cash Flow ROI is calculated as the sum of the discounted cash flows, divided by the number of years, again divided by the initial investment.
- Payback Period is calculated by counting the number of years before the non-discounted, cumulative, forecasted cash flows equal the initial investment.

3. Implementing the system

3.1. Improving the Purchasing Scenario

The following scenario is representative of the approach taken by many organisations to selecting an IT partner and purchasing an eCommerce system:

- Changing customer behaviour and eBusiness landscape – coupled with growing inefficiencies within the organisation – lead the management team to conclude that the organisation must embrace eCommerce to remain competitive;
- The selection team interviews contending suppliers (vendors) – some providing excellent assessments of the current processes and procedures within the organisation – and reviews the submitted proposals and 'indicative pricings';
- The 'best fit' vendor is selected;
- After working with the vendor to determine the true scope of the project, the difference between the initial estimates provided and the increasingly larger 'actual cost' of implementation leads the management team to kill the effort.

The first thing that this typical scenario makes apparent is that the majority of companies approach eCommerce in quite a negative way. Management are reacting to external changes rather than trying to anticipate them, and the team tasked with planning the transition tends to focus inwards on the organisation and its current processes rather than externally on the opportunities available.

It becomes almost inevitable that the project will be defined more by its costs than its returns and, ultimately, flounder without support from senior executives. It is far easier to approach the exercise with just enough effort to establish really good reasons for not continuing with it. After all, there is no way of avoiding the intimidating, massive organisational change it eventually leads to.

Here are some suggestions, based on our experiences, of ways to improve this scenario:

- Start by realising that this transition is likely to be the single most important undertaking in securing your organisation's future;
- Make understanding this new economy your top priority and not only interpret the current eBusiness landscape, but keep investigating until you can start predicting how it is evolving and your organisation's changing role within it;
- Rather than begin with alterations to your existing business, start building the future organisation you research has identified;
- Develop a business case based on your research, and driven by a sound ROI model, at the start of the project (make sure you focus on both sides of the ROI equation: cost reduction and new revenue);
- Only approach vendors for proposals once you have clearly established your strategy and goals (leave them to suggest alternatives and fill in the technological detail).

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3.2. Basic Processes & System Agents

To help you understand the basic system your IT partner will be creating for you, the diagram below illustrates the 'building blocks' or basic processes that take place during an eCommerce transaction, and the 'agents' that help broker the exchange.

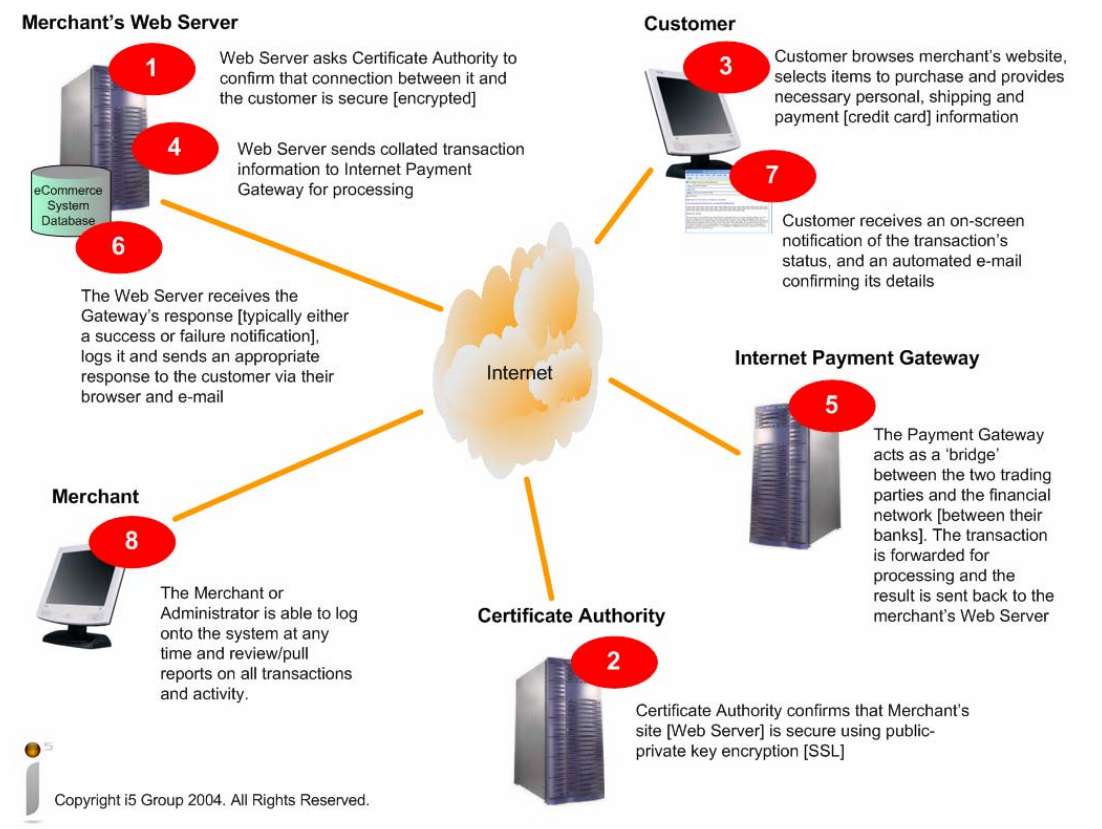

Fig. 2 ~ Basic eCommerce Process & Agents

Merchant's Web Server

This is the machine that will manage your entire eCommerce store (site). It will host your website, and the database that drives it, and record all activity that occurs on the site. You can either own and manage this server outright, 'share' (rent) hosting at an Internet Service Provider (ISP) or use a mixture of the two and have your own machine, but ask an ISP to manage and maintain it for you.

Running your own dedicated server gives you complete control over your eCommerce environment, and the service your customers receive, but is by far the most expensive option. Not only will you need to purchase and run the machine, but also employ a skilled technician to maintain and support it. Sharing is the cheapest option initially, and we would recommend all but the most ambitious eVentures start this way. Not only will it save you on equipment and staff, you won't have to purchase expensive connectivity to offer your service.

Once your eCommerce store (site) is busy you will probably find it is non longer practical to share a server and need to migrate to a dedicated machine, and, unless you are becoming solely an eVenture, we would again recommend allowing the ISP to manage it for you.

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Internet Payment Gateway

Unless you intend to manually process orders at your credit card terminal, you will need to enlist the services of an Internet Payment Gateway (IPG). These are third-party providers that supply the connections between you, your customers and the financial networks that move the money between you.

To enlist the services of an IPG, you will need to open an Internet Merchant Account (usually with your current bank) to allow you to receive online credit card payments. The fees charged for this 'service' vary and it is worth shopping around. Opening one of these account is similar to applying for a commercial loan and our advice would be to start this process as soon as possible because it can take a surprising amount of time and hassle to conclude.

IPGs usually offer either a flat rate fee per month (around R 1, 000) for their services or the option of combining a cheaper monthly charge (R 300) with a 'handling fee' for each transaction. Such fees are usually 5-6% of the transaction's value.

Certificate Authority

Although technically optional, we would recommend all but the most modest of eVentures recruit the services of a Certificate Authority (CA) since we believe that winning your customers trust is fundamental to ensuring the success of your eVenture.

The anonymity and remoteness of the internet can make potential customers feel vulnerable and they will need to be assured that your site is genuine and that the information they send you via their web browsers stays private and confidential. And Secure Sockets Layer (SSL) digital certificates, issued by CAs provide these crucial online identity and security guarantees that establish such trust.

If your Web Server has been secured using SSL, customers will receive messages indicating that fact — a closed padlock icon towards the bottom right of their browser and "http**s**" at the start of the URL in the address bar). They can then be confident that they are sending their personal information to a legitimate business and, in turn, you know you are receiving accurate information that the customer cannot refute later.

Feedback and measurements

Once you start offering an eCommerce service, measuring and recording activity becomes a mission-critical undertaking. As they say at eBay, the world's largest auction site, "if it moves – measure it!"

You need to start making detailed records of all activity across your site so you can:

- analyse and understand your customers buying behaviour and so make the right adjustments to your system to ensure its continuing success;
- increase advertising revenue by being able to target customers appropriately.

Also make sure you have excellent 'Back Office' administration tools built into the both your system and the Internet Payment Gateway provider's. You are now engaged in taking money from customers online and you need to protect yourself, and them, by ensuring you can quickly and easily pull logs of activity across the entire system and trace every transaction that takes place in detail.

