

The Development of a Planning Model for the Content of Small Business Websites

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ABSTRACT

This paper reports on the development and refinement of a model that links business planning and analysis tools, such as the SWOT analysis, with the creation and maintenance of the small business website. Initially, a number of existing models are examined. The development of the model is traced through its early implementation as a spreadsheet through to its current incarnation as a handbook. An overview is provided of how the early stages of the model would operate in practice.

Keywords: website; development; planning; study; small business; model

INTRODUCTION

Some of the major issues facing small businesses in relation to their use of information technology (IT) are that they lack basic knowledge of how to use IT effectively, they do not know how to measure the benefits of IT and they lack the skills to plan for its long-term use in the business. These shortcomings typically translate to small business use of the Internet, particularly in relation setting up web sites. This paper reports on the development and refinement of a model that links well known business planning and analysis tools, such as the SWOT analysis, with the creation and maintenance of the small business website. The model, developed in 2002, is updated to take into account recent developments in the usage of Internet technologies and some models highlighted in the international literature that target small business website development.

SOME BACKGROUND

There are many studies that examine the adoption of IT by small businesses. Although they do not necessarily provide a 'forward looking' viewpoint from the standpoint of presenting a means by which small businesses can then effectively adopt a website, they can provide a useful set of antecedents to help small business policy makers, consultants and even owner/managers to put into place those factors that may best assist them. For instance, Mehrrens, Cragg & Mills (2001) developed a model of Internet adoption for small businesses using an innovation theory approach. Lee (2004) examined a number of models related to IT adoption by small businesses, and tested a model of eight antecedents to Internet adoption in small businesses with a survey of 71 US small retail businesses. From studies such as these we know that factors such as the size of the small business (and therefore the resources they have at their disposal), the drive and IT skills of the owner/manager and employees, the existing systems within the business and external factors such as the availability of suitable infrastructure and external pressures (placed by groups such as customers and competitors) can affect the adoption of Internet technologies. In addition to this, small businesses need to have an appreciation of the types of benefits that websites can provide. At this early stage of the paper, the argument is made that a model looking to advise small businesses on the development and maintenance of their websites should consider these factors.

EXISTING MODELS

There are many published models (too many to mention here) that document how a 'typical' small business might build its website over time. Many of these are known as 'staged' website development models. There is a deal of support for the notion that small business website development generally commences with a simple brochure-type web presence and evolves over time to incorporate different

levels of sophistication and complexity. In describing staged models of adoption, Alonso Mendo & Fitzgerald (2005) suggest that they represent the early stages of Internet adoption by businesses gaining access via simple technologies (such as email) to dispense and gather information. Later stages refer to the creation of a basic web page, then the business moves onto publishing a wider range of information, marketing of products and possibly some after sales support. This is followed by e-commerce capabilities, where orders can be placed and perhaps paid for by customers. Finally, at the mature stages the business website is fully integrated with 'back office' systems. Levy & Powell (2003) do not necessarily support a 'stages of growth' model for Internet development and suggest that few small businesses even go beyond the early stages of website development. This is supported by Alonso Mendo & Fitzgerald (2005), who suggest that many small business web sites can remain in a 'dormant' state for months or even years. They criticise these 'staged' models on the basis that they are:

- Oversimplified
- Based on a (false) assumption that businesses progress from basic to more advanced use in a 'linear' fashion
- Lack validation
- Do not take into the diverse nature of small businesses
- Do not consider other theories (such as 'evolutionary' models)
- Focus too much at the industry level and not on individual instances.

Martin & Matlay (2001) refer to these types of models as 'linear' models and also argue that they may be too simplistic for the variety of small businesses in existence – suggesting that this variety can come in the form of business size, economic activity, location, resource availability and level of ICT adoption.

There are, however, some different approaches to developing models for website development and use. Alonso Mendo & Fitzgerald (2005) propose a multidimensional framework, that seeks to examine how small businesses change their websites (the process of change), what kind of changes they make (the content of change) and why they change them (the drivers of change) for the general purpose of understanding the evolution of their e-business practices. Fillis, Johannsson & Wagner (2004) proposed a conceptual model designed to help understand why some smaller businesses implement and develop e-business activities and others do not. Their model considers a range of internal and external factors that may impinge on attitudes to e-business and the implementation (or not) of an e-business strategy. Initially, the business is affected by factors such as government policy and globalisation, then industry factors. Within this environment, factors such as the size of the business, the types of products or services they offer and the set of business competencies within the business will influence either positive or negative attitudes to e-business and its eventual adoption or non-adoption. The model recognises that an adopter may choose to revert from e-business back to conventional business processes, or a non-adopter may eventually become an adopter of e-business. Again, this is more of an 'explanatory' model, but does identify some useful factors that should be considered.

Chaston & Mangles (2002) propose a model to support and deliver an e-commerce marketing strategy. Decisions in this model are based on a hierarchy, with financial and operational competencies being determined by the strategic positioning options chosen by management.

Once the strategic position is determined, the business must be able to fund the level of investment required to support their online marketing strategy. This includes having appropriate systems, having the resources to update the website, ensuring appropriate integration with existing business systems and ensuring that the website is promoted at a level to attract visitors. When the strategy has been

determined and the finances allocated, Chaston & Mangles (2002) suggest that the business needs to examine new ways of improving their Internet products and processes, ensure that the workforce are skilled to carry out the online activities, ensure that a high level of quality in relation to products and services and customer service and efficiency in relation to logistics is provided (as customers can more easily switch to other suppliers). This model provides an indication of the type of model that the author has in mind, to provide a set of (top down?) steps that a small business can use to properly integrate its website activities with its business strategy.

AN ATTEMPT AT A FULL PLANNING MODEL

In order to address some of these problems facing small businesses that wished to use the Internet to interact with customers, particularly those relating to a lack of proper planning techniques, the conceptual version of a model to guide small businesses (refer to Figure 1) was proposed in 2002 (Burgess & Schauder 2002). The model was based upon the major steps in other IT and e-commerce models. It represented at the time an attempt to address the specific needs of small businesses by guiding them through a proper planning process that was relatively easy for them to comprehend.

As a prelude to developing the model, Burgess & Schauder (2002) identified a number of steps that are common to models that can be used to assist firms to identify strategic IT ideas (such as those identified by Porter & Millar (1985), Barton & Peters (1991), Osterle (1991) and for electronic commerce opportunities by Marchese (1998) and Al-Moumem & Sommerville (1999)). These steps included a need for an initial, thorough business investigation of where the business stood in relation to its own resources and as part of a marketplace involving customers and competitors. This exercise can increase the likelihood that decisions made later in regards to web content are based upon a sound knowledge of business activities. This step involves a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis, which has traditionally been used for planning in the marketing or economics areas of the business. An analysis is performed on the various areas of the organisation to identify current or potential strengths and weaknesses when compared with other competitive forces. Then, actual or potential opportunities to gain strategic advantage or threats to the organisation's well being are identified (Kotler et al. 1989). This analysis provides the business with a picture of where it currently stands and the basis for making sound business decisions about the proposed website presence.

As part of the SWOT analysis, the firm's internal and (some) external forces (the activities of competitors and expectations of customers) were to be examined. Internally, the firm's resources in relation to time, money and expertise were considered, as well as the characteristics of the firm's goods and services. The firm's overall strategy was also examined, as a firm wishing to grow in size may

require a more 'aggressive' web strategy than a firm that is satisfied with its existing customer base. Finally, the Internet skill level of employees was determined. Externally, the web sites of competitors were examined, as well as the ability of customers to access the firm's web site and their expectations of the business.

Other steps of the model after the business investigation referred to identification of the firm's overall web site strategy, what web site features they were going to implement (facilitation), what method they used to implement these features, how they promoted the web site and how they evaluated its success.

It is important to note that this model is fundamentally geared towards the support of decisions about website content. Issues such as the selection of Internet Service Providers, security of the business website and design of the website are important considerations and will be included in later versions of the model.

RECENT DEVELOPMENTS AND A NEW MODEL

One shortcoming of the model is that it did not take into account the fact that many small businesses change their websites over time (the reader is referred back to the discussion of 'staged' models). Whilst they may not necessarily do this in the manner that many 'staged' models indicate (from 'brochure' through to full e-business integration) – there are often changes made in the website over time. Additionally, there are now many more options available to a small business when setting up their web presence. Many of these are associated with Web portals. For instance, a small accommodation business may wish to use the booking engine offered by specialised accommodation or regional portals, meaning that they can perhaps reach a wider market and will not need to concern themselves with the technology involved in online booking engines. In the case of small manufacturing firms, such as a winery, there may be attractions in using the online shopping cart features of a regional portal or industry portal. Again, this may provide access to more customers and lead to extra custom without having to be concerned about developing the shopping cart technology. A simpler example of an 'extended web' presence is when a small business provides its basic contact information to regional or industry portals. This can be quite inexpensive and, because the information does not change readily, is relatively easy to maintain. A more specialised example is where a business may wish to attract potential customers to a region, and realises that a regional portal has a listing of all of the tourist attractions and the latest events in the region. Why should they repeat these on their own website? They could rely on customers seeing this information as they link to the business through the regional portal, or perhaps more realistically provide a link back to the specific page on the portal. Let someone else worry about updating the information!

So – how can the model be updated to reflect the need to take into account that small businesses will probably change their website over time, and allow the business to consider what features of the 'extended web' will be used? **Error! Reference source not found.** represents the author's attempt to update the model to take these considerations into account.

The updated version of the model includes:

Figure 1. An initial model to assist small businesses to interact with customers on the Internet

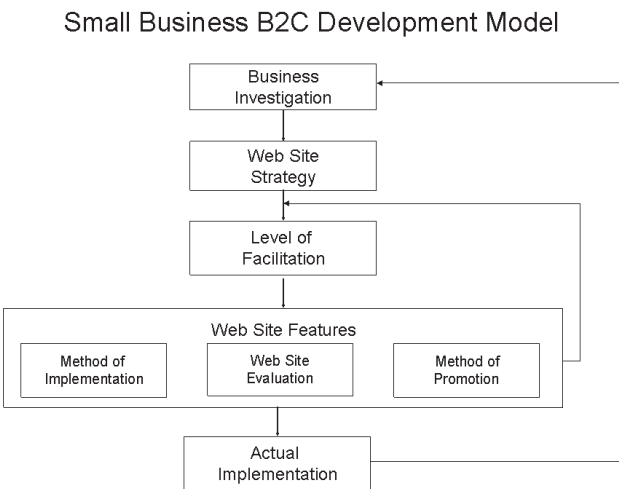
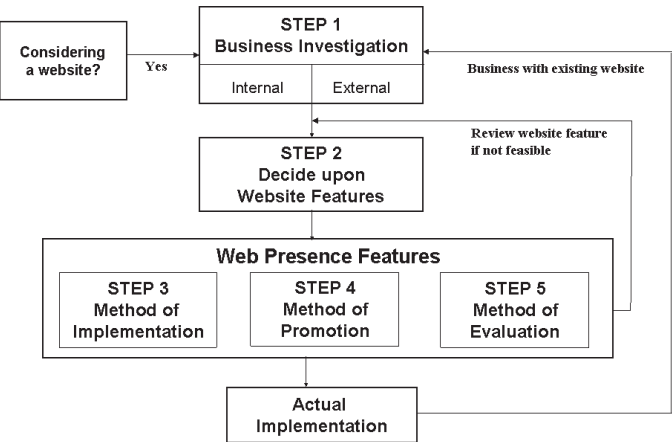


Figure 2. The revised, 'extended' version of the model



- The removal of the 'strategy' section from the earlier version of the model. This is now incorporated into the business investigation (SWOT).
- There are now two entry points into the business investigation phase. The first is where the business will be setting up a website for the first time. A detailed SWOT analysis will be needed here. The other entry is where the business has already been through the model and has already set up a website.
- The addition of a 'website audit' in the business investigation phase. This takes into account that the business may have already developed a website and may be considering changes to that website.

In the Website features stage, the decision of what features are to be placed on the website is re-evaluated each time the model is applied. The business may decide that it wants a particular feature on its website, but can also decide if it wants it NOW (or perhaps that it might be desirable in the future).

The 'method of implementation' phase has a step that includes consideration of the Extended Web. That way, if a business has decided to implement say, a shopping cart feature, it can use a shopping cart on an external portal if it decides it may not be suitable (or may even be too difficult) to implement on its own website.

MOVING FROM THEORY TO PRACTICE

[For this section of the paper I will move to discuss the development of the model in the first person]

One major problem faced in this project was how to take the theoretical model and turn it into a useful, applied model. The initial idea was to develop a manual or book that small businesses could work through and use to 'record' the results of the analyses that they carried out along the way. This would then lead to recommendations as to what web site features they should implement. There were two major concerns here if I was going to use a solely paper-based manual. The first was that if a small business person wished to go back and alter any of the data entered, he or she would have to use an eraser or liquid paper. The second was how to lead the person to the eventual recommendation at the completion of the analysis. I eventually determined that the spreadsheet package, Microsoft Excel, would provide the solution. Most small businesses that have computers use a spreadsheet package, and the majority of spreadsheet packages in use at the time were Microsoft Excel. The spreadsheet has long been recognised as a tool that can be used to support basic decision-making. It provides users with the capability to alter figures and to see the effects the alterations have on recommendations. In this case, it provided a means by which the path from analysis to recommendation could be handled automatically by the software. The programming language that is part of Microsoft Excel, Visual Basic for Applications, provided the flexibility to alter the software and the interface easily, based upon the suggestions of the micro focus group participants.

However, over time I realised that it was somewhat arrogant on my behalf to presume to make decisions about website content for small businesses, so the process has now been incorporated this into a handbook (the idea I originally shunned). I believe the best way to support small businesses with their decisions about their website presence is to provide them with as much information as possible and then let them make the decisions about content. The handbook contains many changes in the manner I approach the problem when compared with the spreadsheet – but the basic principles still apply – with the analysis carried out according to different website features. The following text is an extract from an early part of the handbook:

This handbook will encourage you to follow five steps in relation to planning and implementing your (or amending an existing) web presence. The analysis commences with a business investigation. If you do not have a web presence you will probably be performing much of this analysis for the first time. If you already have a web presence you may have performed some of this analysis before (perhaps without realising it) and you will certainly need to take an inventory of the website features you have already implemented. Either way, it is a good idea to perform these five steps on a regular basis, perhaps every 6-18 months.

After you perform your business investigation you will need to decide which website features you wish to adopt. After this, you will need to decide how and where you will implement your website features, how you will promote your web presence and how you will evaluate the performance of your web presence. Before you implement your web presence you may decide that some features are

not suitable (perhaps due to cost or difficulty of implementation) – you should review all of your analysis to ensure that your proposed web presence fits your business strategy before you go ahead and implement it (or make major changes if you already have a web presence).

At this point it is important to point out that this review is for the purpose of which website features you will wish to add or remove from your web presence. As you will have read in the Introduction it is important that you keep the content of your website up to date. This is something you will need to do continually – MAINTAIN your website. This is why the upcoming analysis will discuss the two aspects of each website feature you adopt. How much effort it takes to SET UP and how much effort it takes to MAINTAIN each website feature.

The handbook then leads the small business owner through the business investigation. One of the main tools used during the analysis is the *Website Content Checklist* (refer Table 1).

This is designed to provide the business owner with a snapshot of the primary information needed to make decisions about website content. The reader is requested to imagine that this chart is printed on A3 paper, mounted on a wall and can be written on with an erasable felt pen. The first column of the checklist represents a particular strategy that the business may wish to adopt in its web presence. The second column lists the particular website features that can help to achieve these strategies. From here on each of the columns are numbered and refer to a different part of the analysis. If the business already has a web presence, the features that are already available can be listed on column 0 of the checklist. Columns 1 and 2 are for information only – and refer to the level of skills or how much effort is needed to setup the feature (column 1) and maintain the feature over time (column 2). In this instance, 'effort' can refer to the amount of employee time that is taken in setting up and/or maintaining the feature. In relation to employee skills, website features range from being quite easy to implement (for instance, just typing in text) to quite complex (requiring advanced programming skills). If a business wishes to implement a particular feature that requires more skills than those available, it may wish to build its own employee skills capacity (perhaps through training), access the skills outside the business (perhaps through a consultant) or host the website feature on an external site where the skills have already been employed (for instance, on a portal). In relation to capital, it is quite inexpensive to host a website with simple features – but some of these features may require more employee time (and thus cost more) to maintain. More complex features will also generally take longer, and be more difficult, to set up. In this instance it is probably easier to provide some examples.

Here is another extract from the handbook:

You may not want to do all of these things with your website. There are two things that you really need to know about each website feature:

- *They can range from being really 'easy' (quick, inexpensive and requiring only basic skills) to quite 'complex' (time consuming, expensive and requiring technical skills) to set up.*
- *Some features can be really easy to maintain over time, some may be quite difficult – perhaps taking up valuable labour hours to keep them up to date.*

So, when you are considering what features to have on your website you need to think about how much effort it will take to implement them and how much effort you will need to put in to maintain them. In some cases a feature that is easier to set up may be harder to maintain. Here are some examples of different website features and how they might differ in relation to setup and maintenance:

- *Business contact details: it is really easy to put these up on a website and, since the business location and contact telephone numbers rarely change, they also require little maintenance.*
- *Product catalogue: on the surface it appears that these are quite easy to put on a web site. You can just enter the product details and price as plain 'text' – which is quite easy to do. The problem occurs if your products and/or their details change regularly. Each time they change you will need to manually change them on the website. However, if you keep a separate products database it is possible to link this with your website. Whilst this can be quite costly and complex to set up, the benefit is that any changes you make are automatically reflected on your website. So – one option is easier to set up but harder to maintain. The other is more difficult to set up but easier to maintain!*

Table 1. Website content checklist

Type of feature	What goes on the website	Exist Web Site Feat	STEP 1 - INTERNAL					STEP 1 - EXTERNAL		STEP 2	STEP 3 – Where will the feature go?				
			Employee skills/ Capital		Product and/or Service	Competitors have?	Cust-omers want?	You want?	Your Web Site		External Website				
			Ease of setup	Ease of mtce							Directory Service?	Industry Portal?	Regional Portal?	Other	
		0	1	2	3	4	5	6	7	8	9	10	11		
Your Contact details	Physical location (address)		E	E											
	A location map		E	E											
	Telephone/ Fax number		E	E											
	Your Email address		E	E											
Your product and/or service details	Form for customers to fill in to contact you		E	E	M										
	General product/ service details		E	E											
	Static product catalogue OR		E	E	M	C									
	Dynamic product catalogue		C	E											
Features for product and/or service support	A separate 'links' page		E	E											
	List local community events		E	E	M										
	Frequently asked questions (FAQ)		E	E	M										
	Instructions on how to use your product		E	E	M										
	Provide a specific email address for direct contact		E	M	C										
	Online bulletin board** (moderated?) for queries		C	M	C										
	Frequently asked questions (FAQ)		E	E	M										
	Instructions on how to use your product		E	E	M										
	Special online promotions		E	E											
	Online form to fill in to receive newsletters		M	M											
Build online community	Online bulletin board** (moderated?) for discussion		C	M	C										
Allow customers to place orders, pay for them and/or receive digital goods	Allow customers to print orders to then fax in OR		E	M											
	Allow customers to order via Online forms OR		M	M											
	Orders placed via a form and linked to a database of purchase orders OR		C	E											
	Customers can print a credit card payment form to fax in (combined with order form?) OR		E	M											
	Automated payment		C	E											
	Direct download		C	E											

Columns 1 and 2 can give a business owner an idea of the resources that they may need to devote to a particular website feature. It should be pointed out that in its published version the table is in code – with ‘E’ representing ‘easy’, ‘M’ representing ‘moderate’ and ‘C’ representing ‘complex’ to set up.

As part of the investigation, businesses are also expected to examine the particular characteristics of their products and services. For instance, do they produce products that can be easily mailed (such as books or CDs)? The business might consider implementing a shopping cart feature to allow customers to order their products online. Do they provide a service that involves digital goods (such as music)? There is already a significant market for online music delivery. Any particular features that the business identified might be suitable because of the products or services that they offer can be recorded on column 3 of the checklist.

Now the analysis moves to outside of the business. The model recommends that businesses examine the web presence of their competitors to see what features they are adopting. These can be recorded in column 4. Similarly, if customers have been requesting certain features to be added to the website (for instance, frequently asked questions) then these can be recorded in column 5.

Businesses are now in a position to make a decision about their website content. They know the basic types of websites features available and what they can do for the business from the first two columns of the spreadsheet. If they already have a web presence they know what features they have already implemented (column 0). They know how much effort they will need to put in to set up (column 1) and maintain (column 2) a particular feature. They know if their products or services are suited to a particular feature (column 3), what their competitors have on their websites (column 4) and what customers may be demanding from the website (column 4). They are now in a position to make up their mind about which features they would like on their web presence (and this can be recorded in column 6).

Although not the focus of this paper, the remainder of the columns (7 to 11) are there so that a business can represent *where* a particular feature is located – on its own website and/or on another website (such as a directory or a portal). Separate parts of the model examine promoting the website and evaluating its success.

Unfortunately the word limitations on this submission mean that the usual discussion about the implications of the model is somewhat curtailed here as the concentration of the latter part of the paper has been predominantly on its operation. The next phase of the development of the model is obviously to test it amongst small businesses – those new to implementing a website and those that have already done so.

CONCLUSION

This paper followed the development of a planning model for small business website development. The planning model, initially developed from models related to planning for effective use of information technology, has been refined after consideration of a number of recent small business website models (centred mainly around website content and adoption). When the antecedents to the successful adoption of Internet technologies in some of these models are combined

with the idea that small businesses often change their websites over time and now have more options as to where to ‘house’ their website features, a newer version of the model has been proposed. A practical example of how the model might operate through a handbook and website content checklist has illustrated how information can be presented to the business owner so that they can make their own decisions about website content.

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