AN INTEGRATED PERSPECTIVE ON SOURCES OF E-VALUE

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ABSTRACT

The Internet provides an abundance of new opportunities for innovative businesses and wealth creation. The large number of e-business failures attests however, that it is by no means easy to make a success online. One obstacle hindering e-business start-ups is the ambiguity in which value creation in e-business is shrouded. Its consequence is the formulation of ineffective strategies that ultimately result in failure. In order to provide greater clarity on the subject and thereby assist e-business start-ups, this paper proposes an integrated perspective on sources of e-value creation. The nature of the research is exploratory, made use of inductive reasoning, and drew on existing e-value creation and generic value creation literature to develop its integrated perspective. The resulting model was subsequently refined through feedback obtained in one-on-one interviews with academics and practitioners in the domains of e-business, strategy, innovation and entrepreneurship.

The result of the research endeavour was a model named “18 sources of e-value”. The identified sources of e-value include 12 predominantly functional sources, namely (1) effectiveness, (2) affordability and cost reduction, (3) range and complementarities, (4) reach and accessibility, (5) findability, (6) timeliness and immediacy, (7) authenticity, trust and security, (8) richness of information exchange, (9) interpretation, (10) simplicity, (11) convenience, and (12) customer empowerment. Six predominantly emotional sources of e-value were also identified and these include (13) novelty and newness, (14) aesthetics and brand attractiveness, (15) embodiment, (16) individualisation, (17) connectivity and socialisation, and (18) personal fulfilment.

These 18 sources of e-value inform our understanding of value creation in e-business and therefore enhance our ability to develop strategies for the e-domain and enhance our ability to compete in the e-domain. More importantly, the 18 sources of e-value can serve as a sound basis for spurring further theoretical conversations about the vital topic of e-value creation.

Key words: E-Business, Value Creation, E-Value, Sources of Value, Integration

INTRODUCTION

The Internet provides an abundance of new opportunities for innovative businesses and wealth creation (Manyika & Roxburg, 2011, p. 1). As a result, many new entrants are attracted to the e-environment. The large number of e-business failures attests however, that it is by no means easy to make a success online (Entrepreneurship 2020 Action Plan, 2013, p. 13). Between 30 and 80 percent of e-business start-ups fail within the first five years of operation (Knaup & Piazza, 2007, p.
6; Song et al., 2008, p. 8; Gompers et al., 2010, p. 19; Ghosh, 2012; Hathaway, 2013, p.21), and some sources even quote failure rates of up to 85 percent within 10 years (Luo & Mann, 2011, pp. 19, 23).

One obstacle contributing to these failures is the ambiguity in which value creation in e-business is shrouded. Value itself is an elusive and fickle concept as it is a relative term that is influenced by a customer’s perceptions. It can be defined as the greatest amount of money that a given customer would pay for a product and/or service offering (Golub & Henry, 2000, p. 47). Stated differently, an offering will be regarded as good value for money when its benefit, utility or gain outweighs its price. The price of the offering need not only be considered in terms of monetary compensation though. The price could also imply a trade of some sort, an investment in time, or the effort required to obtain the offering. The problem that a vague understanding of e-value creation poses to entrepreneurs is that they are not able to formulate strategies that cater to customer needs and thus effectively compete online. Its consequence is sub-optimality and in some cases, even failure.

Lanning and Michaels (2000, p. 53) stated that “delivering superior value – through higher benefits, lower prices, or some combination of the two – lies at the heart of any winning business strategy”. Lee and Vonortas (2002, p. 165) similarly noted that “in order to prosper in e-commerce, a firm’s Internet business model must capitalize on the “disruptive” attributes and characteristics of the Internet and digital economy to enable it to offer more innovative solutions and value to customers”. What is therefore needed is a clearer understanding of the sources of e-value to allow entrepreneurs to purposefully pursue these and thereby create extraordinary value propositions and businesses.

Although there have been previous attempts at identifying such sources of e-value, established literature vary in the factors that they propose and as of yet, no consensus on these exist. Further, though e-value creation literature is still in its infancy, it has matured enough to permit attempts towards greater integration. This paper therefore explores existing value creation literature to identify those marginally actionable factors that create value in the e-environment in order to develop a more integrated perspective on sources of e-value.

METHODOLOGY

This investigation forms part of a forthcoming PhD thesis called “a competitive strategy framework for e-business start-ups” that seeks to assist e-business start-up competitive strategy formulation. As such, the integrated e-value model naturally adopts the same research methodology as the larger study. The basic premise that the larger study is founded on is that the insights and tools that e-business start-ups need to better formulate their strategies largely exist, however these are fragmented and disjointed in literature. Then, given the large amounts of strategy literature available and strategy’s sometimes paradoxical nature, it becomes almost impossible for non-strategy experts to sift through and make sense of. The opportunity for integration and strategic sense-making thus exists in order to make the relevant insights and tools more accessible, while deepening our understanding of the domain (in this case, e-value creation).

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1 Competitive strategy refers to the strategic aspects that deals with how a business intends to compete in the market and defend its chosen competitive position (Porter, 1980, pp. xxiv, 4).
Research Design

The nature of the research is exploratory and made use of inductive reasoning to expand and refine existing theories. It can therefore be classified as a theory and model building study as per Mouton (2011, p. 144)’s research design taxonomy. The research made use of a mixed methods approach that incorporated both textual and numeric data to construct the theoretical model. In conducting the research, the study drew on the principles of systems engineering. Systems engineering is an interdisciplinary field that utilises a systematic, iterative and holistic approach to design high quality technical systems (Sage, 1992; Forsberg & Mooz, 1995; NASA Systems Engineering Handbook, 1995; Haskins, 2006, pp. 20–22). Its principles are broadly applicable to non-technical systems though, and were deemed suitable as the study sought to produce a conceptualisation (in this case, an e-value model) that functions as an integrated, coherent whole. Similar to a typical systems engineering process, the model building process involved (1) identifying requirements from literature that had to be fulfilled, (2) developing the theoretical model at increasing levels of detail, and (3) verifying and validating the model at each of its levels. This latter phase also initiated two iterative cycles of improvement where insights gained during each round of validation (discussed later) were employed to refine the model.

Sources of E-Value Model Requirements

Considering the above three points in sequence, several characteristics of good theoretical models were identified as requirements for the e-value model from a review of theoretical model building and research design literature. These requirements are shown in Table 1 below.

Table 1 – Sources of E-Value Model Requirements

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<thead>
<tr>
<th>Model Requirement</th>
<th>Reason for Inclusion</th>
<th>References</th>
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<tbody>
<tr>
<td>1. Defined purpose</td>
<td>The purpose the e-value model needs to be stated</td>
<td>(Dubin, 1976, p. 26; Whetten, 1989, pp. 490–492; Camarinha-Matos &amp; Afsarmanesh, 2008, p. 2457; Mouton, 2011, pp. 176–177)</td>
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<td>5. Utility</td>
<td>The e-value model needs to fulfil its objective; be fit for use; and possess predictive power. The elements of the e-value model also need to have individual and collective merit and usefulness.</td>
<td>(Lewin, 1952, p. 169; Kerlinger, 1986 p. 45; Nunamaker &amp; Chen, 1990, p. 90; March &amp; Smith, 1995, p. 261; Torrance, 1997; Kuhne, 2005, p. 2; Gay &amp; Weaver, 2011, p. 29; Mouton, 2011, pp. 176–177)</td>
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<td>8. Comprehensiveness</td>
<td>The e-value model should be as inclusive and complete as possible with respect to</td>
<td>(Guba &amp; Lincoln, 1994, pp. 105–113; March &amp; Smith, 1995, p. 261; Fox &amp; Gruninger, 1998, p. 113; Whetten, 1989, pp. 490–492)</td>
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<td>existing literature, and be more sophisticated than previous conceptualisations</td>
<td></td>
<td>(Dubin, 1976, p. 26; March &amp; Smith, 1995, p. 261; Fox &amp; Gruninger, 1998, p. 115; Mouton, 2011, pp. 176–177)</td>
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<td>9. Simplicity and understandability</td>
<td>The e-value model and its elements should be understandable to promote its ease of use</td>
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<td>10. Parsimoniousness</td>
<td>In direct contrast to comprehensiveness, the e-value model should also attempt to fulfill its objective by utilizing the minimum amount of elements and be as elegant as possible</td>
<td>(Eisenhardt, 1989, p. 532; Whetten, 1989, pp. 490–492; Gay &amp; Weaver, 2011, p. 24)</td>
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These requirements were deemed a suitable criteria for evaluating the quality of the developed e-value creation model from a constructivist\(^\text{ii}\) and pragmatist\(^\text{iii}\) philosophical perspective. Although subjective judgment was used to assess whether the developed e-value model fulfils the above requirements, confidence in its academic rigour was provided by the fact that the assessment is grounded in and was developed directly from literature (as can be seen in Appendix A). It must be noted that it was never the goal to be completely exhaustive in the extent of value creation literature covered, as such a goal is simply impossible to achieve. It was the intent however, to study the literature in sufficient detail to be able to present a more integrated and sophisticated perspective on e-value creation.

**Developing the E-Value Model**

Amit and Zott (2001, p. 493) proposed that “no single entrepreneurship or strategic management theory can fully explain the value creation potential of e-business. Rather, an integration of the received theoretical perspectives on value creation is needed.” As such, in developing the integrated perspective of sources of e-value (eventually named the 18 sources of e-value), various value creation perspectives were investigated, including a resource based view (Barney, 1997), a market based view, a Schumpeterian innovation view (Schumpeter, 1942), a strategic network view (Gulati, Nohria, & Zaheer, 2000), a transaction cost theory view (Hagel & Singer, 1999), and a value chain analysis view (Porter, 1985). Though these perspectives highlight interesting approaches from which to consider value creation, they themselves do produce explicit factors that indicate what the sources of value creation in e-business are.

In the pursuit of identifying the sources of e-value, three praiseworthy e-specific models were found namely Amit and Zott’s (2001) sources of e-value creation, Wells and Golebi’s (2003) 3R framework and Kelly’s (2008) eight generative qualities.

Amit and Zott (2001, p. 504) postulated that the sources of e-value creation consist of four interdependent factors, namely novelty, efficiency, lock-in and complementarities. Wells and Golebi (2003, p. 6) on the other hand, postulated that three factors predominantly influence an e-business firm’s performance, namely its reach, richness and range (3R framework). Lastly, Kelly (2008)...

\(^{\text{ii}}\) Constructivism embraces multiple truths and realities and advocates ontological (what constitutes the nature of being or reality) and epistemological (what constitutes truth or knowledge) relativism rather than realism. Progress from this perspective is contingent on whether the developed construction is more informed and sophisticated than predecessors (Guba & Lincoln, 1994, pp. 109-11).

\(^{\text{iii}}\) Pragmatism advocates practical utility above all else (Lewin, 1952, p. 169; Gay & Weaver, 2011, p. 29)
identified that one of the largest problems that e-businesses face is that many offerings offered online are free and ubiquitous. This acts as a huge destroyer of value to firms who want to profit from their online ventures. Consequently, to effectively compete in the e-environment value has to be created that customer will pay for. Kelly then identified eight factors that customers will pay for. He calls this assembly of factors generative qualities, as it represents qualities that have to be fostered over time and cannot simply be copied, replicated or reproduced by the mere click of a button. His eight generative qualities consist of accessibility, immediacy, personalisation, interpretation, authenticity, embodiment, patronage, and findability.

In addition to the above sources of value, generic sources of value creation were investigated as well. Generic sources of value are applicable to all industries and therefore also to e-business. From the reviewed literature, three models that relate to generic sources of value stood out as particularly useful. These include the generic levers of utility of Kim and Mauborgne (2000), obliterating barriers to consumption principles of Johnson, Christensen and Kagermann (2008), and the generic sources of value of Osterwalder and Pigneur (2009).

Kim and Mauborgne’s (2000, p. 133) generic levers of utility consists of customer productivity, simplicity, convenience, risk reduction, fun and image, and environmental friendliness. Johnson, Christensen and Kagermann (2008) on the other hand suggest that companies should adopt a “jobs-to-be-done” mind-set and create value for customers by breaking through the barriers that currently inhibit their consumption of products or services. Johnson et al. (2008, p. 62) highlight four common barriers to consumption, namely insufficient wealth, insufficient access, insufficient skill and insufficient time. The sources of value can then be derived from these as consisting of affordability, accessibility, simplicity and timeliness. A fifth factor, convenience, can also be added to this as Johnson et al. (2008, p. 57) state that business model innovation essentially is about providing game-changing convenience. Lastly, Osterwalder and Pigneur (2009, p. 23-25) propose that newness, performance, customisation, “getting the job done”, design, branding or status, price, cost reduction, risk reduction, accessibility, and convenience or usability are all elements that can lead to value creation.

The basic approach used in developing the 18 sources of e-value model was to adopt a customer point of view and identify factors between these different models that are essentially the same and integrate those, while keeping the independent, unique factors. This integration process is shown in Table 2 in Appendix A. In addition to these six primary models, several other miscellaneous sources were consulted to add depth to the model. In cases where the miscellaneous sources identified value sources not already included, then these were added to the model, resulting in 18 sources of e-value.

**Model Verification and Validation**

To ensure the integrity of the e-value model several comparative robustness tests were conducted which evaluated the 18 sources’ ability to “cover” adjacent value creation literature domains. This was done by assembling new integrated perspectives from these bodies of literature and assessing whether these new sources of value perspectives were identifiable in the constructed 18 sources of e-value and vice versa. Altogether four tests were conducted in this way: (1) Comparing the 18 sources of e-value to an integrated e-customer demands model, (2) comparing the 18 sources of e-value to the competitive strategy framework’s integrated e-loyalty antecedents model,
(3) comparing the 18 sources of e-value to an integrated dimensions of e-quality model, and
(4) comparing the 18 sources of e-value to an integrated generic dimensions of customer value
model. Although these comparisons are not shown in this paperiv due to length constraints, the
results from these tests will be discussed in the critique section.

Lastly, validation involved two rounds where the author presented the developed 18 sources of e-
value firstly to eight South African, and secondly to seven British and three American experts in one-
on-one, semi-structured interviews. The interviewees varied between academics and industry
practitioners in the domains of e-business, strategy, innovation, entrepreneurship and variants in-
between. The validators were used to obtain feedback on the developed e-value model and to
establish its overall validity. The interviews acted as checkpoints where the author could be made
aware of critical flaws or additional literature that needed to be explored. The insights and feedback
of the validators were then incorporated (between and after the two rounds) to increase the quality
of the e-value model. This iterative cycle was temporarily halted after these interviews to present
the latest e-value model in the following section, however it is likely that this model will still be
refined over time as a result of newly gained practical and theoretical insights.

THE 18 SOURCES OF E-VALUE

Rumelt (1979, p. 196-199) proposed that providing structure to an ill-structuredv situation may well
be the principle task in strategy. This is done by simplifying the overwhelming complexity of reality
by identifying certain aspects of the situation as being the critical ones (Rumelt, 2011, p. 39). This is
exactly what the 18 sources of e-value provides – an abstracted, but structured way to think about
value creation in the e-environment.

Altogether, the study identified 18 sources of e-value. These 18 sources represent types of value
that customers find valuable online and which businesses should incorporate in their value
propositions to maximise the potential of the Internet and enhance their survivability in the e-
environment. These 18 sources of e-value can be visualised as shown in Figure 1 below.

The model shows that 12 sources of value are predominantly functional in the type of value that
they provide, and include (1) effectiveness, (2) affordability and cost reduction, (3) range and
complementarities, (4) reach and accessibility, (5) findability, (6) timeliness and immediacy, (7)
authenticity, trust and security, (8) richness of information exchange, (9) interpretation, (10)
simplicity, (11) convenience, and (12) customer empowerment. Further, the models shows that six
sources of value predominantly provide emotional value and include (13) novelty and newness, (14)
aesthetics and brand attractiveness, (15) embodiment, (16) individualisation, (17) connectivity and
socialisation, and (18) personal fulfilment.

iv Interested readers will be able to find these robustness tests in the forthcoming PhD thesis “a competitive
strategy framework for e-business start-ups”. The integrative perspective on e-customer demands consisted
of 21 factors, the integrated e-loyalty antecedents model consisted of 34 factors, the integrated perspective
on dimensions of e-quality consisted of 22 factors, and the generic dimensions of customer value of 29 factors.
The references used in constructing these perspectives will be included in the reference list.
v Ill-structured situations are characterized by difficulty, ambiguity, and the lack of established methods for
moving towards clarification (Rumelt, 1979, p. 198).
Considering its application, the 18 sources of e-value can be used in different ways. Firstly, it can act as a learning tool for informing our understanding of value creation in the e-environment. Secondly, it can act as a brainstorming tool that guides thinking about how to develop innovative and desirable value propositions for e-business. Finally, it can be used as an analytical tool for determining the key strengths of businesses, or identifying weaknesses that require refinement.

The 18 sources of e-value model also includes several leading questions that are intended to assist the brainstorming process by probing users to think about the different sources of value and their applicability to the user’s business or industry environment. The first question, “What types of value are the most important to our customers?” assumes a market based perspective and is intended to probe the identification of the types of value that matter the most to customers. The second question, “How can we incorporate these types of value to create a desirable offering?” probes the translation of the preceding customer values into desirable value propositions. The third question, “Which types of value can we excel at providing?” assumes a resource based perspective and probes the identification of the business’ value creation competencies. If an alignment exists between the business’ competencies and customer value needs, then a good fit exists. Discrepancies between the two on the other hand could indicate that the business might apply its competencies in other ways.

The sources are numbered from one to 18 for the sake of structure, however this numbering provides no indication towards importance, priority or sequence. Furthermore, no prescriptions are made as to how many sources of value a business should pursue or focus on. These sources of value can be pursued either in isolation to develop a very focused offering, or in combination to deliver a

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**Figure 1: 18 Sources of E-Value**
better over-all experience. In most cases businesses will have traits of most of these sources of value in their value proposition, however they may not be significant enough to be regarded as factors that the business particularly excels at. Most businesses will therefore only have a few sources of value that they will pursue and act as core principles driving their value proposition. The 18 sources of e-value are discussed below.

**Defining the 18 Sources of E-Value**

**Effectiveness**

Effectiveness refers to doing a job well and obtaining the desired result. This source of value is related to the performance quality, reliability and functionality of offerings, and can involve doing things better, faster, more accurately, consistently, and producing fewer defects. (Osterwalder & Pigneur, 2009, p. 23) Excelling at effectiveness therefore involves creating an offering that is superior in the consequence that it produces.

**Affordability and Cost Reduction**

Affordability and cost reduction refer to finding innovative ways to be more efficient to lower expenses for customers. Affordability involves creating value for customers by making the offering available at a price point that is acceptable to them. Cost reduction on the other hand relates to reducing a customer’s expenses in things that they are already doing or are necessary for them to do (Osterwalder & Pigneur, 2009, pp. 24, 25). Cost reduction does not necessarily mean that an offering is low cost or affordable. It simply represents a better, lower cost solution than current practices or products.

**Range and Complementarities**

Range and complementarities refer to the variety of products and services offered (Wells & Gobeli, 2003, p. 7) and the synergies or complementarities that exist between these. Range provides choice and optionality to customers, whereas complementarities are present whenever having a bundle of goods or services together provides more value than the total value of having each of these in isolation (Amit & Zott, 2001, p. 504).

**Reach and Accessibility**

Reach and accessibility refer to the degree to which a company can make its offerings accessible to customers (Wells & Golebi, 2003, p. 6; Osterwalder & Pigneur, 2009 p. 25). Reach refers to the potential geographical or demographic penetration of the company’s offerings, whereas accessibility is concerned with the ways in which to connect customers with offerings (Kelly, 2008). Excelling at reach and accessibility involves eliminating barriers to consumption and giving customers access to products, services, their data, and digital capabilities at any time or place.

**Findability**

Findability refers to the ability to find something or be found. Findability is related to search and filtering capabilities and is a source of value as people’s attention need to be directed to improve their chance of finding what they really seek (Kelly, 2008). With millions of websites all clamouring
for attention (Gommans, Krishnan, & Scheffold, 2001, p. 46; Srinivasan, Anderson, & Ponnavolu, 2002, p. 41) findability is the only mechanism that will help businesses and users alike cope with the chaos of the burgeoning digital information overload.

**Timeliness and Immediacy**

Timeliness and immediacy refer to meeting customers’ need for instant gratification (Kelly, 2008). Time is a scarcity (Koiso-Kanttila, 2005, p. 64; Gummerus, 2011, p. 47) and immediacy is valuable. This is evident as customers are often willing to pay more for something they can instantly obtain than having to wait to get access to it at a later stage.

**Authenticity, Trust and Security**

Authenticity, trust and security deal with making customers feel at ease with purchasing products from a company online. Authenticity refers to genuineness, with trust relating to having confidence in a website’s reliability and integrity. Lastly, security refers to the safety of transactions and the safeguarding of customer information. (Arya & Srivastava, 2012, p. 151; Valvi & Fragkos, 2012, pp. 31-32) These two issues, transactional security and overall concerns for privacy, are two of the most significant issues that dissuade people from shopping online (Korgaonkar & Wolin, 1999, p. 56; Gommans, et al., 2001, p. 50; Wolfinbarger & Gilly, 2003, p. 183). Furthermore, as most people are risk averse (Bhatnagar & Ghose, 2004; Zhou, Dai & Zhang, 2007, p. 54; Welch, 2010, p. 3), it is critical to reduce buyer apprehensiveness in order to do business online.

**Richness of Information Exchange**

Richness of information exchange relates to the quality, depth and detail of the bi-directional information exchange between a company and its customers and the company’s ability to leverage captured customer information to better serve them (Wells & Gobeli, 2003, p. 7). Companies may for instance use customer information to develop individualised products, use it to reinvent customer relationships, or otherwise leverage a single digital asset to provide value across many different and disparate markets (Rayport & Sviokla, 1995; Tapscott, Ticoll & Lowy, 2000, p. 5; Lee & Vonortas, 2004, pp. 166, 168, 171).

**Interpretation**

Interpretation refers to the creation of clarity or understanding. Interpretation is a source of value, as many software solutions only become useful when the user has a thorough understanding of the package (Kelly, 2008). Interpretation from an expert may therefore be required and many businesses consequently make their money not from the software per sé, but by providing paid support services that help customers use the software. Inversely, these interpretation services can be offered for free, raising the perceived value and attractiveness of the software.

**Simplicity**

Simplicity refers to making things simple and easy to do. Complexity by definition increases the difficult to use and understand something. Simplicity works in the opposite direction to erase complexity, to make things easy to use and understand. Simplicity is a source of value in e-business, as the online environment is inherently complex. Furthermore, simplicity relates to breaking
through the skills barrier to make offerings so simple and straightforward that they become accessible to new groups of customers (Johnson, Christensen, & Kagermann, 2008, pp. 61-62).

**Convenience**

Convenience is about making customers feel like they are exhibiting zero effort (Arya & Srivastava, 2012, p. 150), therefore making it extremely comfortable to do something. Convenience is an overarching concept that relates to many of the other sources of value and involves making things simpler, more intuitive, user friendly and in e-business it also has to do with the way that information is presented, searched for and accessed (Srinivasan, et al., 2002, p. 44; Osterwalder & Pigneur, 2009, p. 25; Arya & Srivastava, 2012, p. 150). Though convenience may seem like a redundant source of value as it is a composite of many of the other sources, it cannot be omitted as it the concept embodies more than the sum of its parts, and is something that customers are willing to pay for (Reichheld & Schefter, 2000, p. 110).

**Customer Empowerment**

Customer empowerment refers to enabling and authorising customers. Customer empowerment is about giving customers enhanced control over interactions and business processes (Ungerer, Pretorius, & Herholdt, 2011, pp. 104-106), allowing them to help themselves. It is about enabling customers to make independent decisions and equipping customers with digital capabilities to execute those decisions and preferences (Swaid & Wigand, 2007, pp. 104-106). As a result, customer empowerment raises customer productivity (Kim & Mauborgne, 2000, p. 133), increases convenience and delivers a more satisfying experience.

**Novelty and Newness**

Novelty and newness refer to doing new things in new ways to entice customers. The value of novelty and newness lies in the ability to satisfy an entirely new set of needs that customers possibly didn’t even perceive they had (Osterwalder & Pigneur, 2009, p. 23). This could involve innovations in products and services, processes, distribution, marketing or markets. It can also involve novel transaction structures, transactional content and transactional participants (Amit & Zott, 2001, pp. 494, 508). Lastly, newness also relates to updatedness, where customers derive value from having the latest, best functioning product version or most up to date content.

**Aesthetics and Brand Attractiveness**

Aesthetics and brand attractiveness refer to the aesthetic appeal, brand image or style of an e-business or offering. It is intuitive and research confirms that people use appearances to make judgements about realities (Levitt, 1981, p. 97). A website’s design and first impressions are therefore critical (Gommans, et al., 2001, p. 51), as users translate appearance into confidence about performance. Aesthetics and brand attractiveness are therefore key elements in convincing Internet users to become paying customers (Goldstuck, 2012) and can aid in creating long-term e-loyalty.
**Embodiment**

Embodiment refers to the way in which the digital world and people’s digital interactions are embedded in different forms to create a more real, fun, entertaining or simply superior experience. People are always looking for the next best thing – whether it is high definition display, 3D display, holographic interfaces, surround sound and the like. A free experience may therefore be possible, but it is the embodiment of the experience in a better form that is valuable and what people will pay for (Kelly, 2008).

**Individualisation**

Individualisation involves the tailoring of offerings to an individual customer’s needs and circumstances. Personalisation, customisation and prosumption are all different ways to individualise offerings. Personalisation is initiated by the e-business (through customer data-mining) and usually involves the minor individualisation of interfaces, recommendations and ads based on customer behaviour and location. Customisation conversely is initiated by the customer (Amit & Zott, 2001, p. 506) and involves tailoring of the offering itself based on customer needs. Lastly, during prosumption (also known as co-creation) the production and consumption process converges (Lee & vonortas, 2004, p. 170; Osterwalder & Pigneur, 2009, p. 23) and customers play an active role in helping with the design or production of their final product.

**Connectivity and Socialisation**

Connectivity and socialisation relate to Internet users’ increased need to interact with companies and friends, share stories, connect with others and socialise (Korgaonkar & Wolin, 1999, p. 57; Seybold, 2001). All of these are enabled by the extended reach and openness of the Internet that provides a channel for information sharing, communication and collaboration (Lee & Vonortas, 2004, p. 166). Additionally, this extended reach is very conducive to network effects and word-of-mouth communication (Lee & Vonortas, 2004, p. 166), because as a users’ network grows, they are better able to collaborate in real-time, coordinate and execute tasks, and receive recommendations and advice about offerings from friends, contacts, or genuine past users.

**Personal Fulfilment**

Personal fulfilment relates to giving customers the opportunity to achieve a sense of happiness or satisfaction as a result of some achievement or experience that caters to an emotional need or assists in building their identity. It could also involve giving customers the opportunity to gain prestige, social recognition, self-esteem, express themselves or self-actualise. Building virtual communities can be particularly helpful in fulfilling these desires (Hoegg, et al., 2006, p. 10; Gummerus, 2011, p. 47), as virtual communities are places where recognition and respect can be earned, creating a sense of belonging.

**A Critique of the 18 Sources of E-Value**

Critiques of the 18 sources of e-value could be that is not reflective of all the types of e-value that exist; does not create all these sources of value when used in combination; and are not even the ultimate dimensions of e-value. It must be noted that it was never the goal to be completely exhaustive in the extent of value creation literature covered, nor was it the intent to include every
imaginable source of e-value. Not only is complete exhaustiveness simply impossible, but it would also violate the parsimony and utility requirements of the model. Furthermore, it cannot be claimed that these 18 sources of value are the absolute ultimate dimensions of e-value. The study is exploratory. It is therefore much too early to make that claim, if such a claim could ever be made. What the 18 sources of e-value reflect though, are commonly cited and ubiquitously manifested sources of e-value.

Investigating the issue of coverage in more detail, from the four robustness tests conducted it was found that the 18 sources of e-value has a very high coverage and correlation with the reviewed dimensions of e-customer demands, antecedents of e-loyalty, e-quality and customer value. Other findings were that the 18 source of e-value doesn’t emphasize sources of value that are more prevalent and relevant in industrial contexts, such as aspects relating to operational features, technical quality, performance metrics (such as durability, flexibility and conformance), and so forth. The model accommodates these aspects by lumping them under the “effectiveness” source of value.

The 18 sources of e-value also doesn’t span or address the complete spectrum of emotional, social, conditional and spiritual types of value (Seth, Newman, & Gross, 1991; Lai, 1995, p. 382; Woodall, 2003, p. 9; Holbrook, 2005, p. 47; Boztepe, 2007, p. 59; Smith & Colgate, 2007, pp. 10-14; Gummerus, 2011, p. 29). The problems with these types of value are that they are often too tacit, ambiguous, and instance or individually specific to sensibly strive towards or purposefully design into a value proposition. It is difficult for instance, to individually and explicitly design value elements such as sentimentality and memorability. Rather, these types of value are often the implicit result of some other factors, but to which the direct correlation is much less visible. The model therefore accommodates many of these softer dimensions by lumping them under the “personal fulfilment” and “embodiment” sources of value.

A last critique of the 18 sources of e-value is that some overlap may exist between the different sources. The author attempted to arrive at mutually exclusive sources as far as possible, however the meaning and interpretations embedded in language makes it very difficult to arrive at such a compilation. The best chance that any researcher would have to create at a mutually exclusive compilation is to break the constructs down into atomic parts. The result however, would be an assembly consisting of too many factors to be practical. As this study aimed at providing a model that is practical and useful, the author is content with the current assembly of sources of value that exist at an almost thematic level of abstraction.

**Future Research**

Avenues of future research include (1) practically applying the 18 sources of e-value in a workshop or case environment to test its usability as a learning, brainstorming and analytic tool; (2) refining the 18 sources of e-value based on new theoretical insights; (3) refining the model based on practical insights; (4) investigating the interrelationships between the different sources of value and the proposal of a more hierarchically structured model; and (5) investigating the relative importance of the different sources of e-value in specific industries, to identify industry specific key success factors.
CONCLUSION

The vague understanding of value creation in e-business provides an obstacle to entrepreneurs who want to formulate strategies and value propositions that effectively compete online. This study sought to alleviate this hindrance by providing greater clarity on the subject of e-value creation.

The research effort explored the extant e-value creation literature to propose an integrated perspective on sources of e-value creation, named the “18 sources of e-value”. The identified 18 sources of e-value include 12 predominantly functional sources, namely (1) effectiveness, (2) affordability and cost reduction, (3) range and complementarities, (4) reach and accessibility, (5) findability, (6) timeliness and immediacy, (7) authenticity, trust and security, (8) richness of information exchange, (9) interpretation, (10) simplicity, (11) convenience, and (12) customer empowerment. Six predominantly emotional sources of e-value were also identified and these include (13) novelty and newness, (14) aesthetics and brand attractiveness, (15) embodiment, (16) individualisation, (17) connectivity and socialisation, and (18) personal fulfilment.

This developed model was validated by 18 academics and industry experts in fields adjacent to the study and further tested for robustness by comparing it to an (1) integrated customer demands model, (2) an integrated e-loyalty antecedent model, (3) an integrated dimensions of e-quality model and (4) an integrated dimensions of customer value model. The over-all consensus from this process was that the 18 sources of e-value provide a very comprehensive perspective on e-value creation. The 18 sources of e-value are therefore capable of informing our understanding of value creation in e-business and hence enhance our understanding of competition in e-business. These value drivers should therefore be pursued in developing an e-business’ value proposition, in order to create offerings which maximise the potential of the Internet and therefore enhances the potential survivability and sustainability of these businesses.

It is recognised though that these 18 sources of e-value are not reflective of all the types of e-value that exist or are even the ultimate dimensions of e-value. It is therefore likely that this model will still be refined over time as a result of newly gained practical and theoretical insights. The pervasiveness and ubiquity of these sources of value showcased via triangulation and manifested in reality suggests however that these 18 sources are at the very least a good point of departure for thinking about value creation in e-business. Finally, it is recognised that the 18 sources of e-value model isn’t the “solution” to preventing e-business start-ups from failing. There are too many other factors that influence whether a start-up will be successful or not. The 18 sources of e-value however is an important stepping stone towards the goal of better understanding value creation in the e-environment, understanding how to formulate a strategy for the e-environment and how to compete within it. More importantly, the 18 sources of e-value can serve as a sound basis for spurring further theoretical conversations about the vital topic of e-value creation.
## APPENDIX A

### Table 2 – Developing the 18 Sources of E-Value

<table>
<thead>
<tr>
<th>No.</th>
<th>Sources of E-Value</th>
<th>3R Framework</th>
<th>Generative Qualities</th>
<th>Generic Sources of Value</th>
<th>Generic Levers of Utility</th>
<th>Obliterating Barriers to Consumption</th>
<th>Miscellaneous</th>
<th>18 Sources of E-Value Creation Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Novelty</td>
<td>Newness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1. Novelty &amp; newness</td>
</tr>
<tr>
<td>2</td>
<td>Efficiency</td>
<td>Price</td>
<td></td>
<td>Affordability</td>
<td></td>
<td></td>
<td></td>
<td>2. Affordability &amp; cost reduction</td>
</tr>
<tr>
<td>3</td>
<td>Cost reduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3. Range &amp; complementarities</td>
</tr>
<tr>
<td>4</td>
<td>Complementarities</td>
<td>Range</td>
<td></td>
<td></td>
<td></td>
<td>(Lee &amp; Vonortas, 2004, p. 178)</td>
<td></td>
<td>4. Reach &amp; accessibility</td>
</tr>
<tr>
<td>8</td>
<td>Interpretation</td>
<td>Interpretation</td>
<td>Risk reduction</td>
<td>Risk reduction</td>
<td></td>
<td></td>
<td></td>
<td>8. Interpretation</td>
</tr>
<tr>
<td>10</td>
<td>Embodyment</td>
<td>Risk reduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10. Embodiment</td>
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<tr>
<td>11</td>
<td>Patronage</td>
<td></td>
<td></td>
<td>Limited to what is not valuable in itself</td>
<td></td>
<td>(Hamel, 1996, pp. 72-73; Lee &amp; Vonortas, 2004, p. 166)</td>
<td></td>
<td>11. Findability</td>
</tr>
<tr>
<td>12</td>
<td>Findability</td>
<td></td>
<td>Simplicity</td>
<td>Simplicity</td>
<td></td>
<td></td>
<td></td>
<td>12. Simplicity</td>
</tr>
<tr>
<td>13</td>
<td>Performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Johnson, Christensen, &amp; Kagermann, 2008, pp. 61-62)</td>
<td></td>
<td>13. Efficiency</td>
</tr>
<tr>
<td>14</td>
<td>Getting the job done</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Lee &amp; Vonortas, 2004, pp. 168-175)</td>
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<td>15</td>
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<tr>
<td>21.</td>
<td>Customer productivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Removed – Not as applicable for online ventures</td>
</tr>
<tr>
<td>22.</td>
<td>Environmental friendliness</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>17. Connectivity &amp; socialisation</td>
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<td>23.</td>
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<td></td>
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<td>18. Personal fulfilment</td>
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<td>24.</td>
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<td></td>
<td></td>
<td></td>
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