ECOMMERCE WEBSITE VALUE MODEL FOR SMES

Ahmad Ghandour
Al Ain University of Science & Technology
P.O. Box 112612, Abu Dhabi, United Arab Emirates
ahmad.ghandour@aau.ac.ae

ABSTRACT

Small and Medium Enterprises (SMEs) continue to struggle to measure the success of their website. This results in ineffective eCommerce activities and the consequent disappointment in recognisable benefits. There is a need for a website operational model offering managers the ability to understand the payoffs from their investment. This paper presents an empirically proven intuitive eCommerce website operational model that offers managers a comprehensive way of understanding their website operation. The model premise is simple: the achievement of operational excellence will lead to improved financial performance. The central task for managers, then, lies in understanding what drives operational excellence and then committing the necessary resources to the development of the drivers. Managerial implications stemming from the empirical findings are also discussed.

Keywords: Website, eCommerce, Performance Measurements, Operational Measurements, Financial Measurements, Value Model, Value Creation, Goal Setting

1. INTRODUCTION

Businesses are increasingly investing in online trading. Small and Medium Enterprises (SMEs) are motivated to invest in this way of doing business and have a website for eCommerce. Indeed, eCommerce websites have proliferated, as managers are advised that trading online is an essential part of today's business practice and is now used by businesses across all sectors. Despite increasing attempts to trade online and the subsequent investments, managers still struggle to measure the success of their website. This results in ineffective eCommerce activities and the consequent disappointment in recognisable benefits. There is a need for a website operational model offering managers the ability to understand the payoffs from their investment. While achieving objectives is the ultimate purpose of

such websites, organisations are often only engaged in measuring users' behaviour on the website by using web analytical tools. This paper looks at the relationships between web analytic measures (operational measures) and the organisation objectives (financial measures). Furthermore, what drives those analytical measures is investigated. Such a model would not only further enhance management's ability to understand the payoffs from their investment, but also act as an indicator of the strengths and weaknesses of the website. An eCommerce website, however, is a sales channel (sometimes a business's sole interface) between the business, customers, and the world at large. In the contemporary competitive business environment, an innovative, well-designed and managed website can provide the advantage a business needs to conduct its eCommerce activities successfully. However, investment without returns leads not only to inefficiency and managerial dissatisfaction, but also to "out of business".

2. OPERATIONAL AND FINANCIAL SUCCESS

One of the central issues to website management is to measure its performance. Measuring the performance of a website has been proposed in many ways and various contexts over the past decade. In many instances, a single item or a collection of items were used to represent website performance. The performance of a website is commonly measured to gauge the extent to which the desired purpose has been fulfilled. Venkatraman and Ramanujam¹ provided a framework classifying the measurement of business performance as either financial or operational. Financial performance is at the core of the organizational effectiveness domain. Beyond this core lies operational performance measures that define a broader conceptualisation of organisational performance by focusing on factors that ultimately lead to financial performance².

Managers' perception of the accrued benefits is reflected according to their eCommerce website meeting its objectives. The objectives of the eCommerce websites are to market products/services and maximise profit/shareholder value by allowing transactions online with another party. Giaglis et al.³ observed that the most common methods of evaluating information technology investments is by way of established accounting techniques, such as Return on Investment (ROI). Others used cost-benefit analysis using accounting systems to measure the financial performance of a website^{4,5}. One layer of complication as indicated by Auger⁶ is that payoffs measures include those that reflect performance in the market, such as market share and market growth.

Operational measures, on the other hand, are those related to its traffic⁷, 8. According to Epstein⁹, traffic excellence on web-based business leads to

increased sales, improvement in sales, and dollar saved in expenses (cost saving), which will ultimately lead to profitability of the website.

Website traffic is the bread and butter for a web-based business and effectively running a business on the web would be diffcult without paying appropriate attention to its traffic¹⁰. A traditional storefront would pay a great attention to location because of the traffic it would bring; likewise, website traffic can be measured and increased to meet business needs. Different aspects of website traffic can be measured by monitoring clickstream data on visitor activities using web analytics tools and technology, such as Google Analytics 10,11, 12, 13. Such data offer a plethora of metrics from which businesses must carefully choose measures for different purposes¹⁴. By analysing visitors' clickstream data logs, web analytics tools provide a trail of the user's online activities and reveal the user's browsing and purchasing patterns. Once a trend can be seen, the website can be adjusted to improve the bottom line. For example, a website is not drawing the right people if visitors are leaving immediately upon arrival, for which the content needs to be adjusted. On the other hand, if the website is drawing the wrong crowed, then the marketing strategy may need to be altered.

However, for the purpose of this research, the different aspects of website traffic are captured by the different metrics available to owners who utilise clickstream data. These metrics are critical for assessing website activities and user behaviour. From a business perspective, such metrics may suggest where improvements can be made with regard to design, layout, and navigation issues¹¹. Despite the limitations of clickstream data¹⁵, detailed and concrete data on users' behaviour can be collected to indicate trends rather than provide definitive data/statistics on website traffic. Indeed, a reasonable measure could be determined by assessing whether the full functionality of a website is being used for its intended purposes¹⁶.

Because it is a free service that generates detailed statistics about the visits to the website, and because it is a user-friendly application, Google Analytics is commonly used to tell how visitors found the website and how they interact with it 10. Such tools, however, only provide raw metrics of limited benefit to businesses using them^{14, 17, 18}. Ghandour et al.¹⁹ established that raw metrics can be converted into meaningful information that correlate with business objectives.

3. WEBSITE VALUE CREATION

Despite their successful physical presence, businesses are investing in setting up websites to sell their good/services with the possibility of abandoning the physical realm, as trading online is becoming more popular.

Creating a website for such a purpose requires businesses not only to reflect their strategic initiatives, but also to create value for their customers^{20, 21, 22, 23}. Such value should result in a competitive advantage that is difficult to imitate and ultimately depends on customer appeal.

Amit and Zott²⁴ suggested that the value creation requirements for eCommerce are different from those of traditional business, and asserted that companies struggle to survive if they fail to communicate a value. Krishnamurthy²⁵ proposed an internet toolkit with 6Cs to deliver value. These are: Commerce (placing an order and making a payment online), Communication, Connectivity (reaching any user that is connected to the Internet), Community (through social media networks), Content (detailed information), and Computing (e.g., order tracking). Amit and Zott²⁴ also identified four key value drivers: efficiency (e.g., reduce information asymmetries between buyers and owners), complementarities (value creation can be leveraged when bundled with complementary products from other suppliers), lock-in (the ability to prompt users to engage in repeat transactions), and novelty (the introduction of novel processes).

In the online environment, however, users are using commercial websites for informational, transactional, and/or services purposes^{26, 27}. Hence, businesses can create value when delivering these functions in terms of technology delivery, product delivery, and customer delivery process²⁸. Porter²⁹ described how the internet creates value for businesses by providing a standardised infrastructure, an intuitive browser interface for information access and delivery, bidirectional communication, and ease of connectivity. Constantinides³⁰ argued that the 4Ps paradigm is a poor choice in the case of online marketing and suggested a web-marketing mix framework as an alternative. Krishnamurthy²⁵ suggested a five-step process to deliver value to the user: 1) identify how different consumers perceive value; 2) choose which value element will be delivered; 3) provide the value and state how value is being delivered; 4) help users learn about the nature of the value; and 5) assess how users perceive the value being delivered.

According to Zhu & Kraemer²², businesses invest in their websites to reflect their strategic initiative to use the web to engage with customers. When a business decides to go online, its presence must be appropriate to the needs of the business and should focus on supporting its business goals. A website for eCommerce is a transactional one as it sells its products/services online. In general, selling involves creating value that confers a competitive advantage which is difficult to imitate and produces customer appeal. In addition, such a website serves as a communication channel for bidirectional information transfer and communication, a platform for transacting, an interface for providing customer service, and a

facilitator for marketing initiatives. However, creating a website according to Thelwall³¹ is a business issue rather than a technical task.

Value can therefore be created by assigning a mix of these requirements and suggestions. The outcome is a website that is differentiated from competitors' sites, able to create awareness, generate traffic, and drive sales. To do so, the process does not have to be complicated. In fact, the major benefits can be obtained by going through a relatively simple process. This process requires careful consideration of following four elements and establishing a method for ensuring a unique proposition:

3.1 Goal Setting

It is good practice to outline strategic goals as part of the business strategy. Goal-setting serves the purpose of establishing a measure for evaluating the current performance of a business. This will not only set priorities, but will keep the business focused and away from distracting activities that drain business resources and accomplish little32. Although setting a goal may seem simple and straight forward, it requires the business to engage in strategic planning. While the first step is to transform goals to objectives, the process of strategic planning involves a detailed analysis of internal resources, external forces, and core competencies of the business. The outcome of this process is a specific plan selected and implemented. Finally, evaluation should be undertaken³³.

In an online environment, these goals involve choices that position the business in the global information technology market²¹. Goals are a high-level purpose of a website, such as "return a profit", which can be translated into lower-level objectives. Objectives can include: increase sales, generate leads, build brand awareness, reach new markets, and provide consumers with information on products. These objectives will form the basis for the online activities the business is likely to be involved in. However, the objectives, the related goal, and subsequently the online activities will be refined according to the detailed analysis of the internal resources, external forces, and technology.

Internal analysis deals with identifying internal strengths and weaknesses related to conducting business online, analysing business processes and the users' requirements, and developing information architecture. External analysis is concerned with analysing business opportunities and threats. Technology analysis deals with analysis of technology trends and their impact on the business²¹. The analysis provides some insight into the business's online offering and dictates the purpose of the online activities including the website. Purpose then becomes the

foundation of each website section, which defines the content, the look, and feel of the section. Having a clear purpose helps visitors understand what the site is offering. The effectiveness of the website can be measured by the extent a set of goals pursued by the organisation are achieved.

3.2 Website

Unlike a physical store, a website is conveniently open 24/7 and reaches local, national, and international customers. As selling can create a unique value that determines a competitive advantage, it can be difficult to imitate. Zott et al.²³ identified two strategies for value creation in eCommerce—the efficiency that eCommerce business models exhibit, and the degree to which they create "stickiness". The efficiency is reflected through "what" a website offers, while attracting customers to a website is created through "how" it makes the offer to effectively meet the expectations of both users and the owner of the site¹⁷. Website offer (what and how) is intended to communicate an organisational image and product branding, to inform visitors about the site, to support access to information and knowledge, to support sales, and to enhance customer service^{19, 34}.

Much research has been conducted into which attributes should be included in a website. These attributes are: to convey information on the website that is current and of value to potential customers. Visitors need useful and necessary information to make a purchase decision as easy as possible 35, 36, 37. Personalised for visitors, a website recognises visitors and presents information to them based on their previous visit 22, 35, 38, 39. Efficient navigation, which is the flow of the site due to its professional design, addresses users' need to be comfortable to move around the site easily; every page must have consistent navigation links and safety in terms of security and privacy 22, 38, 39, 40, 41, 42, 43. It must be customisable to each visitor 22, 35, 38, 39, efficient navigation 34, 38, 42, 44, 45, 46, 47. It must also be simple, easy-to-use and well-organised 34, 38, 42, 44, 45, 46, 47, have clearly defined security and privacy policies, which provide secure payments and terms and conditions 35, 38, 40, 41.

Additionally, online technologies improve a business's immediacy and responsiveness, both of which strengthen customer relationships while broadening its coverage in the marketplace^{48, 49}. Treacy & Wiersema⁵⁰ have suggested that eCommerce transforms businesses into a customer intimacy discipline delivering not what the market wants, but what a specific customer wants. The customer-intimate company makes a business of knowing the individuals it sells to and the products and services they need. Thus, through their unique value propositions they create the best solution for each customer to cultivate relationships in order to build the business through customer satisfaction and, ultimately, loyalty. The online user,

however, cannot interact with the product. Thus, a substitute is needed to enhance product knowledge. The provision of services on the website replaces the sales person from a traditional business. Users, therefore, need to know who they are dealing with and need help with product selection, i.e., all the information they would have if they were shopping physically⁵¹. Customer service is one of the key factors in determining the success or failure of eCommerce. A high standard of customer service is the means by which the potential benefits of eCommerce are realised⁵². Equally important is to include functionalities not only to engage customers, but to keep their experience as positive as possible. Thus, eCommerce websites should include functionalities to share information, facilitate transactions, and improve customer service²².

Once the website is up and running, owners are interested in determining if their site meets their goals and is performing to their expectations^{53, 54}. Owners, however, perceive their success to be the value their website creates for their customers.

It is also vitally important to review competitors' websites to assess if they are outperforming and to check SEO rankings. If a competitor is ranking higher on search engines, SEO optimisation should be undertaken.

To get an accurate indication of who is using their website, firms measure the website's traffic. By using tools such as Google Analytics, it is possible to see where most customers are coming from, what they are doing on the website and how long they are doing it. The information obtained will give a good indication of which customers are visiting the website and what they are doing when they are there.

The business needs to understand if their offering appeals to visitors. If it is not optimal, an adjustment may be needed, such as adding or deleting some of their online offering. However, poor sales may result from other problems related to the online offering's effectiveness. Complete understanding requires looking at other areas that positively impact users' experiences to the point of influencing a user's purchase intention. According to Hong¹⁷, this is the "how" aspect of the offering, which refers to the business's efforts to make their website visible, usable, and maintained³⁴.

3.3 Marketing

Owners need to understand that simply having attributes on their website does not mean that customers will visit. Customers seek websites that are relevant to their needs and tend to stay if the website meets these requirements¹⁹. Online businesses, as with traditional businesses, require marketing. No matter how great a website is, if no one knows about it, it is a waste of valuable resources. Businesses should be involved with activities such as informing visitors of the site in order to increase users' experiences. Marketing activities by the business are required to make their website visible, usable, and maintained^{31, 34}. This is how businesses leverage their investment in their website to create unique online resources²².

The issue of visibility is one that is easy for the inexperienced to ignore. An otherwise excellent website may be completely ignored because few potential customers ever find it³¹. Visitors can be directed to a website through offline advertising^{34, 43, 55, 56, 57, 58} or by following a link from another site^{34, 43, 56, 59}. More importantly, SEO and search engine marketing (SEM) are the primary ways to boost visibility of the website⁶⁰, or by modern social interaction media like Facebook, Twitter, YouTube, etc.^{4, 61}. These activities allow you to target your lead search very precisely and therefore often result in better quality leads.

Another essential practice is to keep the site maintained and up-to-date. Visitors will quickly leave a website that has not been maintained $^{31, 38, 56, 62, 63}$

Website visits and sales are can be generated by offline promotion⁵¹. A website that features price-based promotions (discounts, special offers, and rebates) and non-price promotions (what's new) attracts visitors' attention and increases their intention to transact⁶⁴. Moreover, a website is intended to enhance the users' knowledge. According to Song and Zahedi⁶⁴, the website should enable users to seek more information, customise the mix according to their needs, and provide payment and receiving options.

3.4 Internet Security

Internet users have great concerns over how websites handle security issues. Serious consequences include website abandonment and spreading negative feedback about the website³⁵. Internet security concerns are associated with purchasing behaviour, satisfaction with the website, and the feeling of trust in the website. It is a common threat to businesses and it is important to recognise the threats and respond appropriately. Businesses need to consider all the steps needed to ensure that their online activities are conducted in a secure way. This also should be clearly conveyed to visitors of the website.

4. WEBSITE VALUE MODEL

According to Segars & Grover⁶⁵, multiple, interrelated success dimensions are more likely to capture changes in performance than one single item or even a set of financial measures. The three concepts discussed

above affect the overall performance of a website. The change of website performance is due to the change in any of these three concepts.

A high-level framework of three tiers as in Figure 1 guided the general inquiry of the current study. These tiers are website offerings, website usage, and website payoffs. At first, a website is created with all desirable design attributes along with the marketing practices that makes it visible, usable, and maintained. These are the resources in the business that create a sustainable competitive advantage and the value to the user^{30, 39}. According to Turban and Gehrke⁶⁶, the effectiveness of such a proposition can be seen in the website performance in terms of its traffic, sales, and awareness. A business is satisfied if positive results are obtained.



Figure 1. eCommerce website value model

5. RESEARCH DESIGN AND METHOD

This research employed an online survey sent out by email to businesses engaged in eCommerce. The intended population for this study was online businesses within New Zealand. A total of 1,093 emails were sent out, and 344 responded, giving a 31.47 % response rate.

The study used perceptual measures to capture data on the operational measures, financial measures, and on the eCommerce website driver's measures. Respondents were asked to rate the importance of each attribute and then rate their perceived success in that particular attribute. The resulting composite measure (importance x perceived success) is referred to as effective performance measure, eCommerce website drivers measures are shown in Table 1.

Operational measures are those metrics available to managers. Respondents were asked to rate the importance of these metrics on a five-point Likert-type scale, where 5 represents very important, and 1 represents not important. Respondents were also asked to rate the

performance of that particular metric on a Likert scale where 1 represents that the website performance is worse than expected, and a 5 when website performance is better than expected. The survey asked the respondents whether they are actively involved in monitoring their website. If they were not actively monitoring the site, the survey was terminated, and if they do a set of 8 metrics, they were then asked to complete the survey. Only 230 responded (to this particular question) of which only 225 responses were usable ones.

<u>Financial measures</u> of the website were measured by using a multi-item scale used by Auger⁶.

Table 1. eCommerce website excellence checklist

Website	Driver Measures				
Driver	Driver Measures				
Goal Setting	What are the goals of your business strategy?				
	What are the objectives of your website?				
	What online activities are you undertaking to achieve goals and objectives?				
	How regularly do you review your online activities?				
Functionalities	What functionalities are included in your website?				
	How much do you spend keeping the website up-to-date?				
	Are you attracting the right customers to your website?				
	Do you allow your customer to transact online?				
	How do you deliver and exchange information with customers?				
Marketing	Do you have a marketing plan?				
Plan	What marketing activities are you undertaking for your website?				
SEO	What do you do to make your website more search engine friendly?				
	How high does your website currently rank on search engines?				
SEM	Are you currently undertaking any search engine marketing?				
	Are your SEM activities generating the results you want?				
Social Media	Are you using social media networks?				
	What benefits are gaining from social media?				
Maintenance	How often do maintain your website?				
	Is your website up-to-date?				
Security	Have you identified internet security threats that most apply to your online				
	business?				
	What security precautions have you taken to protect your website?				

The model was tested using the two-step approach of Structural Equation Modeling (SEM) where the structural model and measurement model were separately analysed. A set of measurement models was used to determine indicators that capture each construct and a structural model was used to determine the relationships between concepts. Each measurement model was tested in isolation, then factors forming the endogenous variables, followed by factors forming the exogenous variables were each separately tested, and finally a collective network was determined and tested.

6. RESULTS

6.1 Measurement Models

To examine an acceptable fit of the proposed measurement models, each of the constructs was evaluated by examining the statistical significance of each estimated loading, and the overall model fit indices were evaluated. All indicators with loading below the cutoff value of 0.5 were deleted⁶⁷. Model fit uses the following fit indices CFA, GFA, and RMSEA with the values $> .9, >0.9^{68}$, and $< 0.08^{69}$ respectively. The four constructs along with their captured indicators have established in the measurement models as shown in Table 2.

6.2 Exogenous CFA Model

While the measurement models define the relationships between the observed and the unobserved variables, CFA specifies the pattern by which each measure loads on a particular factor given more than one latent factor which is then tested for validity using CFA procedures⁶⁸. Design attributes and marketing practice were then tested as the exogenous with CFA. While the model shows a good fit, the correlation between the two concepts is high (0.87), indicating a substantial content overlap among design attributes construct and marketing practice construct. In an effort to address this problem, all variables were allowed to load into one factor. The theoretical interpretation of this collapse is an overall trait of website investment. Importantly, one construct is merely explaining what the site actually is in a more parsimonious way. According to Hong¹⁷, a set of attributes capture website value, i.e., the website is a concept with a unique proposition comprised of a mix of attributes determined by how much investment has been put into it. Investment is captured by 10 variables and is fitted to the data satisfactorily as displayed in Table 2.

6.3 Endogenous CFA Model

Another set of factors (usage and payoffs) were also tested as endogenous. The results show that these two factors are distinct. Seven indicators represent the usage of the website and four indicators represent the financial returns of the website. Data is fitted satisfactorily.

6.4 The Full Model

The full model is a combination of the two CFA models discussed above. The result shows that three distinct dimensions of a website explain the change in performance of the website. The fit indices indicate relatively good fit. The result of this process is a reduced set of reliable and unidemensional items.

Table 2. Measurement and CFA models

Factors	Indicators	Measurement loadings	CFA loadings	Full model Loadings	CFI	GFI	RMSEA
Websi	te drivers				0.96	0.95	0.06
	Business goals	0.64	0.63	0.62			
	Business	0.73	0.58	Deleted		0.97	0.07
Goal setting	objectives	0.73	0.38	Defeted			
	Online	0.58	Deleted	Deleted	0.97		
	activities						
	Regular	0.61	Deleted	Deleted			
	reviewing						
	Functionalities	0.73	0.72	0.70			
	Time spent	0.59	0.59	Deleted			
	Right	0.68	0.68	0.67			
Content	customers	0.00	0.00	0.07			
	Transacting	0.61	0.61	0.60			
	online	0.00	****				
	Information	0.60	0.58	Deleted			
	exchange	0.65	0.65	D 1 . 1			
Security	Threats	0.65	0.65	Deleted			
	Precautions	0.69	0.69	0.64			
	Offline Links from	0.59	Deleted	Deleted	0.99 0.9		0.04
	other	0.59	Deleted	Deleted			
	SEO	0.61	0.62	0.64			
Marketing	SEM	0.01	0.62	0.59		0.99	
	Social media	0.78	0.51	0.59			
	Maintained	0.78	0.58	0.62			
	Up-to-date	0.71	0.69	0.67			
	Timeline	0.71	0.07	0.07	0.97 0.96		
	targeted	0.65	Deleted	Deleted			
	visitors						
	Visitor	0.60	0.60	0.60			
	conversion	0.69	0.69	0.68			
0 4 1	Website	0.60	0.66	0.63		0.96	0.05
Operational	Relevance	0.69	0.70	0.71			
	Stickiness	0.71	0.68	0.70			
	User	0.59	0.57	Deleted			
	environment	0.39	0.57	Defeted			
	Reach	0.54	0.55	Deleted			
	Bounce rate	0.65	0.62	0.60			
	ROI	0.86	0.86	0.85	·	0.98	0.06
Financial	Online sales	0.88	0.88	0.81			
	Profit	0.92	0.92	0.93	0.99		
	Cost reduction	0.62	0.62	0.63	0.99		
	Market share	0.71	Deleted	Deleted			
	increase	V., I	20.000	20.000	0	0	0 ~ .
Full model					0.96	0.90	0.04

6.5 Reliability and Validity

Beyond examination of the loadings for each indicator (unidimensionality), the measurement model is further assessed for reliability and validity.

The composite reliability for each construct (CCR) are: 0.84 for website offer, 0.81 for usage, and 0.85 for financial returns. The composite reliability of all latent constructs exceeded the benchmark of 0.7 recommended by Hair et al.⁶⁷. All Average Variance Extracted (AVE) were above 0.5, indicating convergent validity of all constructs.

In addition, the analysis results showed that the squared correlations for each construct are less than the variance extracted by the indicators measuring that construct, as shown in Table 3, indicating the measure has adequate discriminant validity. In summary, the measurement model demonstrated adequate reliability, convergent validity, and discriminant validity.

	Offerings	Operational	Financial
Offerings	0.51		
Operational	0.65**	0.53	
Financial	0.543**	0.572**	0.66

Table 3. Discriminant Validity

Off-diagonals are the constructs correlations (squared).

7. CONCLUSION AND IMPLICATION

This study has focused on developing an operational model of eCommerce website value creation. The model was tested in small businesses in New Zealand. The model premise is deceptively simple: that is the achievement of excellence in those metrics that are available to the business through the web analytics tools will lead to achieving website objectives. The central task for managers, therefore, lies in understanding what drives those metrics in the eCommerce realm and then committing the necessary resources to the development of the drivers.

The result shows that a website needs not only to meet the visitor's expectation in terms of design, but also a marketing strategy in order to attract the targeted visitors. Design attributes and marketing practice both merged to form one concept that drives the usage of the website. It is important to be aware of growing trends in marketing, such as using social media to promote the website, as part of marketing practices.

^{**}Correlation is significant at the 0.01 level (2-tailed). Diagonals are the value of average variance extracted (AVE).

In the same way, the study developed the website operational measures based on the metrics available to the business. Website traffic is not all about how many visited the website; it has more to do with the quality attracting the targeted visitors who ultimately will convert into clients. The findings support the evidence that success along those metrics is related to the financial benefits of the website.

With this operational model, businesses are able to monitor the performance of their website. The framework and the resulting scale (19 measuring items) could be used as a diagnostic tool to identify areas where specific improvements are needed and to pinpoint areas that require work. Long-term tracking provides warning signs if some item's performance falls below the safety line. The resulting model offers managers a comprehensive way of rethinking eCommerce website operations. The study provides only a guiding principle to recognize benefits. The scale items are indicative and might change over time due to dynamic changes of eCommerce and the fast pace of technology. Businesses can still use the model to develop relevant business strategies and tactics and set clear policies along the guiding principle provided by this study, as follows:

If the payoff is less than expected and their investment is also less than expected, this is, of course, cause for concern; the value driver then has to be looked at closely. When the business payoff's perceived success is less than expected but the investment is at or more than expected, this suggests potential to be exploited and more advantage can be gained. If the business payoff's perceived success is more than expected and investment is less than expected, this will be for a short term and more investment is needed if future gains are to be realised. Finally, if the payoff's perceived success is more than expected and their investment is at or more than expected, then the ultimate goal is achieved and the objectives are to maintain such a position to continue reaping benefits from being online. Figure 2 provides a graphical view of the above scenario.

This study was tested in a Small and Medium Enterprises (SMEs) context where subjective data were collected from owners. Further directions for future studies could include objective measures and present a comparative analysis. Further studies could also be based on the management-based views and get more data of expectation from enterprises.

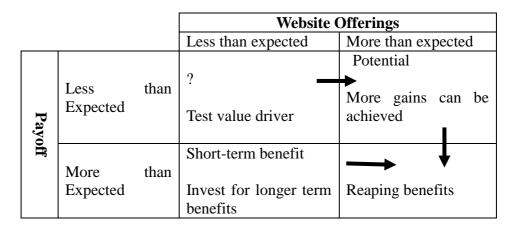


Figure 2. Applying the value model

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