1.0 Introduction

> *"It is difficult to generalise about book publishing industry, due to its striking heterogeneity. Its various sectors are significantly different from one another. Each branch operates in a distinctive environment, faced with unique challenges and criteria for success. Yet, despite its remarkable growth, little research has been carried out on the industry. Except for a few books describing the industry in broad, general terms, little academic research has been conducted on it. This could be attributed to the fact that book publishing is a less glamorous industry compared to others such as automobiles and computers. In addition, the integrity of the book as we know it has not changed much over the past five centuries. The lack of research on book publishing is frustrating and puzzling as it is a unique industry with many singular characteristics that make for interesting study."*
>
> *Hean, 1998*

This research explores e-transformation expediency in the publishing industry. In the context of this research, the author defines e-transformation expediency as the appropriateness, desirableness and conduciveness of an implemented system, pertaining to the profitability, convenience and suitability of a business process or processes[1]. The aims of this thesis are to understand e-transformation issues and the challenges in implementing e-transformation, and to reexamine and revise the knowledge intensive editorial phase in the book publishing industry.

1.1 The Publishing Industry

Language and writing is said to be one of the earliest innovations (Bawden & Robinson, 2000). The publishing history begins with readable records; perhaps first, on bones or skin, then hand-written manuscripts, wood-block

[1] Business process is defined as a set of one or more linked procedures or activities, which collectively realise a business objective or policy goal, normally within the context of an organisational structure defining functional roles and relationships. A process is defined as the representation of a business process in a form which supports automated manipulation, such as modelling, or enactment by a workflow management system. The process definition consists of a network of activities and their relationships, criteria to indicate the start and termination of the process, and information about the individual activities, such as participants, IT applications, data etc. The usage implicating both terminologies and other associated elements are as defined in the WfMC Glossary compiled by Hollingsworth (2004).

printing followed by the onset of modern publishing *via* mechanically reproduced printed books and finally the emergence of electronic books. These have their origins in the moveable type using clay, the invention of Pi Sheng (1041-1048) in China. 200 years later, metal moveable type was created in a government printing office in Korea in the early 13th. century. However, the Koreans have used wooden printing blocks as early as 751.

In 1452, using metal moveable type like the Koreans and a printer's ink that would function with metal type, Gutenberg invented the first system of the printing press. The technologies of paper, ink and book printing, followed. Known as the first revolution, printing by moveable type superseded the manuscript and created the book, as we know it; it did not replace an already existent book (Rostenberg & Stern, 2002).

Moveable type, with its mechanically uniform letters was set by hand until the end of the 19th. century. Thus, for centuries after its implementation, printing was essentially anthropomorphic[2]. Machines imitated man and the structure of the machine-made product bore traces of the human hand (Bailey, 1977). As machines were improved, traces of the hand tended to disappear.

The first establishment of the printing workshops is said to be in the Rhineland in the 1440's (Bawden & Robinson, 2000). William Caxton and Wynkyn de Worde set up a printing press near St. Paul's Cathedral in 1476; subsequently the British book publishing cultural industry has dominated world learning, leisure information, business and commerce for half a millennium (Stevenson, 2000). Printing business fluctuated with distribution of books poorly organised and the low literacy rate[3]. Even though the market

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[2] Personality or attributes of man; ascription of human characteristics to what is not human.

[3] In England in 1841, 33% of men and 44% of women signed marriage certificates with their mark as they were unable to write. Only in 1870 was government-financed public education made available in England. However, because of its emphasis on the individual reading of the *Qur'an* in the original Arabic alphabet many Islamic countries have known a comparatively high level of literacy during most of the past twelve centuries. In Islamic edict (or *Fatwa*), to be literate is an individual religious obligation, not a privilege given to a few in the society. In the middle ages, literacy rates among Jews in Europe were much higher than in the surrounding Christian populations. Most Jewish males learned to read and write Hebrew. Judaism places great importance on the study of the *Tanakh* and the *Talmud*. In New England, the literacy rate was 70 percent by 1710 and around 90 percent during the American Revolution. In Wales, the literacy rate rocketed during the 18th.. century, when Griffith Jones ran a system of circulating schools, with the aim of enabling

and the potential for filling the demand were there, the transport, control, and advertising mechanism were not. By 1501, there were 1000 printing shops in Europe, which had produced 35 000 titles and 20 million copies.

According to Bailey (1977), since World War II, the book printing industry has changed almost entirely from letterpress to offset and the linotype and monotype machines, the last vestiges of Gutenberg's moveable type, are no longer economically competitive for most work. They were replaced by computer-controlled photocomposition, and along the way some hybrids have been produced.

Known as the most radical transformation; the printing press allowed mass replication of an expression so that many people could receive it at different time and in different places. Printing was the first mass technology that decoupled the physical presence of the creator from the message created. With the origin of printing, publishing was born. Behind this, the publisher is the nerve centre of the book world (Basil Blackwell, *via* Bailey 1970). The introduction of printing is also the beginning of a long-lasting relationship between author, editor and publisher.

The nineteenth century witnessed dramatic changes in printing techniques and publishing practices in the established centres of publishing in Britain and in British territories throughout the world. Publishing was emerging as a modern phenomenon (Rostenberg & Stern, 2002). The rapid growth of libraries in the 19th. century was a significant development, which was parallel with the pressure for mass education. Printed books quickly become a regular object in the world.

Towards the end of the 20th. century, the book publishing industry had developed the value chain for mass-market book production and an estimated 50 000 new titles published each year in North America alone, generating an annual revenue of $80 billion. Then came e-publishing with online news, magazines and journals leading the way, changing the libraries traditional

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everyone to read the *Bible* (in Welsh). It is claimed that, in 1750, Wales had the highest literacy rate of any country in the world. Historically, the literacy rate has also been high in the Lutheran countries of Northern Europe. In 1686 church law (*kyrkolagen*) of the Kingdom of Sweden (Sweden, Finland, and Estonia) saw literacy enforced on the people and by the end of the 18th. century, the literacy rate was close to 100 percent (Wikipedia.org.).

system and finally e-books began to take its place in the electronic environment (Rostenberg & Stern, 2002).

To publish a book is to make available information for every human need in the form of a detailed documented treatise (Eisenhart, 1994), to make public in the form of book (Bailey, 1970), to announce, to proclaim issue to the public, to put into circulation (Chamber's Dictionary, 2001). Published products and services are distinguished from the rest of communication, through the following criteria. They must be recorded or captured in some form for relay; reproduced in some form for circulation; susceptible to dissemination over distance, that is, able to transcend space; susceptible to storage for retrieval and use at some future time, that is, able to transcend time (Eisenhart, 1994).

1.2 Research Rationale

E-transformation is about changing the means by which companies find, sell, service and communicate with customers, suppliers and those associated with the business. This means supplying those related to the business with the technology and information they needed not only to do business with you but also to help run their business better (Gibson *et al.*, 2003).

Making that transition also means understanding and anticipating the changes that occur in every aspect of the business; culture, people, business model, organisational model, application model, management process and technology. E-business in the new context is as one where the traditional organisation is being replaced by a virtual organisation and characterised the transformation as shown in Table 1.1:

Table 1.1 Characteristics of the publishing industry's transformation (*from* Montgomery, 2000).

1. The role of publisher as content provider is reduced. The publisher tends to take on a role more akin to a content broker, necessarily over time cooperating with other firms and individuals providing content, in order to meet the needs of the community of consumers.
2. Significant shifts in the balance of power, from the firm specifying the content the consumer is thought to want to the customer taking charge.
3. The shift from a focus on one type of publishing to one centered on technology publishing.

According to Gibson *et al.* (2003), in a cursory review of the literature on e-transformation, no comprehensive study was identified that provided insight regarding important issues related to implementing e-business.

Lonsdale & Armstrong (2000) reported that little work is being undertaken internationally; and believe the whole question of the nature of electronic publishing requires greater national debate to address issues such as the need for new publishing structures that involve co-operation between the various actors involved in the conception, publication, distribution and use of these electronic resources.

Sheehan (1998) commented on the absence of articles on conventional editing and this was when e-publishing has already taken its place. Sheehan also expressed his concerns on the need to preserve the standards of the editorial profession, by adapting the time-tested, paper-based practices to new media.

1.3 Electronic Publishing

The *Association of American Publishers*[4] defined an e-book as a literary work in the form of a digital object consisting of one or more standard unique identifiers, metadata, and monographic body of contents, intended to be

[4] By 2003, AAP consists of 317 corporate members (regular member companies, not-for-profit associates, University Press associates, affiliate membership).

published and accessed electronically. A monograph is defined as a detailed documented treatise on a particular subject. According to the Chambers Dictionary (2nd. Reprint 2001), a monograph is a treatise, book or paper written on one particular subject or any branch of it. The book is a great and ancient tradition. Books have been considered sacred from the earliest times (Bailey, 1977). It is an example of a creative art and for its proper effect requires an audience (Halpenny, 1969). However, the origin of books is unclear (Howard, *via* Halpenny, 1969). In the publishing industry, a monograph is a complete book. Electronic publishing or publishing electronically could also mean carrying out the publishing process using new technology but not necessarily producing an electronic book.

A general interpretation of electronic publishing is publishing materials *via* an electronic medium instead of an output in the form of physical paper. A much narrower interpretation is the integrated production of documents using digitally stored documents, computerised composition and electronic printing system. Therefore, in this case, the author defined electronic publishing as the production of a book or an e-book electronically, encompassing all processes involved in the production such as electronic communication, production, authoring, submission, reviewing, transfer and output.

1.3.1 Terminologies

Some important terminologies associated with e-book publishing are:

Online production is a distributed (over a network) way of handling the process of creating a journal text in a format ready to be sent to the customers (Scupola, 1999). **Electronic authoring** is the process of writing the article in a format that can be manipulated electronically. **Electronic submission** is the transmission of the article over a network to an editor. **Electronic reviewing** is a web technology that can be used mainly to speed up this process by allowing for faster transmission of the document instead of traditional mail.

1.3.2 Background

The history of the electronic books started with Andries van Dam about 40 years ago when he first coined the term 'electronic book'. In 1967 and 1968, he led a team to develop the first working hypertext system, 'The Hypertext Editing System' which ran in 128 K memory on an IBM 360 mainframe, funded by IBM, was later sold to the Houston Manned Spacecraft Center. It was used to produce documentation for the Apollo space programme. During the 1970's a File Retrieval and Editing System (FRESS) was used by Brown University and featured a dynamic hierarchy (like chapters/sections…), bidirectional reference links and keyworded links and nodes, while on graphic terminals FRESS offered multiple windows and vector graphics. In 1968, Alan Kay, a postgraduate student at Utah introduced the Dynabook, an electronic book concept which was further developed at the Xerox Palo Alto Research Center. In 1971, Michael Hart initiated the conception of Project Gutenberg, considered by many as the first attempt at creating electronic books. In the late 1980's, Voyager, a software company, developed a number of electronic books for Microsoft, and the introduction of DiscMan by SONY, a portable CD-ROM reader and display unit assisted in the development of the e-book market. In 1987, *New Horizon in Adult Education,* published by Syracuse University became the first e-journal published (Medeiros, 2004). Rocket e-book was launched in 1999, its advertisement stated that '*…..read…just as you would a paper book, take it anywhere you go, to work, on trips, to the beach or to bed*.' Unfortunately on June 18, 2003, Gemstar eBook Ltd. (who marketed the Rocket e-books) announced, '*We are scaling back our e-book operations and that we will ultimately be winding them down…we are not able to continue our business under today's difficult market condition*', (Gemstar's website). However, subsequent developments, the popularity of the web, the text encoding initiative, and the standardisation of SGML and HTML for the web, have all provided the groundwork for the current commitment publishers are making to digitise their front and back lists (Brown, 2001).

To date, not much has been seen on the innovations of e-books. Some e-books are merely the reproduction of the physical version and most of the

real e-books available are by authors publishing their own work without the supervision of professional editors. Most innovations in the e-book area are on the productions of software, readers, e-ink, and e-paper. After all these years, e-book is still considered to be in its' infancy phase; electronic publishing may be a disruptive innovation, therefore this study looked into the editorial phase, where the e-book is transformed from a raw material into a commercial asset. According to Andreas Sandler, partner of Accenture, a research company, the education side of the business may experience a faster adoption than the consumer side, but he sees e-books as a better proposition for both sides. Forecasts predicted a growing market that is a mix of print and electronic formats co-existing with each other. The size of the e-book market is reported at $250 million and Mayfield (2001), agreed that over time, e-books will be a great value proposition. In February 2001, Eduventures.com predicted growth in the e-library industry to reach $850 million. However, it has also been predicted that the most optimistic growth potential is in the sales of academic references for PCs and PDA devices for 2004.

A study by Andersen Consulting conducted for the US publishing industry predicted that by 2005, e-books would account for $2.3 billion in annual sales or about 10% of the book publishing market[5]. IDC believed that consumer e-books would make up only a $500 million market by 2004 compared to an $8 billion consumer market for paper books today (Fischer, 2002).

Joseph (2002) quoted that 5 years ago, when the initial decision to go online was made, the market appeared ripe for online publication. Online publication was more than just an electronic version of print pages. Similarity between printing and the Internet is that distance is overcome in giving access to information, minimising the need for physical presence and transfer of paper documents (Bawden & Robinson, 2000). The new media complement rather than replace the old (Crawford, 2002). The printing press may indeed offer a reflection of the nature and significance of the internet (Bawden & Robinson, 2000). Compared to traditional publishing, online publishing is inexpensive (Joseph, 2002).

[5] AAP Annual Report stated a US 23.4 billion sales for 2003 in the US publishing industry.

According to Joseph (2002), the essential features of e-publishing are that submission of all manuscripts elements should be in full electronic. Reviewing of text and multimedia elements should be done electronically. The manuscripts should be tagged to ensure that it could be linked robustly to other databases. Online display format(s) and print produced as derivative product from a core database. The online material should be able to appear in independent, revenue-producing products. Multimedia elements will be added and incubated in the display material. Lastly, free access is what user's dream of but publishers need to tackle this complicated issue wisely to make profit. Usage statistics should be monitored, stored and mined.

In future, customers either order a book, magazines or other models from an online publisher, which prints it, binds it and ships it, or if they don't care about the binding and cover, they simply download the book directly to their computer, ready to read and maybe print. This publisher has no direct sales staff, and its inventory is contained on computer storage media. Future development on the web as an e-commerce platform will increasingly depend on understanding the process by which people will use this new communication technology (Fortin *et al.* 2002).

O'Brien (*via* Mayfield, 2001) suggested that with limited content, inadequate reading screen resolution and differing formats, e-book devices will fail to find a mass audience. Technology pundits regularly predicted the death of the book and the newspaper, made irrelevant by electronic publishing (Hibbert, 1999), or a shakeout in the sector of Internet companies (Evans, 2000).

In the spring of 2000, Stephen King, horror-writer, began his experimentation with e-publishing. *Riding the Bullet*, became available in electronic form on 14 March 2000 and 600 000 copies were downloaded and King earned a net profit of more than $300 000. Following the success, *The Plant* was produced in July 2000. Despite initial success of the project, by the end of 2000, King suspended the project. According to Fischer (2002), this raised several issues about e-books and e-publishing, including rights, pricing, payment, sharing customised publishing and the integrity of the traditional publishing value chain.

1.4 The Editorial Phase

1.4.1 Evolution of Scholarship

According to Bentley (1973), editing, in a word, has to start from the codices[6], has to represent the codices at all points, and may only depart from them when the editor is sure that they have been squeezed dry of every possible piece of evidence, whether textual or physical. He further pointed out that the whole physical setting of the text has to be accounted for by the editor, from the binding to the fly leaves and pastedowns.[7]

No history of Middle English scholarship exists, according to Edwards (1987). Edwards further pointed out that until the publication of Warton's *History of English Poetry* in 1776, and for some time after its publication, the history of Middle English scholarship is substantially the history of Middle English Editing, which is between late 16th. and early 19th. century. Within that time, Edwards concluded that Caxton edited Chaucer (*The Canterbury Tales*) and Malony (*The Winchester Manuscripts*). He further pointed out that the history of Middle English editing for the rest of the 17th. century seems to be largely the history of these contending claims. One, the perceived need to make Middle English texts accessible to audiences with little or no knowledge of their grammar, orthography[8] or syntax[9], and on the other hand, the need to retrieve and preserve the text.

The problem encountered was the problem of presenting an antique text to a modern audience. Edwards noted that editors use explanatory notes and glossary as footnotes. According to Edwards, John Pinkerton is the first editor to be conscious of the appropriateness of alerting readers in a regular way to forms of editorial intervention, such as described below:

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[6] *Codex* means an unbound manuscript of some ancient classic (as distinguished from scroll), *codices*, the plural carries the meaning of an ancient manuscript volume; bound in book form; a manuscript volume especially of a classical work of the scriptures.

[7] End Paper. A large sheet of heavy paper, folded in half with half of it pasted onto the cover and the other half trimmed and bound with the pages of the book. It helps to keep the binding intact and protect the thinner pages from tearing loose from the cover. The half that is pasted onto the cover is called the pastedown or end paper. The other half is called the free end paper or fly page.

[8] The art or practice of spelling words correctly.

[9] Grammatical structure in sentences.

"Where in one or two places, a word, a line was palpably lost, the editor supplied them and even the most minute supplement, or alteration of an evidently wrong word, 'tho' it be but a 'that' for an 'And', is always put in bracket [ ]*."*

According to Edwards, the problem of accuracy and the role of editor seem to have achieved its first wholly systematic formulation in Middle English editing in Frederic Madden's edition of *'Syr Gawayne, A Collection of Ancient Romance Poems'* published by the *Bannatyne Club*[10] in 1839. According to Edwards, the introduction contains a statement that enunciates clear and consistent procedures for the presentation of texts, which together with Pinkerton's work, Edwards later described as showing stimulation of the growing refinement in the enunciation of concepts of editorial responsibility.

The problem of presenting the 'original text' is tackled by the ultimate solution before the age of photography, the type facsimile, retaining the manuscripts contractions and letterforms. Madden became the first to apply this method to Middle English texts. His concern for the accurate presentation does not preclude emendation, which is regularly indicated within square brackets; rejected readings are systematically recorded in a textual apparatus at the foot of the page; and there are substantial notes, glossary and introduction.

Madden established a tradition of Middle English editing "marked first by a conservationist cast, a consciousness of a need to represent the surviving forms of a text as scrupulously as possible, both in transcription and collation, as well as by a clear sense of the relationship between these activities and emendation. Middle English editing should be marked by tendencies that are often cautiously pragmatic".

Editorial methods, which is the use of recension[11], is abandoned in preference to editorial judgment. This involves extensive emendation and the establishing of a number of readings unsupported by any authority. In this

[10] The Bannatyne Club was founded on 27 February 1823 by Sir Walter Scott, to print rare works of Scottish interest, whether in history, poetry, or general literature. It printed 116 volumes in all before it was dissolved in 1861.

[11] A critical revision of a text incorporating the most plausible elements found in varying sources.

context, the role of the editor becomes potentially at least a vatic one, in which the author is cast as the confidante of the author's shade, glossing the mysteries of intentionality. They also seek to set themselves apart from traditions of editorial invention both by the fullness of their editorial apparatus, their scrupulous attempts to indicate all forms of editorial intervention and their lengthy introduction which discusses many of the changes they have made (Edwards, 1987).

According to Embree & Urquhart (1987), original text is copied by scribes, who make errors which lead to corruption and debasement of text. The editor's job is to detect inferior readings, to recover the originals, to reconstruct the archetype[12], and thus to restore the historical truth of the text.

Greetham (1987), who reviewed the editing of Hoccleve's *Regement of Princes* described 7 methods of editing such as shown in Table 1.2:

[12] The original pattern or model.

Table 1.2 Type of editing from the Middle English editing (*from* Greetham, 1987)

	Type of Editing	Description
1.	Photographic Facsimile	Particularly useful not only in making available the bibliographical nature of the work (make-up, foliolation[13], etc.) but can also serve as a register of taste especially in anthology manuscript. Preserve scribal rather than auctorial intention, it would not serve in place of a critical edition.
2.	Diplomatic Transcript	The substantive and usually accidental features of the document would be retained, but in modern typography. Do serve an honourable textual purpose, but most valuable in the recording of historical material, where such questions as the actual visual features of palaeography and auctorial orthography are less significant than the modern researcher's access to original content.
3.	'Best-Text' Edition	Best-text[14] or editions in the form of a specific witness. An editor adopts an apparent best-text stance in the editing of the works contained in the holograph.
4.	Genealogical text created by recencion	Construction of a neat stemma with both inferred and extant manuscript plotted according to their putative filiation, might suggest that recension is the dominating practice. It offers assistance in the restoration of substantive readings in the text, but cannot provide the mechanism for the creation of auctorial idiolect.
5.	Diachronic Apparatus	A clear text-facing page could be a plausible way of approaching medieval works with variant auctorial drafts, or with post-publication revisions by the author or a licensed scribe.
6.	Slavic Textological Model	Emphasising on the potentially equal status of all requirements as textual witness. The textologists are content to record the degree of variance but not to wager a critical judgment on the basis of this documentary evidence.
7.	Social Textual Theory	It works where post-publication transmission is long, varied and non-auctorial, such a method will transfer to subsequent history the prerogative of composition and re-composition, in a textual implementation of Fish's interpretive communities.

Morse (1987) in her review of *The Clerk's Tale* for the variorum Chaucer found that there were theoretical problems with the choice of any available texts. Morse further pointed that how much editors add is a matter of discretion, but at least in some cases, there will be significantly new notes and that will be particularly true for textual notes.

[13] Pagination (insertion of page numbers).

[14] According to Hanna (1987), in 'best-text' editing, one chooses one copy of the work as qualitatively superior to all others and follows that copy's readings with greater or less pertinacity. However, the basis of such a choice remains uncertain. Turville-Petre (1987) suggested that a manuscript is properly chosen as copy-text because it most closely represents the dialect of the author.

Morse also stated that early modern editors embraced regularity[15] because the rules by which regularity could be determined have just been worked out and regularity was fashionable.

According to Ott (1987), preparing a new edition of a more or less classical text requires more than entering, revising and formatting a text on a word processor. Editing in a philological environment means reconstructing a classical text from a variety of different, more or less corrupt manuscript and documenting its transmission in the so-called apparatuses or for modern text, while eliminating all deviations from the author's intention and providing not only an accurate and reliable text but also the history of its genesis. Ott further stated that every edition has its own special problems, depending on the kind of text and the age in which it was written.

Ott described 7 steps of conventional editorial editing, such as follows:

1. Collection of the witnesses (manuscripts, early quotations, drafts, autographs, early edition);
2. Collation of the text they present;
3. Evaluation of the collation of results (genealogy);
4. Compilation of the copy text;
5. Compilation of the critical and historical apparatus;
6. Preparation of indexes;
7. Publication.

Wells (1985) suggested that early editing before the 18th. century was on censorship for political reasons. According to Wells, if we can get out of the straitjacket of attempting to provide texts that aspire to definitiveness and aim rather at a reasoned plurality, we shall breathe more easily as editors, and we shall open up new territory to both critics and directors.

He further pointed out that some publishers in the 20th. century committed themselves so fully to the mass market that, as public fashions changed; they discarded one kind of literature for another.

[15] Rules or conventions.

According to Reiman (1985), in the 18th. and 19th. century, editors are striving to reach the same high standard of accuracy and informativeness, though may sometimes disagree on the best means of doing so.

1.4.2 The Role of Modern Editors

An editor starts from planning the product or the reading material. Then it is the acquisition phase, where authors enter the circle. In the case of prior planning, the work is called solicited work. Sometimes manuscripts land on the editors table without the planning stage or without the editor's knowledge of its development stage or consummation. This is unsolicited work. In solicited work, the book already has a planned future, what title, what content, how thick or how long, illustrated or plain text and even the cover has been planned in advance. An author has already been assigned to produce the work. Planning also involves market and profit surveys[16]. The roles of editors are further detailed in the following chapter.

1.4.3 Administration in the Editorial Processes[17]

Administration in the editorial processes does not only involve communications between editors and other players. Editors play the main role of selecting authors, reviewers and artists. They arrange for almost everything involving the production of books under their supervision, including those on promotion and delivery. They make costing of the books, approval on stages of production so as to enable the authors or other players involved to be paid according to what these editors suggested.

Editors ensure that all the book requirements are met such as ISBN, graphics, covers and so on and ensure that the other players assigned to these aspects meet the expectations of editors.

Editors are also apt to engage in professional activities such as interviewing, training in and training of, and project management that limit time at the computer or at editing.

[16] [17] This statement is based on the facts found in the case Company's Manual on Work Procedure.

1.5 The Publishing Business Models

Most of the available publishing business models are based on the paid access model. Free access model is as shown by the Project Gutenberg model where users could download and print documents without having to pay for them, while most of the paid access model are as described in this section.

1.5.1 Paid Access Model

1.5.1.1 Subscription model

Questia provides a good example of the subscription model. Its service is marketed directly to academic students. These students needs to pay a periodic subscription fee, while *Questia* tracks the use of each title within the collection and pays royalties to publishers based on actual usage (Gibbons, 2001; Dorner, 2001). However, subscribers cannot download and save the texts but are allowed to print, copy and paste portions of the documents. The publisher will received the payment first before the issues have been published.

1.5.1.2 Content services

In this model, content publisher provides text, audio, or video content to users who subscribe for a fee to gain access to the service.

1.5.1.3 Person-to-person networking services

This model provides a means of transmission for the distribution of user-submitted information, such as individuals searching for former schoolmates. Its' registration is free but some features or services provided in the website requires a fee-based subscription system.

1.5.1.4 Trust services

This model provides membership associations that abide by a code of conduct, and members pay a subscription fee.

1.5.1.5 Pay per view model /Pay to download

This model requires the customers to make payment *via* a secured transaction before any article could be downloaded.

1.5.1.6 Online syndication model

Content syndication is an idea that began with the newspaper industry. Newspapers do not write all stories in their paper but get content such as news stories, weather forecasts and comic strips from other sources. The concept of content syndication has existed for years with the syndication of news, editorial columns and comic strips to a defined distribution list of media subscribers and it is more analogous to the physical distribution networks through which manufacturers sell their products.

Readers never know a site is licensing its content from other publishers and this is not very helpful if a publisher wants to build its own brand or established its' website as a high-profile 'destination' on the web.

Another drawback is that it is not clear who is paying whom to distribute content. In some cases, a publisher may actually pay the licensee for the privilege of placing its 'product' on a high traffic site. Yet in many cases, publishers that build the right kinds of relationship are generating both more income and more visible online presence than their competitors are.

1.5.1.7 Content and commerce model

In this model companies build partnerships that promote traffic and revenue on their own sites. This requires publishers to rethink the relationship between content and commerce, and to combine the two in ways that were not always acceptable or even practical in other media.

1.5.1.8 Peer review - author pays

Peer review is a service provided by journals and other services such as archiving is provided by the authors' institutes while the library funds could be used to allow authors to pay for the articles. This upfront payment model is superior to the subscription model in virtually every way. This model was pioneered by Elsevier Science, which was started in 1997 with online journals such as *Optics Express* and *The New Journal of Physics*. After all these years, both journals are still publishing regularly in spite of competition with large publishing houses**.**

1.5.1.9 Author-pays model

The author has to pay a fee to get the paper or manuscripts published online, which is similar to the peer review journal model, mentioned earlier.

1.5.1.10 Self-terminating model

This model is based on the time provided with the amount paid for the download of an e-book. Time limited e-book servers to libraries, allows users to borrow e-books. These e-books could not be transferred and will self terminate after a fixed period of time. For example, Palm Digital Media announced a new version of the Palm retail Encryption Server Software that provides libraries with a way to let patrons check out Palm Reader e-books. It uses a hardware identification number assigned by the PR e-book application to a handheld or desktop computer. The server uses this ID to lock an e-book after which the PR programme will refuse to open it. The file uses a proprietary format and is encrypted. The proprietary encryption-based format is designed to allow content providers to exercise an increased degree of control over the way users use and transmit purchased information.

The drawback for this model is that it can only be read by the PR application not by other e-book readers. The format itself offers limited text formatting ability, image support and internal links. Example of this model is netLibrary (Gibbons, 2001) that mirrors the traditional library circulation model where only one person at a time has a copyrighted title within the collection. A patron is allowed to browse a title for up to 15 minutes after which, the patron can either 'check-out' the book or allow it to go back into the collection. A personalised netLibrary account is needed and once checked-out, only the patron has access to the book for whatever circulation period the library initially determines and can access that title from anywhere, even outside of the library's IP address. When the circulation period expires, the patron loses access to the title and it is 'returned' to the collection.

1.5.1.11 The Bookface model

Hilts (2006) describes the Bookface model as the web site that offers free browsing, with advertisements placed around a screen's worth of book text and advertisers will pay for the privilege of being near text that people want to

read. Revenues are collected from advertisers and delivers them to the author and publisher for each page that a customer reads. If a reader decides to buy the book after browsing, Bookface connects the user to Amazon.com or bn.com. In this way, Bookface generates revenues from the sale of the bound book, and also advertisements revenues based on the browsing periods. Bookface still generates revenue and profits if a reader reads the entire book online without buying it. The browser-based Bookface service and technology enables publishers to reach online readers while protecting valuable content from being copied, redistributed or altered. The book files are encrypted for storage and transmission and only decrypted for display on the users screen. The book is not stored on the users' hard drive. Bookface server delivers each page to the users screen as fast as it is requested and each page is discarded when the next page appears. Users never have a copy of the complete text in their computer, and the display only technology does not allow readers to cut, paste or alter the text.

1.5.1.12 The eMatter model

Pack, (2000) described the model where authors set a price for the document and pay a monthly fee to Fatbrain.com to cover the cost of storing the eMatter. Once Fatbrain receives the document, the company scans it for viruses and converts it into an enhanced, secure version of a PDF file. The document is then posted for sale on Fatbrain's website, and visitors can find it via the site's regular search mechanisms. When somebody buys the document, he or she downloads it as an executable (.exe) file. It has a security wrapper that ensures the content is protected even if it is redistributed. When a copy of an eMatter file is opened on another computer a dialog box will appear with a link that lets the reader go online and buy the rights to the document. If the work sells, Fatbrain sends you a check and a detailed sales report. Besides the 50% royalty for each copy of a title sold authors could earn additional royalties by joining Fatbrain's.com affiliates program and offering the document through links from your own web site to the online store.

1.5.1.13 iPublish model

In this model authors are provided with a forum to post excerpts of their work for review by other authors using the iPublish system. For an excerpt that

receives high ratings, the whole manuscript would be reviewed by an editor for possible publication.

1.5.1.14 The Guild publishing model

In this model authors submit documents in a common word-processing system such as Word and the document will be tagged or converted to Adobe Acrobat, which is then reviewed before it is published. Quality is measured by the Guild's, authors and sponsors reputation, as well as by its value and trustworthiness. According to *Kling et al.* (2002), this model has several benefits such as, a localised site, relative ease of innovation, quality, rapid access, economical and it is compatible with other publishing models. However, this model has several drawbacks such as its reinforcement on reputation, access due to indexing and prior publication limitations.

Mandel (2000) categorised 3 publishing models which were further categorised by Henke (2001) into 4 as shown in Table 1.3. However, neither author classifies some of the content based publishing.

Table 1.3 Types of publishing models described by Mandel (2000) and Henke (2001).

Model	Description	Examples
Prevention	The e-book is encrypted and when a user buys the e-book, it is decrypted. Most publishers and retailers support this model and is the basis for most DRM[18] systems. This model assumes that DRM technology can prevent widespread theft and that encryption keys can be protected from hackers.	Content Services Model, Trust Services Model, Pay per View/Pay to Download Model
Advertisement	The e-book is packaged with advertisements that the user must read as part of the e-book. Publishers make money by selling advertisement space and users buy the book at a discounted price or for free. This has been the model used for many 'dot.com' companies but unfortunately, this model has not provided sustainable profits.	Person-to-Person Networking Services, Content and Commerce Model, Bookface Model
Marketplace	The e-book is sold through a clearing house where users can buy the e-book and trade it to another user who pays a fee to the clearing house for reading the e-book.	Online Syndication Model, eMatter Model, iPublish Model
Subscription	The e-book is sold through a clearing house or the publisher in the form of a subscription. Users pay for a series of books or for chapters of a book. This is analogous to how software is sold to corporations today.	Subscription Model, Self-terminating Model, Guild Publishing Model

1.5.2 Content-Based Publishing

These are publishing model of the Information Age proposed by Eisenhart (1994).

1.5.2.1 Content-based publishing

The focus is first on the content followed by the medium. It is characterised by the shifting of content from one form to another. This has implications at both the product level, the development of specific content in different media forms, as well as at the corporate level: which media business are we in? Where do we invest? What is our operating expertise?

The material has to be fit to the medium, and this vested interest in the medium format and distribution apparatus drives the product development. This is the essence of the product-driven approach, in which the medium is the master, not the market.

[18] Digital Rights Management system

1.5.2.2 Proprietary content

To maximise return on their information assets, publishers must seek to own or at least acquire through licensing all exploitable rights to their material. Marketing strategies must be implemented to maintain products even at later stages of their lives if publishers seek to gain the most from their valuable asset.

1.5.2.3 The digital library

Keeping the material in its most fluid and manipulative form, i.e. digital. The clear trend with the penetration of computer processing technologies in all industry segments is toward digital creation, storage and delivery of all information. From the originating publishers standpoint, embodying and maintaining material in digital form means it will be ready to manipulate not only for preprint purposes but for repackaging as derivative publications, for electronic distribution, electronic packaging (optical disc) and for revision, new editions and updates.

1.5.2.4 Content franchise

Publishers can dominate a market niche from a content-based perspective and thus carve out, be identified with, and own content franchises. Content franchise usually work best for those publishing and media firms that have a definable, focused body of content, as the publisher becomes closely identified or even synonymous with a given content area, often by virtue of allying himself with the key knowledge experts in the field. To achieve true control of a content franchise, discrete product lines and content continuity, versus stand-alone products, are generally required. Special interest magazines, for instance, provide a focused body of content and direct customer access.

1.5.2.5 Recombinant publishing

The reuse of existing material in new media, combined in new forms and compilation with other existing and new material. It is the Information Age equivalent of anthology publishing, made possible by electronically stored and manipulated content. It is a subset of derivative publishing opportunities that uses content not just in its entire, discrete original form but in segments as well.

1.6 Disruptive Innovation

Disruption is often viewed as negative and destructive. However, disruptive technologies could also create growth or entirely new industries through products and services that are dramatically better and convenient (Kostoff *et al.*, 2004, Dhillon *et al.*, 2001). Disruptive technology is also a cause of disruption of established workforce participation. It causes product paradigm shifts , creative destruction, earthquake (Lyytinen & Rose, 2003, Kostoff *et al.,* 2004), whirlwind, game breaking, typhoon, emergent technologies and cannibalisation (Cravens *et al.*, 2002; Gerde & Mahto, 2004). Evaluating and introducing disruptive technologies is a challenge to most organisations (Bucher *et al.*, 2003). Innovation may result in degraded business product and services performance; along side cheaper, simpler, smaller and frequently more convenient to use (Christensen, 1997).

Successful well-organised organisations can fail through inability to recognise the distinction between sustaining technologies and disruptive technologies. The ability to recognise disruptive technology and its potential is critical to the success of businesses now and in the future due to the challenges it presents for big and small firms (Christensen, 1997).

1.7 Research Context

1.7.1 The Case Company

Dewan Bahasa dan Pustaka (DBP) or its English equivalent, *The Institute of Language and Literary Planning and Development*, was founded on 22 Jun 1956 in Johor Bharu, Johor, Malaysia, as a small department under the Ministry of Education, and initially named the *Balai Melayu*. Its formation is for the purpose of disseminating the Malay language as the national language and the official language for the country which is to be liberated from the British Government then[19].

The 3rd. Congress on The Malay Language and Letters in Singapore[20] and Johor Bharu on 16 - 21 September 1956 officially named the department as *Dewan Bahasa dan Pustak*a (DBP) and upgraded it as an institution with

[19] Malaysia gained its independence on 31 August 1957. Until 16 September 1963, it was known as The Federation of Malaya.
[20] Then, part of The Federation of Malaya. Singapore separated from Malaysia in 1965.

its own Board of Directors. In 1957, it moved to Kuala Lumpur when the Malay language became the national language and the official language of the country.

In 1959, DBP became a semi-government body and with the enforcement of *The Ordinance of Dewan Bahasa dan Pustaka 1959*, it was upgraded and given the autonomous power for the following:

i) to draft its own specific legislations and policies;

ii) to structure its own programme for the development and dissemination of language and literature; and

iii) to carry out its publishing activities and business competitively in line with the principles and practices of the publishing industry and profession.

In 2003, DBP opened its 5th. branch in Malaysia. It has become the largest publishing house in Malaysia, controlling almost 70 percent of the lucrative text books market and publishing almost all types of books from early years to general reading and higher learning in all fields of studies.

1.7.2 DBPs' Charter

Its' Charter described it as to produce all publications in the form of a high quality standard Malay language, through a service that is competent, efficient and excellent, with priority to its customers and a promise of production and services upholding its extended core function of language, literature and publishing as stated below:

- To provide a complete, up to date, authoritative and consistent language references and guides;
- to provide a complete Malay language and other Malay databases which accessible by all;
- to ensure that all enquiries/complaints on the Malay language, literature, publications, and works via telephone, facsimile and e-mails will be entertained within 24 hours and *via* mails to be replied within (7) working days of it being received;
- to perform the activities of disseminating and socialisation of the Malay literature to the public at home and internationally;

- to conduct high quality research on traditional and modern literature in the areas of knowledge, thinking and esthetic to fulfill the demands of its customers;

- to ensure that all forms of appreciation at state, national and international level is given to scholars and publications which fulfill the standards applied;

- to inform the author within 7 working days after the manuscript is received and its publication status within 3 months. The manuscript shall then be published in accordance with the *Gaya Dewan* within 16 months of it being received;

- to ensure that its magazines will be on sale no later than the 20th. day of each month;

- ensuring the rights of its writers through the Publishing License Contract; and

- to make payments within 1 month from the date of receiving the invoice.

1.7.3 Organisational Structure

Formed under the *Ordinance of Dewan Bahasa dan Pustaka 1959*, the Board of Directors' function is to develop and implement policies to achieve the objectives of DBP. It has 17 members, 6 was elected based on their appointment, 11 by the Minister of Education, indicating how it is controlled by the Government. The organisational structure of the Company is as shown in Figure 1.1. The shaded boxes are the departments/divisions directly affected in this study.

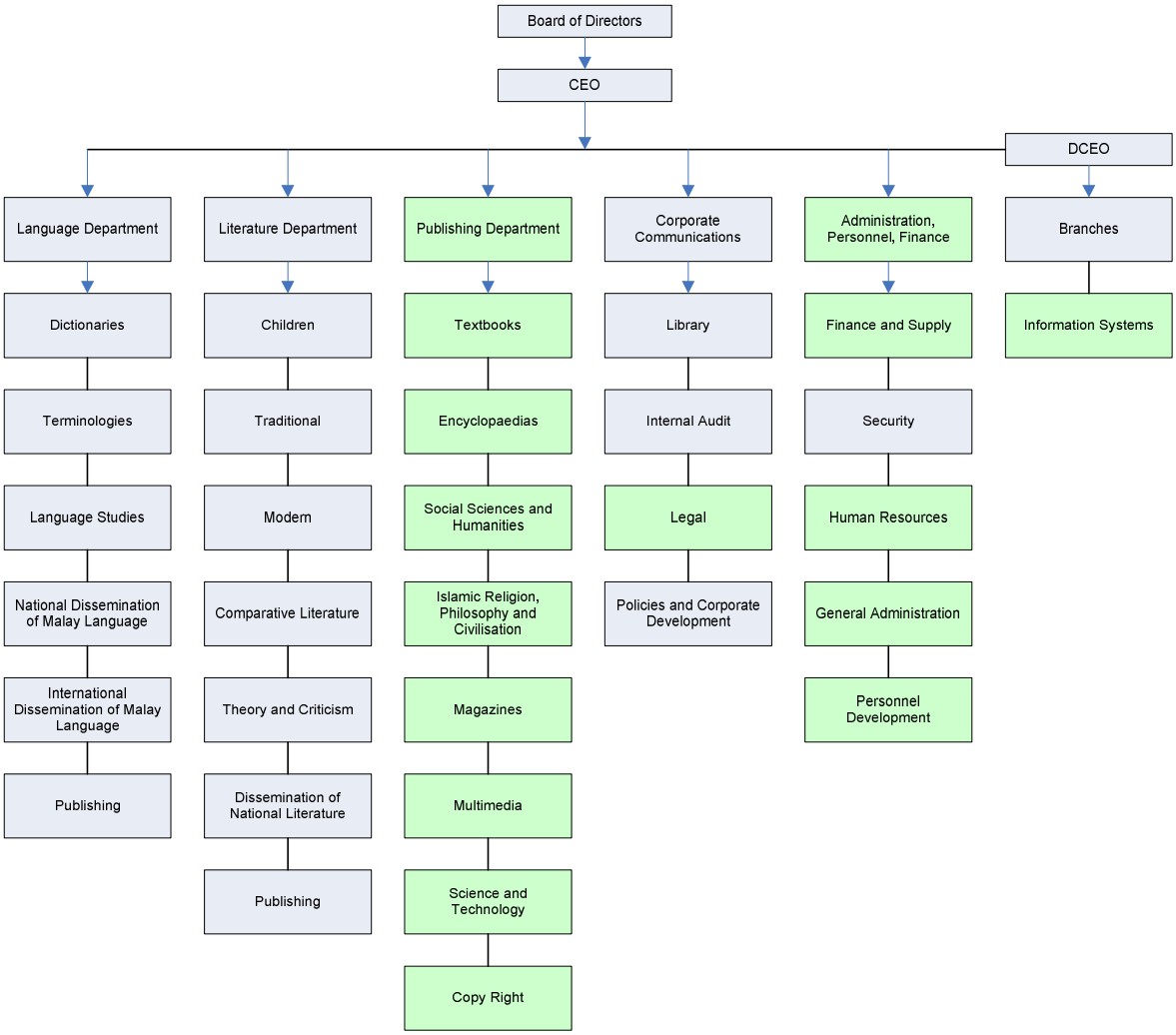

Figure 1.1 The organisational structure of DBP (compiled by author).

1.7.4 Objectives of DBP

The objectives of *Dewan Bahasa dan Pustaka* as stated in the *DBP Act* (revised, 1978; amended and expanded 1995) are as follows:

- To develop and strengthen the national language in all fields including science and technology;
- to disseminate literary talent and aptitude especially in the national language;
- to print or to publish or to assist in the printing or publication of books, magazines, brochures and other forms of literary works in the national language and in other languages;
- to standardise spelling and pronunciation, and develop appropriate terminologies in the national language;
- to encourage the usage of a correct national language and;

- to encourage the use of the national language so that it will be used widely for all occasions in accordance with the enforced legislation.

1.7.5 Its' Publishing Operations Structure

The structure of its editorial operation is as shown in Figure 1.2. Details of the processes will be discussed in the following chapter.

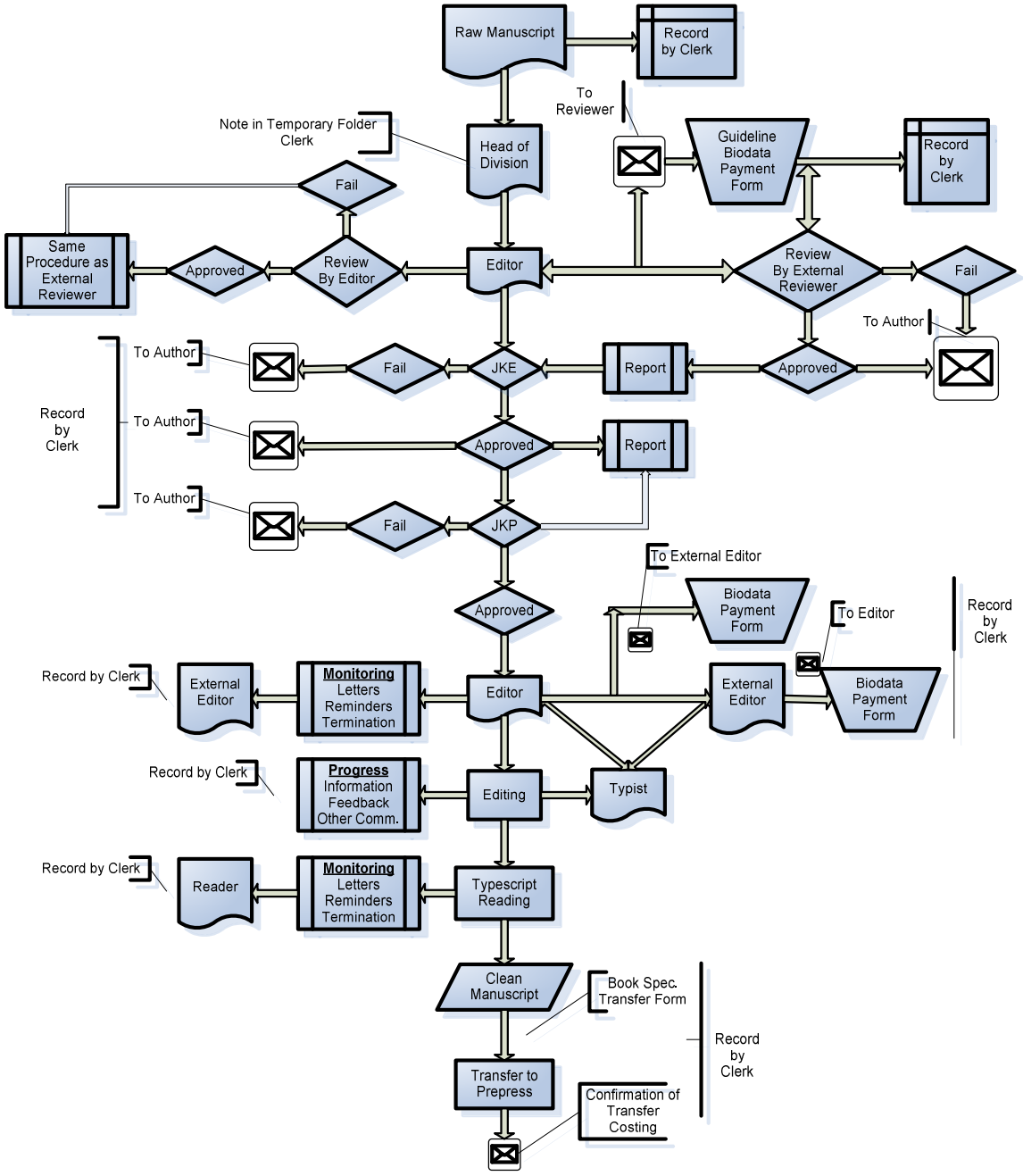

Figure 1.2 The editorial process in DBP (compiled by author).

1.8 Research Framework

In this research framework, the objectives, research questions and deliverables were outlined, such as shown in Figure 1.3.

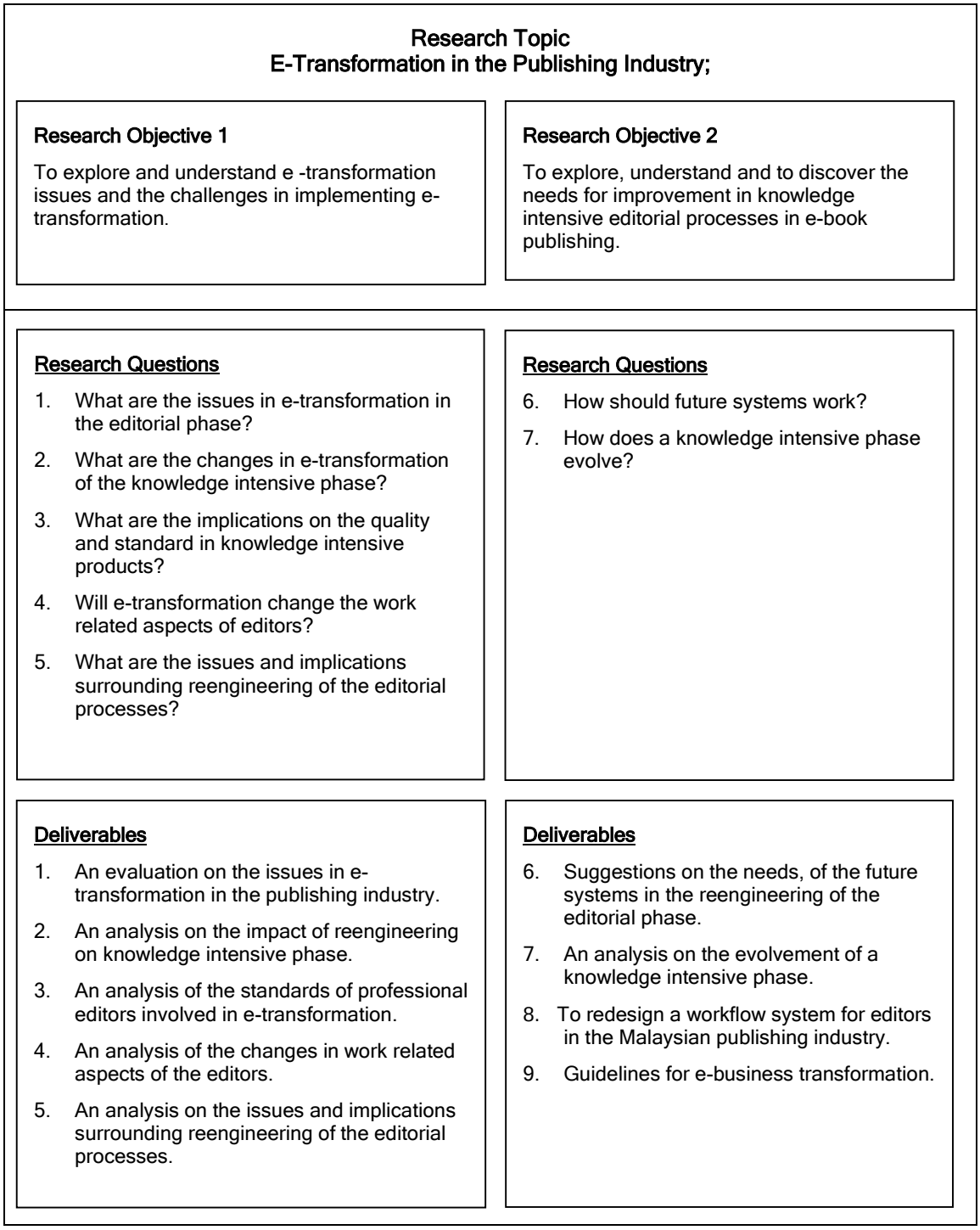

Figure 1.3 Overview of the research framework (compiled by author)**.**

1.9 Thesis Structure

Figure 1.4 gives an outline of the contents of the Chapters in this thesis.

1.9.1 Chapter 1: Introduction

This chapter aims to give an overview of the whole research project. It covers the organisation under studies and the context in which the research is carried out within the boundaries of the organisation. It also gives an outline of the whole thesis, chapter by chapter.

1.9.2 Chapter 2: Literature Review

This chapter covers the literature review to develop an understanding in electronic transformation in the publishing industry, to define the research questions and framework, and to design the approach to the research. The literature review covers four main areas: the publishing industry, electronic publishing, the editorial phase and electronic transformation with regards to the publishing industry.

1.9.3 Chapter 3: Methodology

This chapter outlines and discusses the research methodology that binds together the purpose of the research, the available theory and the evidence gathered. The topics covered in this chapter include the research philosophy and strategy, the research methods relating to the design of the research instruments and collecting, analysing and interpreting the evidence.

1.9.4 Chapter 4: Research Findings - Preliminary Study

This chapter presents the findings of the preliminary study. It encompasses the analysis on the Company's system and the findings gathered from the focus group methods.

1.9.5 Chapter 5: Research Findings – Focused Study

This chapter presents the findings of the focused study. It encompasses the findings of the case study interviews, documentation, archival records and physical artefacts findings. It also presents the proposed new workflow for the editorial phase.

1.9.6 Chapter 6: Data Analysis

This chapter presents the results of relationships in the findings of the research and discusses the findings in more detail, thus addressing the research questions.

1.9.7 Chapter 7: Discussions and Conclusions

This chapter presents the conclusions to the whole research and presents guidelines and workflow and discusses the limitations to the research. This chapter also provides the contributions of the research to literature and practice.

Figure 1.4 outlines the chapters in this thesis.

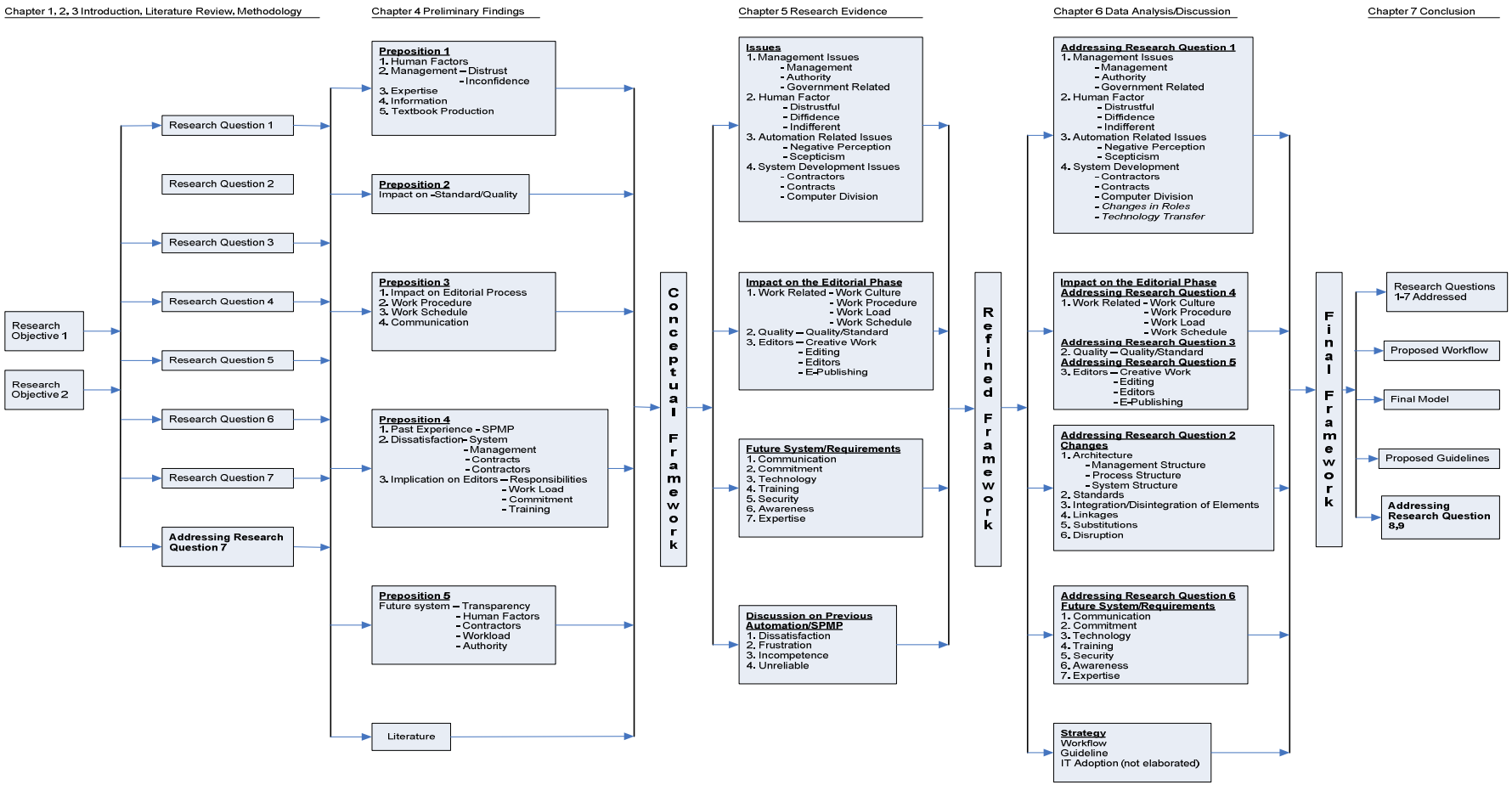

Figure 1.4 Outline of thesis chapters.

2.0 Literature Review

2.1 Introduction

This chapter covers the literature review to develop an understanding in electronic transformation in the publishing industry, to define the research questions and framework, and to design the approach to the research.

The literature review covers four main areas: the publishing industry, electronic publishing, the editorial phase and electronic transformation with regards to the publishing industry. These areas are illustrated in an initial framework in Figure 2.1. The framework is used to organise the literature to show the relationship between the four domains that are fundamental to the topic of this research.

<table>
<tr><td><u>Section 2.2</u>
The Electronic Transformation Literature</td><td>E-Transformation</td><td rowspan="2">Editorial Phase</td><td rowspan="2"><u>Section 2.4</u>
The Editorial Phase Literature</td></tr>
<tr><td><u>Section 2.3</u>
Publishing Industry Literature
Electronic Publishing Literature</td><td>Conventional Publishing
E-Publishing</td></tr>
</table>

Figure 2.1 Structure of Literature Review (compiled by author).

2.2 E-Transformation Literature

2.2.1 Background

The terminology referring to e-transformation has now been used widely, such as those found in the literature used by Sharma (2000), Nicholson (2000), Follit (2000), Al-Mashari, (2001), Chee & Pan (2003), Choon *et al.* (2003), and Davison *et al.* (2005). The terminology is used as widely as e-business, e-commerce, or anything related to 'electronic'. Specifically it is electronic transformation, any transformation that resulted from the use of electronics tools. The letter 'e', which has been coined, has never been standardised as an

individual word and presumed to be related to electronics. In physics, it stands for electron, in mathematics, it stands for a symbol, the base of the natural system of logarithms; the eccentricity of a conic section. Now it is used, coined with another word, that gives a meaning to anything that has to do with 'over the Internet', or incorporated with technology or IT or IS, thus the existence of words such as e-learning, e-supply, e-business, e-enterprise (Hoque, 2000).

E-transformation is about changing the means by which companies find, sell, service and communicate with customers, suppliers and those associated with the business with the technology and information they needed not only to do business with you but to help run their business better, a fundamental paradigm shift, which is a source of much concern (Montgomery, 2000); the use of data to support decision making (Davenport *et al.*, 1990); application of information and communication technology to traditional business and communication processes, with the intention of bringing about significant improvement in their efficiency and effectiveness (Davison *et al.*, 2005); transformation of some operational processes caused by the incorporation of advanced information technology, where paradigm shift and process reengineering are usually resulted (Cheung, 2004); structural and conceptual changes (Sharma, 2000); enterprise-wide changes and e-work related innovation processes through information technology and the internet (Hyung *et al.*, 2003). Based on Table 2.1, all agreed that to transform for a better business or process environment, information technology is required.

Table 2.1 Some views on e-transformation.

Researcher	Medium	Changes	Effects
Montgomery, 2000	Technology and information	Fundamental paradigm shift, better running of business	All business environment
Davenport *et al.*, 1990	Application of information, communication and technology	Improvement in efficiency and effectiveness	Traditional business, communication process
Davison *et al.*, 2005	Incorporation of information technology	Process reengineering	Paradigm shift, Operational processes
Sharma, 2000	Electronic medium	Structural and conceptual changes	Organisation
Leem *et al.*, 2003	Application of information technology and Internet	e-work related innovation processes	Enterprise wide
Wilder, 1999	Information and technology	Rapid transfer of knowledge, organisational change	Organisation

Venkatraman (1994) describes e-transformation as IT-enabled business transformation, in relations to business operations. According to Grover & Malhotra (1999), managing and adapting the business enterprises from the old order to the new order requires new ways of thinking, running businesses and researches. A holistic understanding of how the entire firm operates in its business environment is needed. Grover & Malhotra focused on information systems (IS) and operations management (OM). While advances in information technology are driving most contemporary changes, operation management is crucial to the proper implementation and management of these changes. Venkatraman (1994) proposed a five level IT-enabled business transformation framework (Figure 2.2), which has been tested and validated. Peppard (1998) quoted that it is a useful framework both for examining IT in organisations and for classifying categories of how IT can be used in an organisation.

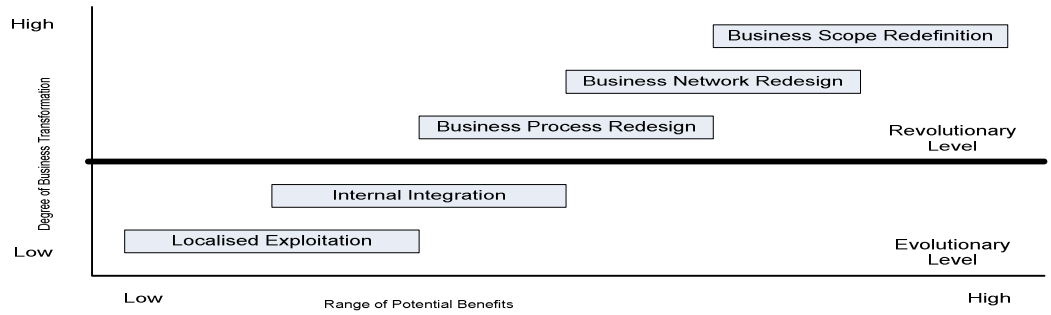

Figure 2.2 IT-enabled business transformation framework (*from* Venkatraman, 1994).

Venkatraman's framework is based on two dimensions: the range of IT's potential benefits and the degree of organisational transformation. According to Venkatraman, standard IT applications, when accompanied by corresponding changes in internal business processes, can result in significant advantages (Venkatraman, 1994).

Venkatraman further pointed out that the decision to innovate should be motivated by a focus on differentiation and strategic effectiveness rather than efficiency alone. The benefits from every IT application are considerably enhanced when the performance criteria are realigned to reflect the new IT-enabled business process. El-Sawy *et al.* (1999) reported that an IT infrastructure is integral to the transformation of enterprise architecture to suit the needs of the electronic economy. Drawing from researches conducted by Venkatraman, Grover & Malhotra and El-Sawy *et al.*, Venkatraman's framework could be exploited while focusing on operation management and IT infrastructure, to understand and finally implement the transformation.

Table 2.2 Some views on business process reengineering.

Researcher	Views	Changes	Effects
Hammer & Champy,1993	Fundamental rethinking and radical redesign	Business processes	Dramatic improvement in critical contemporary measures (cost, quality, service and speed)
Guimares & Bond, 1996	Paradigm shifts	Business processes	Improvements
Alavi *et al.*, 1995	Radical redesign	Business processes	Dramatic improvements in performance
Davenport & Short, 1990	Analysis and design	Workflows and processes	Organisation

Peppard (1998), in his paper on the conceptual framework to capture the current research and perspectives on IT stresses that it is less easy to identify the changes it may effect on decision-making, communication patterns, formal and informal structures, authority and control, power and political systems, than the impact on tasks and processes.

Business process reengineering is described as the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance such as cost, quality, service and speed (Hammer & Champy, 1993); dramatic changes (paradigm shifts) to business processes, in contrast with incremental improvements (Guimares & Bond, 1996); radical redesign of a business process to gain dramatic improvements in performance measures (Alavi *et al.*, 1995); the analysis and design of workflows and processes within and between organisations (Davenport & Short, 1990) as summarised in Table 2.2. However, it also came with a wide variety of interpretations (Prujit, 1998), development and imposition of organisational control systems to secure compliance (Blair *et al.*, 1997; *via* Prujit). Biazzo (1998) reemphasised that the definition of business process reengineering is as described by Venkatraman and BPR was considered to be a specific strategy for using information strategy. Biazzo further reported that reengineering processes entails changes, which affect not only organisational structures but also operating mechanisms, management style, the characteristics of personnel and the culture. The structural elements of the organisation are not

perceived as limits and current work methods, criteria and rules are all questioned. Biazzo summed up the content and process of organisational change which underlie BPR as follows:

1. The organisation is a collection of processes which can be reengineered 'scientifically' and systematically;
2. The nature of change is revolutionary and consists of:
   - The passage from functional units to process teams;
   - A move from simple tasks to multidimensional work;
   - Changes in power relations towards worker empowerment and change from a 'bureaucratic' culture to one based on customer satisfaction.
   - Changes in managerial behavior from supervisors to trainers.
3. Planning for this change is top-down and the pace of change cannot but be discontinuous.

Venkatraman (1994) proposed that a company can approach business process redesign (a term used by Venkatraman to imply reengineering) from two different perspectives; 'seek efficiency', which focuses dominantly on rectifying current weaknesses, and 'enhance capabilities', which aims to create strategic capabilities for future competition, such as shown in the Figure 2.3.

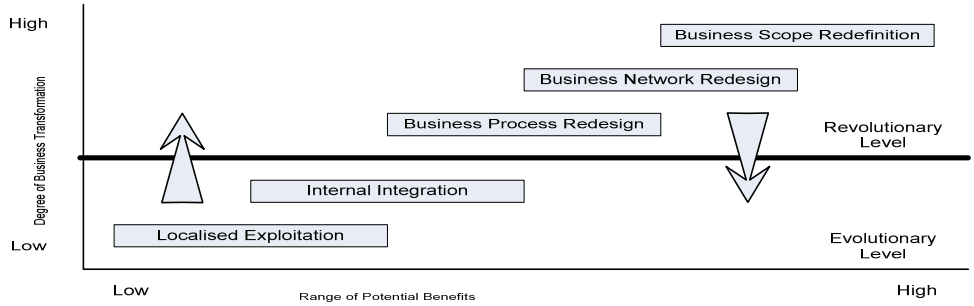

Figure 2.3 Alternative approaches to business process redesign (*from* Venkatraman, 1994).

Following this, Henderson & Venkatraman (1999) proposed that the organisation in the IT marketplace involves 3 sets of choices; ***information technology scope*** that support current business strategy initiatives or could shape new business strategy initiatives for the firm; ***systemic competencies*** that could contribute positively to the creation of new business strategies or better support of existing business strategy; ***IT governance***, for obtaining the required IT competencies.

Similarly, the internal IS domain must address at least 3 components; ***IS structure***, choices that define the portfolio of applications, the configuration of hardware, software and communication and the data architecture that collectively define the technical infrastructure. This is analogous to the choices within the internal business strategy arena to articulate the administrative structure of the firm dealing with roles, responsibilities and authority structure; ***IS processes***, choices that define the work processes central to the operations of the IS infrastructure such as system development, maintenance, monitoring and control systems. This is analogous to the need for designing the business processes that support and shape the ability of the firm to execute business strategies; ***IS skills***, choices pertaining to the acquisition, training and development of the knowledge and capabilities of the individuals required to effectively manage and operate the IS infrastructure within the organisation. This is analogous to the skills required within the business domain to execute a given strategy.

Henderson & Venkatraman further cautioned that as IT emerges as a critical enabler of business transformation with capabilities to deliver firm level advantages, it is imperative that firms also pay attention to the three external components of IT strategy. Table 2.3 summarises some researches conducted on the implication of transformation.

Table 2.3 Research conducted on the implication of transformation.

Researcher	IS Context	Change/Impact Context	Level of Analysis	Methodology	Contribution
Kathuria, *et al.*, 1999	A variety of IT applications for various functions of manufacturing	General manufacturing and Information Technology Adoptation	Manufacturing Organisation	Development of a Decision Support System with Field Study	Provisions of an information system(tool) that identifies IT applications that are aligned with competitive priorities and process structure
Braganza & Ward, 2001	Organisational innovations	People	Technology organisation	Semi structured interviews, primary and secondary data	Strategic innovation programme as the Board saw future prosperity, growth and profitability being derived from the sale of people's expertise and knowledge in project management, IT consultancy, process consultancy and system integration

2.2.2 Perspectives from the Publishing Industry

Eisenhart (1994) cited that the paradigm shift from traditional publishing to Information Age publishing embraces a new view of the publishing business, a view that is based on the content of the communication, not the format. The Information Age publisher conceives of his chief offering-services as well as products-as ideas and information, not the physical products which embody them. It is the content, often of a proprietary nature, that is the publisher's chief asset, and value is added to it in new ways by packaging in different media formats, both prints and electronics. Thus, the definition of publishing expands as the print publishing paradigm yields to the new paradigm that includes both print and electronic formats, as illustrated in Table 2.4.

Table 2.4 The paradigm shift to publishing in the information age (*from* Eisenhart, 1994).

	Traditional Publishing	Information Age Publishing
View of Business	Format-based	Content-based
View of Offering	Product: Books, Magazines, etc.	Products and Services: Ideas, Information
Media Formats	Print	Print and Electronic
Technology Orientation	Technology-bound	Technology-inspired
Process Technologies	Mechanical	Electronic
Messaging Symbols	Words, Numbers, Still Images	Words, Numbers, Still Images, plus Moving Images, Voice, Sound
View of Customer	Reader	Reader-Viewer-Listener-User
Marketing Orientation	Product-focused	Market-focused
Communications Flow	One-way: Point-to-multi-point, Disconnected	One-way and Two-way: Disconnected plus Networked
Distribution Method	Physical	Physical and Electronic
Distribution Cycle	List, Periodicals	List, Periodical, Open Channel
Management	Format-specific	Integrative

Papow's (1998) model (Table 2.5) draws on the key organisational models of the past but places them in a new context. As an analytical framework, it gives insight into where the publisher can focus attention for adding value to the customer's business in the mid-term and into the longer term. Papow's integrated enterprise model is inline with the description by Venkatraman (1994). Evans (2000) proposed 3 scenarios (Table 2.6) for the role of publishers in the transformation.

Table 2.5 Papow's model of the enterprise solutions framework and its relevance to publishers.

	Data	Information	Knowledge	Work
Extended Enterprise	Online sales and other transactions with customers and suppliers	Connecting to outside stakeholders	*** Operating alliances; working with/within market interest groups	*** Using cyberspace as the principal business space
Integrated Enterprise	Building corporate databases and other corporate applications	** Encouraging cross-functional communications	*** Leveraging intellectual capital and best practices	*** Re-engineering business processes
Automated Enterprise	Using workgroup data systems and databases	** Encouraging cross-functional communications	** Enabling collective discoveries and decision making	*** Improving conduct and control of workflow
Empowered Individual	* Enabling data creation, access or usage	** Enabling information access and authoring	** Enabling creation, access and distribution of expertise	*** Assuring integration into workflow systems

* Publisher as information provider
** Publisher as orchestrator of interactivity
*** Publisher as consultant or change agent

Table 2.6 Evans model of transformation.

	Information product or service on offer	How?	With Whom?
Publisher as information provider	Industry information: news; technology process, business information	Supply of information to the doorstep of the company served	Alone or with other publishers on collaborative projects or linked systems
Publisher as orchestrator of interactivity	Customised information of specific relevance to the firm; answers to specific enquiries; access to network of experts	Integrated into internet systems and internal information systems monitoring external environment	With internet companies or systems houses serving firms' information systems needs
Publisher as consultant or change agent	Reengineering of business processes to replace current business models with internet centered models in virtual space	Integrated services including consultancy offering to change way of working and capacity for adaptability	With high quality technology consultancies

However, Evan's model on reengineering places the Publisher as the consultant or change agent, but with a focus on the integrated enterprise. This supports Venkatraman's 'seek efficiency' approach towards business process

redesign, which focus on operational excellence with a fixed business network and business scope (Table 2.7).

Table 2.7 Some views on business process redesign.

Researcher	Reengineering views	Directions	Focus
Venkatraman, 1994	Localised exploitation, internal integration and business process redesign	Seek efficiency	Operational excellence within a fixed business network and business scope
Eisenhart, 1994		Integrated management and networked communication	
Papow, 1998	Reengineering business processes	Cross-functional communications	Leveraging intellectual capital and best practices
Evans, 2000	Reengineering of business processes to replace current business models with internet centered models in virtual space	Integrated services including consultancy offering to change way of working and capacity for adaptability	With high quality technology consultancies

2.2.3 Issues in E-Transformation

2.2.3.1 Managing contents

Maccoll (2001), pointed out that a Content Management System (CMS) is a system used to manage the content, documents, records, correspondence or processes of an organisation, thus it aims to separate the presentation of content from its creation and management allowing for example, websites to be constructed collaboratively by authors who need not be aware of the intricacies of website creation and maintenance. Feeney (1985) reported on the use of a database management program 'to keep track of all elements' which integrates text editing and text management functions. However, the functions are limited to keeping track of files and creating text. Sanford (1991) suggested that an effective support system for an editor should focus on redefining and expanding the bounds of rational behavior by increasing the editor's information processing capacity. However, Sanford also argued that for any system to be effective and to achieve the desired goals, a clear and in-depth understanding of the factors which influence the structure of its processes and outcomes must be achieved.

Following this, Bocchi (1998) reported that the main problem with most intranet deployment has been the lack of an overall plan to match design, content and application with corporate priorities. This is supported and expanded by Butler & Murphy (1999), in their research on the newspaper industry where there exist the need to streamline internal workflows, to transform the mindset of the employees, to search for the right strategic partners and to strengthen its online network.

According to Harris-Jones (2004), content is a real business issue where over 90% of all content is unstructured. Therefore, a content audit should be performed to understand the organisation's content, thus a content management strategy could be developed. Content management is only part of operation management that deals with data, knowledge and information generated, kept and transferred or captured by the publishing industry across its units and subunits. A sound CMS and achieving strategic fit also requires the integration of decisions and actions across independent subunits in an organisation. According to Butler & Murphy (1999), without strategic fit among activities a company will find it difficult to create corporate advantage. Therefore, they stress the importance of reconfiguration of company activities and the realignment of the entire system. However, Evans (2000) was concerned that there is too much inertia, even while it is clear that many publishers are adapting to automating their product lines *via* internet.

2.2.3.2 Transformation in the publishing industry

Recent history clearly shows that companies that have benefited most in e-business activities are those that either provide a fundamental service or brick-and-mortar companies that approached e-business more judiciously (Gibson, *et al.*, 2003). Brick and mortar companies such as Ford Motor Company, BarnesandNoble and Britain Grocery Works have assimilated e-business into existing business activities. Already successful in conducting business in standard ways, these companies approached e-business with the same sound practices they applied in expanding their businesses in other ways. In the face of daunting technical challenges and a volatile business environment, brick-and-

mortar company will need to quickly understand the how-to's of building an e-business. What they desperately need is a simple, comprehensive model that represents the fundamental process that must be supported to effectively manage an internet commerce operation (Scarpa, 2000). Though these processes parallel those of traditional commerce, they must be tailored to the challenge of doing business online.

According to Gibson *et al.* (2003), in the publishing industry, e-transformation of businesses requires the implementation of an e-business architecture or model that could run better business in the publishing industry. This is derived from the common views of e-business that focus mainly on the delivery part of the publishing system. Gibson *et al.* further believes that an e-business architecture(s) or model(s) in the publishing industry will provide a better and improved e-transition in the industry, and yet, making that transition means understanding and anticipating the changes that occur in every aspects of the business; culture, people, business model, organisational model, application model, management process and technology.

Gibson *et al.* further pointed out that to enable the implementation of a novel, sustainable and competitively viable model(s) for the publishing industry, it is crucial to address the important aspects or key factors of the business. It is also believed that to conduct such research, an extensive literature research should be available to help understand the situation better. According to Gibson *et al.* (2003), in a cursory review of the literature on e-transformation, no comprehensive study was identified that provided insight regarding important issues related to implementing e-business, the more so on the publishing industry.

In digitising enterprises, technology executives must recognise that their companies can create viable e-business models only by attending to the fundamentals of agility and flexibility (Malhotra, 2001). Most CIOs[21] and CTOs[22] and their technology managers will need to cope with the integration of new e-

[21] Chief Information Officer
[22] Chief Technology Officer

business enterprise applications with the traditional brick-and-mortar information architectures and infrastructures. In addition to enabling the technology, Malhotra emphasised that a better understanding of organisational cultural issues and their strategic implications is critical to the successful implementation of e-business technology architectures.

According to Gulker (2004), ever since the boom in the electronic environment, the internet has become a magnet for businesses of all kinds, chief among them publishers. Businesses, from giant media companies to one-person home publishers, want to know if and how the internet can be used to make money through publishing. The inducements are clear. WWW[23] is probably the lowest- cost publishing medium in the history of civilisation. However, Gulker also pointed out that the biggest drawback may be that it is a new medium that traditional publishing cultures find difficult to understand and exploit. Thus, many new reports on the book publishing industry are in the direction of customer-focus, interface and e-commerce such as reported by Fortin *et al.*, (2002) that future development on the web as an e-commerce platform will increasingly depend on understanding the process by which people will use this new communication technology.

According to Miles & McLennan (2001), despite all these, the e-revolution in book publishing has been slow in developing. Observers generally blame the technology- it is not good enough yet, publishers have not figured out how to deliver their product, and consumers are not ready to give up paper for pixels. But perhaps, a bigger reason is the industry itself. Traditionally, book publishing has been an intensely collaborative effort, linking agents, authors, editors, designers, artists, compositors, printer, proofreaders, publicists and wholesaler, which will be described more in later sections. Miles & McLennan (2001) further pointed out that the e-evolution has so far failed to take place because each of the links in the existing chain has its own access to new technology, and each is attempting to configure the others to its own advantage. People often talk about the efficiency of the market system over planned economics. In theory that is

[23] World Wide Web

true. However, research has consistently shown that in most industries, large numbers of buyers and sellers fail to connect with each other. This leads to higher costs, lower innovation and reduced productivity. In addition, there are heavy marketing, sales, and procurement costs just to get a subset of potential buyers and sellers together (Oliver, 2001), confirming the need for an integrated enterprise suggested by Evans earlier.

The use of ICT permits, but does not automatically lead to, more specialisation of roles in the value chain, with most researchers in the IT and IS domain concentrating on 'core competence'. Oliver claimed that, there is some confusion, for example, in the book and magazine chains about what exactly constitutes the core competences or key value-adding activities of some of the intermediaries in the chain.

The convergence of new technologies, hypercompetitive markets and 'heat-seeking' financial and human capital that quickly flow to new and untested business models now threatens a number of traditional business models and processes (Cross, 2000). According to Davenport *et al.* (2001), while companies have emphasised important technology and data infrastructure, they have virtually ignored the organisational, cultural and strategic changes necessary to leverage their investments. Davenport *et al.* (2001) further suggested that decisions must be made in the context of a particular business strategy, a particular set of experience and skills, a particular culture and organisational structure, and a particular set of technology and data capabilities.

Pertaining to e-publishing, this type of business suggests even more innovative online product and service possibilities for the new millennium (Baker & Baker, 2000). A key issue in this type of commerce presence is not just scalability, but cost-effective scalability. Not all architectures scale, and if they do, the cost of scaling them may be substantial.

2.2.3.3 Transformation in the public sector

Moon & Norris (2005b) defined e-government as the electronic provision of information and services by the government, 24 hours per day (Norris, Fletcher &

Holden, 2001). Prior to this, Dawes *et al.*, (1999) acknowledged that the web promises services, quality, efficiency and convenience, while Pardo, *et al.* (2004), emphasised that the political environment of government agencies exerts strong institutional and situational influences on information integration. Boar (1999) argues that due to the need for integrated information at all levels of government, interorganisational information integration can no longer be pursued in an *ad hoc* approach that primarily relies on intuitive understandings of the way government operates. Hence, information integration demands that the work processes of multiple organisations be both understood and mutually adjusted (Pardo *et al.*, 2004).

There is an increasing emphasis on the importance of knowledge sharing for organisational performance and effectiveness in both the private and the public sectors, where sharing knowledge and information is also an important factor in discourses on electronic government (Kim & Lee, 2006).

Adoption of e-government has been driven more by government improvement than by technological innovation, has been preceded through several phases of information technology (IT). The adoption of the internet is perceived to contribute to the improvement of administrative efficiency rather than to administrative changes in the role of staff and working process, is said to expand and extend the ability of government organisations to serve their constituencies and to promote a host of other, mainly positive benefits to both government and its citizen (Norris & Moon, 2005a). According to Sundberg & Sandberg (2006), e-government, like e-business, requires a business process change and in recent years, business process approaches have become increasingly popular in the public sector.

Information technology enablers provide strategic advantages for government to improve decision making and enhance the quality of services and programs. Sharing of knowledge and information is the foundation for development of integrative applications, resources sharing, effective adaptation to new environments, and the enhancement of organisational learning (Andersen *et al.*, 1994; Bouty, 2000; Kraatz, 1998; Zucker *et al.*, 1995). According to Dawes

et al. (1999), apart from offering citizen access to information and services, other potential benefits are improving the access at a reduced cost to users, a user-friendly interface, the ability to streamline business process, the ability to integrate diverse systems and data sources, shifts processing away from expensive mainframes while increasing the longevity of legacy systems, enabling collaboration. Several interconnected organisations would provide seamless, readily understandable information and services (Gore, 1993).

Transformation also presents significant challenges to the public agencies as agreed by Dawes *et al.*, (1999), where, political and technical factors may present serious barriers to the effectiveness of this sharing and the success of electronic government initiatives (Dawes, 1996; Landsbergen & Wolken, 1998; McCaffrey *et al.*, 1995). Barriers describes by Zhang *et al.* (2004) includes barriers to knowledge sharing, technology barriers, organisational barriers, legal and policy barriers which are also shared by Belanger & Hiller (2006). Belanger & Hiller, 2006) contended that it is not clear that citizens will embrace the use of such services. However, the development of separate operating procedures, control mechanisms, information flows, and work flows make such integration exceedingly difficult, leading to serious problems, quick disintegration, or outright failures of information system initiatives (Pardo *et al.*, 2004). Moreover, public sector organisations face a different situation from the private; control over their existence is held by publicly elected bodies and these organisations generally face multiple objectives. Belanger & Hiller (2006) found that the major problems lie in the obstacles of managing cross-functional boundaries, while the lack of defined processes and scattered efforts could be an explanation for the lack of improvements.

Even though specific differences in various e-government situations may exist, the results have important implications to e-government knowledge sharing practices. Achieving the promises of electronic government requires policy makers, managers, and researchers to address those barriers that are deeply imbedded in the existing interorganisational structures and processes (Pardo *et al.*, 2004).

Belanger & Hiller (2006) added that the policy of consumer-centric e-government focuses on citizen opinion, whereby e-government initiatives must specifically analyse e-government decisions with regards to privacy of information. Meanwhile, Norris & Moon (2005a) suggested that e-government initiatives will bring managerial and organisational change because these activities affect both internal and external work procedures and managerial relationship. In the publishing industry, the changing technological environment seen declines in its printing volumes, printing revenues and document sales (Koontz, 2004). McLoughlin & Cornford (2006) stated that transformation in the public sector implies changes in structure, processes, working practices and corporate cultures.

Kettl (2000) stated that transformation in the government has two effects, it has strained the traditional roles of all the players which resulted in changes that present new challenges on the traditional institution and their processes and secondly, the new changes have strained the capacity of government and their non-governmental partners to deliver high-quality public services.

Overcoming challenges and barriers, Belanger & Hiller proposed a framework that explores the complexities of e-government by recognising the various constituents and the different stages of implementation of e-government, incorporating both electronic government and electronic governance relationship. Dawes *et al.* (1999) proposed five threshold factors; agency technical infrastructure, user capabilities, cost, managing information content and security, where the public sector needs to deal with it for special reasons. However, (Else, 2002) suggested on radical change by totally changing the whole process while the less radical suggestions includes a change of roles in administration. Government transformation today is linked to initiatives such as eGovernment and interagency synergies, demonstrating a move beyond downsizing and into the area of strategic organsiational transformation. McLoughlin & Cornford (2006) suggested that a processual approach would see change in more strategic terms and as a means of organisational transformation where there is a need to understand transformation as both organisational and

socio-technical phenomenon and developing management practices appropriate to the emergent and on-going character of the change required, that many of the goals of e-government are likely to be realised. The effective implementation of e-government requires appropriate leadership, change and project management skills.

Lenk (2002) stated that e-government is predicted on the assumption that public services could profit from the internet in about the same way as commerce did with the prospect of e-commerce. Hence, there is a need to acknowledge that typical public services are provided through a range of business processes which, at one end comprise fully automated standard processes and, at the other, highly complex and unique processes where human discretion and appreciation stands central in making the decision of delivering the service. If e-Government remains confined to standardised processes on a simple nature, its potential cannot really be brought to bear on the transformation of the large field of more complex processes which are characteristic of many policy sectors. The more important is the large range of opportunities to design business processes in new ways using IT to support human activities including decision making.

O'Neill & Sohal (1998) conducted an empirical study to quantify the use and success of business process reengineering within 500 Australian organisations. Among others they confirmed that as well as confusion existing in the literature as to what exactly constitutes business process reengineering, different organisations and industrial sectors place differing emphasis on the many outcomes possible with BPR. Their research shed a light on the issues of implementing BPR from the public sectors perspective. Definitive outcomes are also described by Davenport & Short (1990) as the analysis and design of workflows and processes within and between organisations, and by Hammer & Champy (1993) as mentioned earlier.

Motwani *et al.* (1998) examined and classified current BPR literature and proposed a theoretical framework to business process reengineering as guidance through the process of innovation and change. They also identified several issues such as the need of more research to identify and eliminate on the regulations,

attitudes, policies and practices which may be an impediment to BPR efforts. Other issues include the following:

i) The need to address an appropriate business process architecture;

ii) The need of a more comprehensive and comparative case studies of successful implementation that would be helpful to those who are still struggling with this stage;

iii) Elaborate studies into good practices and the detailed steps undertaken towards BPR efforts, that outline specific performance measures applied during the program, that study the link between BPR and strategy, and that study the impact of human factors as a result of BPR, which data should be obtained from on-site observation, questioning, and performance of data analysis which will lead to hypotheses to be measured by questionnaires sent to corporate leaders who have been successful in implementing BPR or other reliable methods.

Thong *et al.* (2000) conducted an in-depth case study at the public housing authority in Singapore to explore and identify unique characteristics of BPR in public organisations. They concluded that;

i) in the absence of traditional market indicators, public organisations need to adapt performance indicators from the private sector to set benchmarks for improving the current processes;

ii) a revised incentive structure to support the redesigned processes is critical to the public organisation's success in reengineering; and

iii) reengineering and IT should be viewed as an integrated strategy.

Research by Thong *et al.* not only placed the researches on the private sectors as the benchmark but also proposed a unique structure in the public sector as one of the issues in reengineering.

Kapurubandara *et al.* (2004) conducted a study using the 7E's (Figure 2.4, Table 2.8) in e-transformation, a model developed by the University of Western Sydney, which is being successfully used with SMEs in Australia, is applied as the approach to e-transform industries in developing countries towards e-Business. In this case, the ceramic industry sector in Sri Lanka is being used for the study. Their report concluded that the existing e-transformation model can be used but

with modifications to incorporate the issues and problems specific to developing countries. These issues should be addressed at 4 levels as shown in Table 2.9. Though their research area is different, they placed the transformation issues in the light of the criteria of the public sectors.

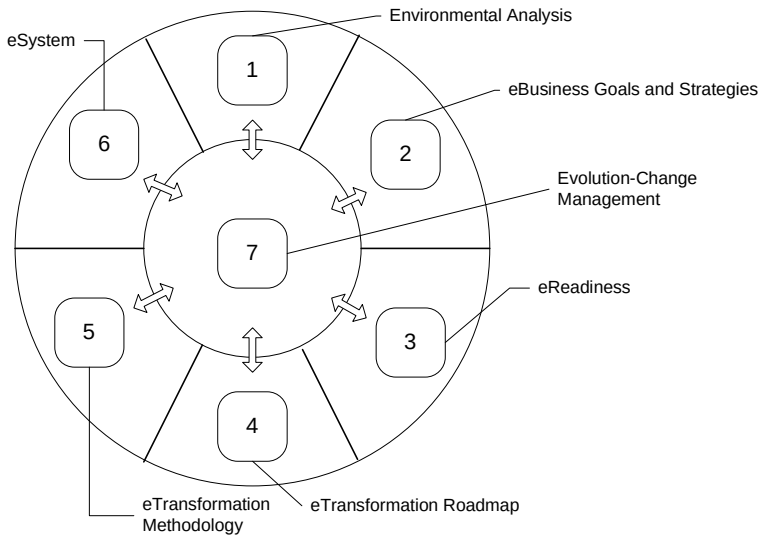

Figure 2.4 The 7E's in e-transformation (*from* Kapurubandara *et al.*, 2004).

Table 2.8 Stages in the 7E model in e-transformation (*from* Kapurubandara *et al.*, 2004).

Stage	Significance	Activity/Methodology
1. Environmental Analysis	To understand the global IT and business trends and the sector's strategic situation	Understanding of global trends in business and IT SWOT analysis, Industry analysis (Porter's Forces)
2. e-Business Goals and Strategies	Develop business goals and strategies to gain competitive advantage	Develop eBusiness strategies and adopt ebusiness models
3. eReadiness	eReadiness of the industry and the enterprise under consideration	Questionnaires to measure eReadiness of the internal and external entities
4. e-Transformation Roadmap	To develop a specific path to proceed for the organisation	eTransformation roadmap and the convergence model
5. e-Transformation Methodology	eTransform the organisation in an incremental way	The evolutionary eTransformation methodology
6. e-System	Provide support and maintenance of the implemented system	Develop IT policies, security, support, maintenance mechanisms
7. Evolution-Change Management	Management of the proposed changes in an evolutionary manner	Model for organisational change

Table 2.9 Issues in implementing e-transformation in Sri Lanka (*from* Kapurubandara *et al.,* 2004)

Levels	Issues
Organisational level	Infrastructure, business process, management support, staff and skills development
Industry level	Formation of strategic partnerships, quality of products and services offered, infrastructure related issues, creation of awareness in e-Business
National level	Government support for infrastructure development and implementation of government policies and regulation
Global scale	International partnership for infrastructure development, usage of online and offline marketing strategies and web-based strategies

Ho & Ni (2004) conducted an empirical study to explain the development of e-government at the Iowa County Treasury Offices. To empirically test their hypotheses, they surveyed ICT to report how these counties managed information technologies and what features of e-government services they had adopted. Based on the survey results, they analysed how internal and external factors influence the number of e-government features adopted. By using a framework that integrates both internal and organisational factors and diffusion

theories, they confirmed that workload is a significant factor in e-government adoption decision. They also found that advancing into e-government could be done easily as long as policy makers want to have it done. The decision to offer more e-government features requires more significant push and pull from other forces within the organisation. The limitation of the study is that they only focused on the political and organisational factors that motivate decisions on web development and do not analyse how personal and professional networks act.

2.2.3.4 Disruptive innovation

Successful organisations can fail through inability to recognise the distinction between sustaining technologies and disruptive technologies where the ability to recognise and exploit disruptive technology is critical to the sustainable success of businesses.

More than 30 years has past since the first conception of e-books in the Guttenberg Project in the 1970's. Yet, not much has been seen on the innovations of e-books since then. E-book production is often merely the reproduction of the traditional physical version and most of the real e-books available are by authors publishing their own work without the supervision of professional editorial houses. Most innovations in the e-book area are on the supporting software, readers, e-ink, and e-paper. After more than 30 years, the e-book is still considered to be in its' infancy. The editorial phase of electronic publishing, where the e-book is transformed from a raw material into a commercial asset may be a disruptive innovation.

The SAILS methodology based on Vojak & Chambers (2004) proposes five different types of disruptive contributors commonly observed:

1. Changes in industry **Standards;**
2. Changes in **Architectures;**
3. Various forms of **Integration** and **Disintegration** of elements;
4. **Linkages** between various elements across super system; and
5. **Substitutions** within the subsystem.

2.2.4 Summary of E-Transformation Literature

From the literature, it could be concluded that e-transformation could be divided into 2 sectors, the private sector and the public sector. Due to the absence of indicators in the public sector, indicators from the private sectors need to be adopted to set the benchmark. Hence, the transformation views of Venkatraman and others are adopted. Several requirements are needed to transform an organisation, such as new ways of thinking, running businesses and researches; a holistic understanding of how the entire firm operates in its business environment while the key areas are information system and operation management. The main issues discovered are to understand the changes, operation, environment, organisational issues and implications of e-transformation.

2.3 The Publishing Industry Literature

2.3.1 The Conventional Processes

The traditional publishing process consists of the following value chain activities such as shown in Figure 2.5;

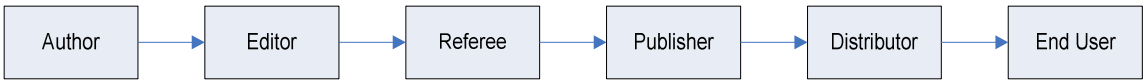

Figure 2.5 Value chain activities of the publishing industry (*from* Scupola, 1999).

These processes vary from one publishing house to another and from one country to another. It is the norm that the processes of production could be divided into editorial, which comprises of acquisition of titles, management of manuscripts, copyright, graphics and illustrations; prepress, which consists of the typesetting of manuscripts and proof reading, followed by printing and lastly distribution. The administration processes should include financial administration, promotion and marketing as shown in Figure 2.6.

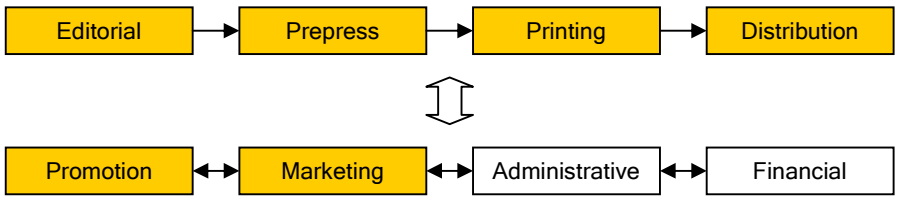

Figure 2.6 Processes involved in the traditional publishing industry (compiled by author based on DBP[24]).

Over the years, as the industry matured many parts of these processes were outsourced and contracted to other suppliers or contractors involved in the publishing industry. Processes depicted in coloured boxes above represents the most outsourced process in the publishing industry.

Eisenhart (1994) categorised the publishing industry as part of the new meta-industry[25]. Publishing is the communications enterprise, which by

[24] Dewan Bahasa dan Pustaka, Malaysia (The case Company)

definition transcends both time and space. The media industries including publishing, has historically evolved apart from one another, with their own cultures, norms, support systems, specialised production and technical skills, and distribution channels. However, the Information Business Map (Harvard University programme in Information Resources Policy) reveals that despite differences in format and delivery systems, these industries are indeed related. They all developed content (Eisenhart, 1994). Montgomery (2002) categorised the publishers as society publishers, university press, commercial publishers and commercial aggregator.

Printing promoted not only standard forms of cataloguing and indexing but also systematic use of such aids to the reader as footnotes, cross-references, page numbering in Arabic numerals, consistent title pages in works, table of contents, links between texts and figures etcetera (Bawden & Robinson, 2000), and is said to be the origins of hypertext which are to be found in those early manuscripts, that allowed footnoting, cross-referencing and page indexing, to give connections between different parts of the text (Bush, 1945).

Eisenhart (1994) and Miles & McLennan (2001) also raised fundamental questions about growth, direction, strategy and basic definitions of the publishing business and admitted, 'A precise vision of that changing business seemed difficult to grasp'. These issues are shared by Stevenson (2000), who argues that publishing is not and never has been in its history, primarily about technology but is about information management and the basis of all content management is a clear system of ownership and reward for use.

Miles & McLennan (2001) also suggested that the traditional book publishing industry has been an intensely collaborative effort where an agent typically sells an author's book to a publisher who engages the editorial components, printer, publicist and wholesaler and sales force to deliver the books to retail booksellers. Authors argue that each link in the chain is an independent business and each attempt to get as much from and give as little possible to the

[25] Industries that historically have developed their own technologies, cultures and institutions.

adjacent links and suggested that there are fears about what directions new technologies might take in the industry.

For publishers, the new economy represents a threat of new competition, an opportunity for repositioning their businesses to meet the new economy and brings the prospect of higher margins than the average in the traditional physical environment. In serving the needs of the industrial markets these publishers needs to take full account of the extent of the change that is likely to happen to their customers. It is simply a question of firms changing their product lines. They will be involved in radical restructuring so that the very basis of the firms will change. The change publishers foresee includes the increased need for more customised sources of information. Needs may change as the Internet economy moves from an economy based around manufacturing to one which is more service-oriented (Evans, 2000).

2.3.2 Other Issues in the Publishing Industry

The traditional publishers, particularly those producing medical and scientific texts, have yet to fully embrace this new technology. Such publishers continue to charge high institutional licensing fees for electronic texts, either insisting that print sales are the mainstay of their livelihoods or contending that encoding and other development costs involve major expenses that must be passed onto their users (Ardito, 2000). The changes in technology and user habits will continue to affect all areas of publishing and all markets, gradually forcing traditional print-based publishers to embrace the new paradigm and adopt innovative approaches in response to the changing environment or face decline. Once publishers assess their place in this dynamic environment, they must plot their strategic courses for tomorrow (Eisenhart, 1994).

Bailey (1970) suggested that one of the problems of large publishing houses is because they are too decentralised to enable departments to act independently and with their own personalities, without losing the economic advantages of large size giant publishing house, consists of many divisions, each of which is in fact a publishing house in its own field, with overall services such as

order processing and warehousing supplied and with a comprehensive financial and administrative management.

2.3.3 E-Publishing Business Models

Many of today's internet publishing models are based on the methods of access or delivery of the material such as listed in Table 2.10. However, Eisenhart's (1994) model on the Information Age publishing (which are explained earlier in the chapter) are based on the contents, which is the most valuable asset to the industry, thus providing a solid based on the models to be chosen.

Table 2.10 Types of e-publishing business models (compiled by author).

	Free Access	**Paid access**	**Paid access**	**Paid access**	**Paid access**
Access Based Model	Read and print free Read free pay for print Read and print free, sells hardcopy Read a sample, buy the rest Read free but pay for enhanced services	Subscription Model Trust Services (membership based) Pay per view Authors Pay Person per person Networking Services Read only Libraries subscription POD			
Delivery Based Model		Server-driven Self-terminating Content services ISP Online syndication	Content and commerce	Authors Pay Peer review	Bookface model eMatter model iPublish model
Content Based Model	Content-based Publishing	Proprietary Content Publishing	Digital Library Publishing	Content Franchise Publishing	Recombinant Publishing

2.3.4 Free Access Model

A free access model is a model where customers access the content without having to pay for them, such as the Project Gutenberg model. Colander & Plum (2005) suggested that in journal publishing, free access has not replaced journal publication and distribution, instead, what has developed is a parallel system of

dissemination in which the web posting is not a substitute for the expensive journal publication process, but instead a complement to it.

5 types of free access models available are as below:

i. Read and Print free;

ii. Read Free, Pay for Print;

iii. Read and Print Free, sells Hardcopy;

iv. Read a Sample, Buy the Rest;

v. Read Free but Pay for Enhanced Services.

Colander & Plum (2005) conducted an empirical study on scholarly journal publishing found that technological change impacted the process on two different levels, pricing and administrative issues. They further stressed that reform of these must occur simultaneously to ensure the efficiency of journal publishing.

2.3.5 E-Publishing Issues

Rostek *et al*. (1993) who described the development of *The Dictionary of Art* suggested on a thoroughly planned ventures where detailed editorial guidelines are laid down to ensure overall consistency of the printed work. They stressed that although originally not meant to control the electronic publication process, these guidelines constitute the basis for the formal specification of content and styles for the electronic reference work. Rostek also concluded that a number of these guidelines can be expressed as behavioral specifications of the entities and their relationships and are used to control the network automatically.

Hibbert (1999) suggested that the consequence of various technologies and the explosion of internet publishing will mean that users have access to large volumes of information of unknown quality (van Reeken & Lindenburg, 2000); users will expect free or very low cost information provision for anything except for specialised information; classified advertising, a major revenue earner for the print industry, will move to electronic publishing channels; prices for electronic adverts will be much less than for their printed equivalents; convergence will blur

the boundaries between publishing, media and TV operations while providing a much greater potential audience than a paper publisher could aspire to; the need to maintain turnover and profit means that publishers will be forced to seek revenue outside the traditional areas.

Other issues include cost of marketing underestimated; legal issues (current contracts do not cover electronic dissemination); payment system/pricing. It will not be the technical aspects that will be problematic for publishers going electronic, problems can be expected in marketing, pricing, the way billing is organised (van Reeken & Lindenburg, 2000).

The increasing technical capabilities mean internal tensions tend to form in publishing houses where organisational consequences of electronic publishing should not be underestimated. E-publishing will indeed cause various unexpected organisational consequences and market reactions. The cause is often that automation is not fast enough to catch the complexity of the real world (van Reeken & Lindenburg, 2000). Hovav & Gray (2004), raised the issue on how e-journal are designed to work with current technologies and when the technology became obsolete, unless backward integration is maintained, journal content becomes unreadable. What makes this problem universal is the complexity and cost of conversion and the required technology.

Lonsdale & Armstrong (2000), reported that little work is being undertaken internationally; and believe the whole question of the nature of electronic publishing requires greater national debate to address issues such as the need for new publishing structures that involve co-operation between the various actors involved in the conception, publication, distribution and use of these electronic resources.

Björk & Hedlund (2004), used formal process modeling techniques to propose an online publishing model for the publication and distribution of a scientific publication, such as shown in Figure 2.7. Even though their model overviewed the ideal process, it does not imply the whole production process in

detail. However, this framework could still be used as part of the production phase of this study.

2.3.6 Researches in the Publishing Industry

Table 2.11 Research carried out in the publishing industry.

Author	Areas of Study	Type of Study	Approach	Conclusions/Issues
Lindeborg, 1990	Time in editing and publishing	Traditional publications	Empirical	Sustained management strategy
Björk & Hedlund, 2004	Implications of business models	Online scholarly publications	Formal method	Process model
Cao *et al.*, 2005	Web publishing	Framework for business operations	Case study	Stage activity process model
Anthoney *et al.*, 2000	To understand the challenges to move into the multimedia market	Children's book publishing	Industry survey	Strategy and organisational change Culture change Human resource function
Hean, 1998	Structural changes Strategic implications	Trade books	Industry survey	Technological change Demand shifts Merger and acquisition activities
Homburg, 2003	Peer review system	Online scholarly publications	Case study	Decision making of editors
Davenport, 1994	Infrastructure	Online scholarly publications	Field study	Information management

Table 2.11 gave an overview on researches that has been conducted in the publishing industry.

Lindeborg (1990) conducted a study of the time taken for each step in the editing and publishing of research reports at the Forest Products Laboratory and found that improvement in publication time were due to a sustained management strategy. Lindeborg also ruled out new techniques or procedures or

minimisation of steps in the process and the study was conducted based only on the traditional publishing processes.

Björk & Hedlund (2004) developed a model using the formal process modeling language to study the cost implications of different business models in the online publishing industry (Figure 2.7). In their model, as is the custom with other models for the publicly owned houses, there is room for negotiation of copyright. Their model is also based on the scholarly scientific publication of journals, which has many different specifications than the ordinary books. Their model is a complete model ranging from the phase of submission of the manuscript to delivery, describing each process. Their model could not be used as the complete model in this study because of the lack of focus and description in each task of the editors and the complete ignorance of the administrative phase, which is one of the main task included in this study. However, their model could be used as a basis of this study, with consideration on the production phase provided by Björk & Hedlund, such as shown in the Figure 2.7. Björk & Hedlund also concluded that serious in-depth research studying the way the scholarly communication system is affected by the internet is needed in the publishing industry.

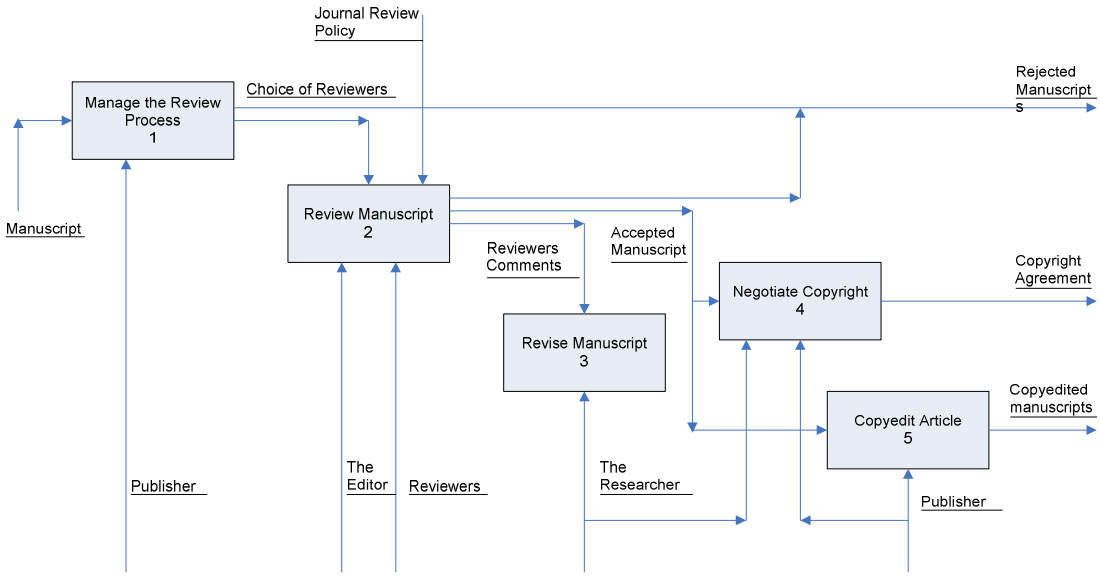

Figure 2.7 Model proposed by Björk & Hedlund (2004).

Cao *et al.* (2005) proposed a general framework that helps Internet companies to streamline their web publishing operations following a systematic approach based on workflow management. They described a stage-activity process model for web publishing. They divided the web publishing operations into 6 stages such as shown Figure 2.8.

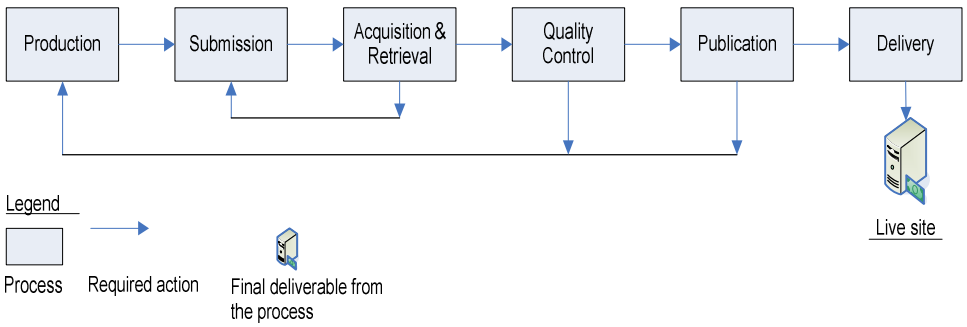

Figure 2.8 Web publishing process model (*from* Cao *et al.*, 2005).

In their staging model (Table 2.12 and Figure 2.9) they proposed an automating web publishing system, they described the details of activities in each operation and the role of each personnel. However, they described a general process model and a workflow management based automating system for web publishing which is an extension of the model proposed by Björk & Hedlund, which could be used in this study but needed improvement on the proposed system to cover a more detailed and in depth study of the production, submission and quality control operations needed by case Company.

Table 2.12 The stage-activity model for web publishing process: Activities.

Stage	Activities
S1 Production - Automate and streamline the production process for textual content development - Provide input function for upload schedule and display order of the contents	**S1 A1** - Develop site template upon receiving job order **S1 A2** - Develop textual contents upon receiving job orders **S1 A3** – Develop graphical contents upon receiving job orders **S1 A4** – Input upload schedule and display order of contents
S2 Submission - Facilitate automatic submission process for all templates and contents - Facilitate automatic submission of upload schedule and display order on submitted contents	**S2 A1** – Submit site templates layout **S2 A2** – Submit textual and graphical contents **S2 A3** – Submit upload schedule and display order of submitted contents
S3 Acquisition and Retrieval - Ensure that submitted contents are received properly and version applied - Write (store) and read all submitted contents to and from central content repository	**S3 A1** – Receives submitted site templates and contents **S3 A2** – Perform file version control on submitted items **S3 A3** – Stores templates and contents in central content repository **S3 A4** – Retrieval of submitted templates and contents from repository
S4 Quality Control - Coordinate all job orders and acknowledgements - Coordinate all approval requests and ensure all submitted contents have proper approval	**S4 A1** – Coordinate job orders and acknowledgement for development works **S4 A2** – Coordinate approval requests and status on submitted contents **S4 A3** – Ensure contents are approved before advancing to publication stage **S4 A4** – Coordinate adjustment requests on submitted contents **S4 A5** – Coordinate and ensure final approval on preview site
S5 Publication - Create preview site using approved contents and its upload schedule and display order	**S5 A1** – Production platform receives approved contents **S5 A2** – Production platform creates and display preview site with approved contents based on uploaded schedule and display order **S5 A3** – Initiate final approval on preview site **S5 A4** – Transfer approved preview site to live platform
S6 Delivery - Upload preview site to live platform upon approval signal - Perform back up and archive functions on old contents based on pre-programmed schedule and procedures	**S6 A1** – Receive uploaded files from preview platform **S6 A2** – Generates live site for public access **S6 A3** – Backup and archive old data based on pre-programmed schedule and procedures

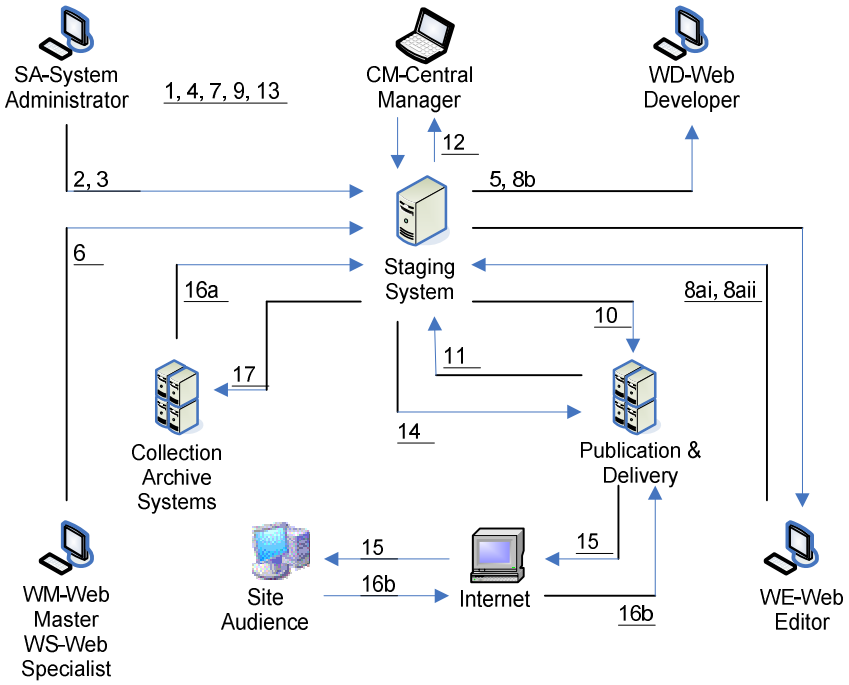

Figure 2.9 Stage activity model (*from* Cao *et al.*, 2005).

Legend

1	Identify users and access rights, defines users architecture.
2	Creates user accounts, assigns roles to users and grant access rights and account to users.
3	Constructs site architecture and inform content manager when done.
4	Informs GD to design graphical layout of templates for channel and sub-channels and pass to WM/WS for technical templates development.
5	Creates and passes graphical design on templates of the site to WM/WS for technical template development.
6	Creates and uploads template layout for the site and seeks CM for approval.
7	Approves site layout and initiates content development job requests with GD and WE.
8ai	Creates and submits textual contents.
8aii	Enters and upload schedule and display order of the submitted contents.
8b	Creates and submits graphical files to related textual contents.
9	Approves or overrides submitted contents and related display order and upload schedule.
10	Uploads approved contents and schedule and display order to Publication and Delivery System in a batch at predefined cut off time.
11	Confirms preview site generated at cut off time.
12	Launches approval request on preview site.
13	Approved preview site.
14	Confirms preview site has been approved.
15	Delivers live site.
16a	Requests for data to be back up.
16b	Requests for site contents.
17	Releases data to be back up.

Anthoney *et al.* (2000) in their research on children's book publication conducted an industry survey to develop an understanding of the challenges facing publishers who have entered the children's multimedia market in the UK in the 1980's and 1990's. Though they did not develop a model, they identified the factors that appear to be critical to the success of publishers in the multimedia market: modification of corporate culture, internal structures and processes, branding of the company's chosen multimedia products, promotion of organisational learning innovation, creativity within the company and sourcing necessary skills effectively. They also found that the production of multimedia product has been developed from a base of printed materials, which is different from the web publishing system. Thus, the submission operation in the children's multimedia production is different from the operation of ordinary trade manuscripts. Their survey is also a general view on the whole publication process without focusing on any particular operation but emphasising the needs of creativity work.

Hean (1998) studied the evolution of the book publishing industry, focusing on its' structural changes and strategic implications. Hean reported that the structure of the industry were affected severely by three powerful forces; technological change, demand shifts and mergers and acquisitions. These forces produce many implications that affect the way the industry should respond. According to Hean, the onset of the information technology is a harbinger of many more changes in the structure of the industry, and for many industry executives, these changes spell fear, uncertainty and doubt, what Hean called the FUD[26] factor. Like other researchers (Homburg, 2003; Davenport, 1994) Hean also gave an overall general view of the evolving industry, where Homburg focused on the publishing process in journal publications and Davenport on the economics of digital publishing in journal publications.

[26] FUD Factor; fear, uncertainty and doubt

2.4 The Editorial Phase Literature

The mystery of editing does not have its eras and epochs[27] (Bentley, 1973), a view which was later argued by many scholars. The people in even respected and known publishing house and their activities are often rather a mystery and understood only by those who had close experience of them (Halpenny, 1968). Frey (2002) stated that no well-worked out theory on the behavior of editors exists, while Laband & Piette (1994) stated that, "*to our knowledge, no widely accepted theory of editorial behavior has ever been articulated*." In the literature, similar implicit assumptions as those made for referees are current (Frey, 2002).[28]

Before the 18th. century, censorship was widely applied in publishing especially on issues that raised social questions, religion and derogatory quotes on the Rulers. In the era of the Middle English editing, editorial work were mostly on transferring the older English version produced by authors such as Chaucer, Malony, Shakespeare and ancient poetries and romances into modern readable language. The problem of accuracy and the role of editor achieved its first wholly systematic formulation in this era (Edwards, 1987). Greetham (1987) described several methods of editing widely used during the Middle English Editing such as photographic facsimile, diplomatic transcript, best-text edition, genealogical text created by recension, diachronic apparatus, Slavic textological model and social textual theory.

2.4.1 The Role of Editors

In the conventional publishing, editors are the masters of both language and writing and the role of an editor starts from planning the product or the reading material.

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[27] **Epoch** applies to the beginning of a new **period** marked by radical changes and new developments - while **era** applies to the entire period; **age** denotes a period identified with some dominant personality or characteristic and period pertains to any portion of time.

[28] The (economic) literature on journal publication does not offer any theory about behaviour of referees. The implicit assumption is that referees act in the interest of science as a whole. Engers & Gans (1998) explicitly assumed that 'referees are motivated by a concern for the quality of research.'

As quoted by Farkas & Poltrock (1995), the fundamental and defining role of an editor is to improve the document by making changes in the draft they receive from the author. Sheehan (1998) divided the roles of editors as designer, collaborator, producer, webmaster, standard keeper and editor as ethics specialists. Some other roles are as shown in Table 2.13.

Table 2.13 The role of the editors.

Nos.	Role of Editors	Credit
1.	Planning	Farkas & Poltrock, 1995
2.	Coordination the work of writers	Farkas & Poltrock, 1995
3.	Supervising production	Farkas & Poltrock, 1995
4.	Marking manuscripts	Farkas & Poltrock, 1995
5.	Rewriting passages	Farkas & Poltrock, 1995
6.	Responsible for styles	Farkas & Poltrock, 1995
7.	Responsible for grammar	Farkas & Poltrock, 1995
8.	Responsible for usage	Aries Systems Corp.
9.	Responsible for mechanics	Aries Systems Corp.
10.	Write messages to authors	Aries Systems Corp.
11.	Select reviewers	Aries Systems Corp.
12.	Soliciting papers	Aries Systems Corp.
13.	Deciding which ones to publish as submitted, which ones to send back to the author for amendment, and which to reject	Aries Systems Corp.
14.	Style and conventions	Sheehan, 1998
15.	Maintaining standards	Sheehan, 1998
16.	Training of new editors	Sheehan, 1998
17.	Checking the content correctness of a document	Leininger & Yuan, 1998

In the world of publishing, whether it is conventional or electronic, content is the most important asset to the industry. Without content, the industry will not exist at all. At the heart of this are the players manipulating the content to turn it from raw into a presentable, interesting, exciting, readable and saleable asset of the industry. Editors are key players in the content and publishing industry. Without editors, raw contents will not yield the results wanted from the industry. As quoted by Evans (2000), editors add value, which converts data to information by providing more content and relevance, more options and analysis.

Editors work closely with authors in producing a solicited work and authors are dependent on their editors. How authors send in their work to their

editors is normally based on agreement, as long as they keep to the agreeable schedule of publishing. The close relationship between authors and editors is supported *via* telephone calls, e-mails and letters.

Power (1981) concluded that a technical editor is a combination of academic training with practical experience in communication skills, to expedite communications. The editors organise data, check references, write copy, plan layouts, do copy-editing, proofread and in general, facilitate the flow of printed matter. Farkas & Poltrock (1995) described the editors as the project communication expert while Sanford (1991) described journal editors as 'gatekeepers' of science. Sheehan (1998) described editors as the frontline of editorial decisions, and they need methods for deciding right from wrong.

The U.S. Standard Occupational System classifies editors in the Major Occupational Group (MOG) of Group A, as Professional, Technical and Related Occupations. This falls under the same category as Engineers, Surveyors, Architects, Lawyers and Judges, and many more highly skilled knowledge intensive professional occupations. It defined editors as to direct the policies and departments and newspapers, magazines and other publishing establishment, as well as directing the selection, preparation and revision of materials to be printed.

The Australian Standard Classification lists editors in the Major Groups of Occupation that falls under the category of Professional, which also includes Science, Building and Engineering Professionals and many more.

The conventional editors are assigned to edit the manuscripts manually. Today, spell checker type tools inform editors on grammatical mistakes or inconsistencies. In other languages such as the Malaysian Malay language, no such tool exists yet electronically. Therefore, the editing phase is done manually. Editors have no means of checking and editing their manuscripts electronically and have to print out the manuscripts and edit them manually.

As quoted by Feeney (1985), even though text editing programs have been developed, their usefulness is limited to textual rather than subject matter;

human contribution is required to pick up errors of facts and controversial points and to make qualifying comments and suggestions. Editing programs quoted by Feeney includes cut and paste editing and handling of references, indexes and footnotes.

For a manuscript to be approved to be published, it has to be reviewed. In the Malaysian case, a panel is selected to review the title and a summary or abstract of the manuscripts with estimates of schedules and costing will be included in the report. In the peer reviewed journals, the same rules apply where manuscripts are reviewed by their selected peers before it could be published. A more strict reviewing system exists in the guild model of publishing which are practiced by certain institutions. The editing of languages, grammar and so on will be left to the editors. The purpose of the editor is to transmit information accurately and to provide ongoing expert guidance (Power, 1981). In formal publication, apart from peer review, editorial judgments will help to determine the ultimate path taken by the document whereas copy-editing and design will improve the accuracy, readability and navigability of the publication (Frankel *et al.*, 2001).

All large publishing houses have their own house styles. House styles are standards used in the production of manuscripts. In publishing there is The Harvard Style or The Oxford Style, which is used mainly in the UK and The Chicago Manual of Style and many more and each, is different from the other in the ways they write the Bibliography or footnotes and others. What the publishing houses use depends on which house style they adopt. However, editing tools remain the same as the standard ones apply to all manuscripts in all countries. The standard used is as shown in Appendix 8.

In the conventional editing, red ink is used in editing by editors, blue ink used in proofreading by proofreaders. This is to differentiate which corrections are made by editors and which are by proofreaders.

Pullinger (1994) stated a 4 general task to ensure the quality of manuscripts:

1. Peer review – where the content currently sustained and improved by editorial board policy and peer review;
2. Subediting – where quality of content improved by sub-editing;
3. Information design – quality of design that makes access to information efficient for researchers;
4. Presentation – quality of visual appearance/interface that allows the material to be used easily.

Subediting ensures that articles adhere to accepted and standardised conventions and nomenclature and that the language used is understandable.

Design interacts with typography and quality of display. The known characteristics of printed texts for example, that serif typefaces are easier to read than san serif, but conversely for figure labeling, and that right justification of long lines is harder to read than unjustified ragged-right text, themselves depend on the design.

2.4.2 Challenges in System Implementation in the Process of Editing

Editing is the core task in the editorial phase. Editing contributes and extended into the payment system and digital rights management system. Manuscripts have to undergo the editing process to proceed to the following phase. People (editors) need to be trained to become a professional editor. With editing, standard conventions and house styles are designed, developed and used. The editing process ensures the continuity of the consecutive processes in publishing, the prepress and printing or digitising. The significance of editing in the publishing industry is represented in Figure 2.10.

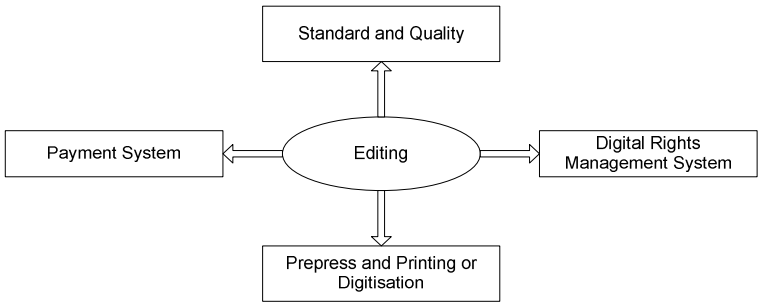


Figure 2.10 The significance of editing

In its contribution to the payment system, the product of editing ensures payment to editors and authors, while in digital rights management system, the product of editing contributes to the determination of the amount of royalty or honorarium to be received by its owner.

Two aspects of editing will need to be determined; copy editing will be conducted by editors and associates while substantive editing will be conducted only by the editors and not the associates. This will therefore contribute to the workloads of editors. Editing also ensures the acceptability of the manuscript to be published, timeliness in the editorial phase and its publication and selection of the appropriate person to conduct the task appropriately.

Hence, it is a challenge to develop a system for the editorial processes that will encompass the four significant aspects of editing; ensuring compliance to quality and standard of knowledge creative works; complementarity's aspects in the payment system and digital rights management system and the continuation of the publishing processes. All these aspects will need to be molded compatibly into their respective extended system.

2.4.3 Proofreaders

The role of proofreaders is different from editors. Where editors do copy editing or substantial editing, proofreaders merely compare corrections made to ensure that no corrections made in ink are left when they are transferred to the printed version. Proof readers also check on technical errors such as the size of texts, size

of contents, indentation, spaces in between words, lines, paragraphs and so on after the manuscripts has been typeset to its required specification.

Proofreaders check proofs by the copy or previous proof and will also query any words or passages which seem to them ambiguous, inconsistent or possibly inaccurate (Crutchley, 1967). Feeney (1985) expressed the 2 main objectives of proofreading as to check for errors and to assess the appearance of the printed product.

2.4.4 The Editorial Phase

In the publishing industry, the editorial phase is one of the core elements that ensure the sustainability of the industry. Reengineering of the editorial phase could involve fully or many processes in that phase. Literature has not much to provide as guidance. Much of it addresses the industry as a whole or the sectors in the industry and rarely on the editorial phase. Many written works on content management and reengineering focuses on the library system. Not much is known to the public as to how the editorial phase has evolved or works or whether its' content asset is managed soundly or if it has gone through a proper reengineering process. Not much is known as to the impact of reengineering of this phase to the industry. Only through understanding their processes and organisation can the publishing houses move into the higher premium value activities beyond merely importing information to the door steps of their clients. It is not simply a question of firms changing their product lines. They will be involved in radical restructuring so that the very basis of the firms will change through e-business (Evans, 2000).

Table 2.14 describes how manuscripts were handled before, how it is handled now and how it might be handled in an electronic environment. Table 2.15 and 2.16 describes the production schedules while Figure 2.10 and 2.11 shows the flow of manuscripts in a conventional setting and electronic setting while Figure 2.12 shows the process flow in an electronic publishing setting.

Table 2.14 Handling of manuscripts *(*From* DBP).

Before Computers/ Typewriters	With Computers/ Desktop Publishing	Electronic Publishing
1. Mss. typed on one side of paper, double-spaced and left hand margin.	1. Same specification applies but software used must comply with publisher's specifications	1. Very specified and software used must comply with publisher's specifications. (More specified such as the exact indentation, the software used, size of mss, text, typeface etc.)
2. Numbered throughout. Late addition written on separate leaves and numbered.	2. Numbered throughout.	2. Numbered throughout
3. Complete materials for preliminary matter, except index which will be compiled when proofs are available.	3. Complete materials for preliminary matter, except index which will be available.	3. Complete materials for preliminary matter including index.
4. Space allowed for any details that must be added later, the fact should be noted and some indication given of the amount of space to be allowed.	4. Indication of any details that must be added later.	4. Not necessary.
5. Illustrations to be separated from mss. and numbered. The numbers should be written in the margin of the mss. to show where each illustration is to appear.	5. Illustrations to be separated from mss. and numbered. The numbers should be written in the margin of the mss. to show where each illustration is to appear.	5. Illustration included in manuscripts.
6. Letterpress printing and block printing.	6. Camera ready copy printing.	6. Electronically delivered and viewed by customers.
(*From Crutchley, 1967*)	(*From DBP**)	(*From Author*)

2.4.5 Production Schedule

Table 2.15 Typical production schedule (*from* Allen & Curwen, 1991).

Stages	Tasks	No. of Weeks
Stage 1	Manuscripts delivered	
Stage 2	Send to reviewers	4
Stage 3	Implement viewers comments	2
Stage 4	Copy edit	4
Stage 5	Typeset manuscripts	4
Stage 6	Author checks proofs and index	2
Stage 7	Correction of proofs etc.	2
Stage 8	Print and bind	6
Stage 9	In warehouse	6

Table 2.16 Electronic production schedule (compiled by author).

Stages	Tasks	Time
Stage 1	Manuscripts delivered electronically	When all data or materials are sent automatically, time taken in the processes only occurs between the stages involved.
Stage 2	Send to reviewers electronically	
Stage 3	Implement viewers comments electronically	
Stage 4	Electronic editing	
Stage 5	Digitisation	
Stage 6	Image manipulation	
Stage 7	Final checking or correction of proofs etc.	
Stage 8	Copyright and header	
Stage 9	Transfer to storage	

The editorial processes including an online editing process, which is defined as all processes involving the editors in e-book production such as shown in Figure 2.10.

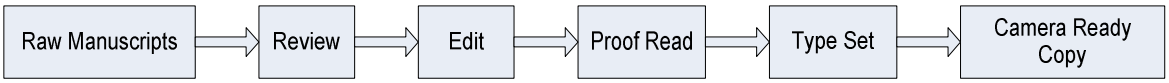


Figure 2.11 The flow of manuscripts in conventional publishing.

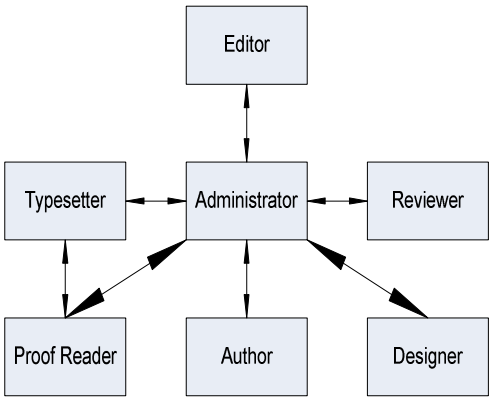


Figure 2.12 Relationship of editors to other players in the publishing industry (compiled by author).

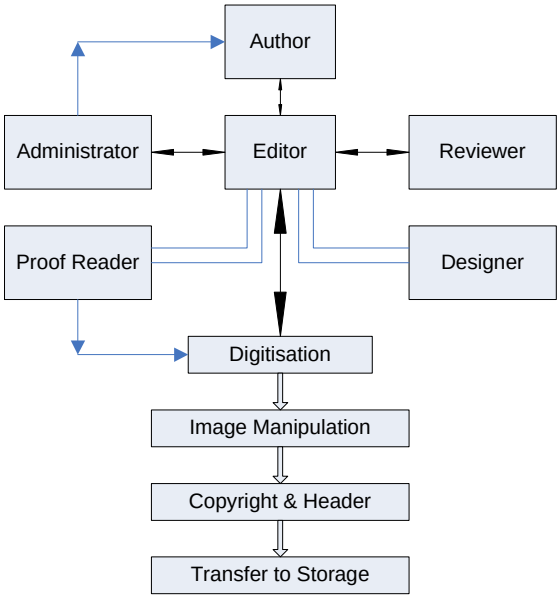


Figure 2.13 Process flow in electronic publishing (compiled by author).

2.4.6 Administration in the Editorial Processes

Administration in the editorial processes does not only involve communications between editors and other players. Editors play the main role of selecting authors, reviewers and artists. They make arrangement for almost everything involving the production of books under their supervision, including those on promotion and delivery. They make costing of the books, approval on stages of

production so as to enable the authors or other players involved to be paid according to what these editors suggested.

Editors ensure that all the book requirements are met such as ISBN, graphics, covers and so on and ensure that the other players assigned to these aspects meet the expectations of editors. Editors are also apt to engage in professional activities such as interviewing, training in and training of, and project management that limit time at the computer or at editing.

2.4.7 The Online Editing

2.4.7.1 The silent model

In this model an editor edits the draft manuscripts from an author using the normal features of the word processor used. This type of model requires no specific tools. According to Farkas & Poltrack (1995), this type of model is effectively used in a very limited form in conjunction with other models. The drawback is that it allows editors to work in the manner of an author. The editor is likely to have less regard for the author's original text and hence, over-edit. This model is 'destructive' since the editor cannot readily recover the author's wording once it has been changed.

However, this type of model was used when CMS[29] was not adopted. With new technologies, corrections and amendments made could be tracked by the system used. Since this model is very simple and does not need any special editing tools, it is preferred to be used in this study. This system will also allow authors to view corrections made by editors *via* the red pencil system and dual screen, if it is in use.

2.4.7.2 The comment model

The comment model is embodied in pop-up notes, temporary footnotes, hidden texts and special symbols placed within the text. This model is not very useful to be used with the word processor since it needs the editor to use a significant amount of extra keyboarding to make the proposed changes.

[29] Content Management System

2.4.7.3 The edit trace model

In this model, the editor works like an author, using all the usual features of the word processing software. However, with this model, the editor's new version could be compared to the author's original document, thus allowing the author to view the draft with the editor's changes. This model works well with MS Office. Editors can view the 'trace' made by the computer and this also appears in real time as the editor works.

2.4.7.4 Traditional model adapted for the computer

In this model, the traditional paper mark-up is adopted for the computer screen. It uses the features of the Red Pencil[30], mimicking the editor's work. The document will be marked-up by highlighting a particular word or phrase and issue a command to add a particular editing symbol to the highlighted text, and once editing is completed, the document could be sent to the authors to be reviewed.

Despite the existence on editorial tools in the market, Rostenberg & Stern (2002) posed questions on the accuracy of the information given on the internet, on who has edited it, overseen it and who has copyedited it. Connaway (2001), also mentioned the fact that, "no workable computer program for editing or copyediting has yet been developed that has gained any broad acceptance."

2.5 Summary

Table 2.17 summarised the issues faced by companies in the transformation process, issues faced by the publishing industry to change into the e-publishing industry and the issues faced by the public sectors in undergoing transformation. It is noticed that in the light of transformation, there is a crucial need to understand the transformation, the e-business, e-processes, the changes accompanying it, the factors influencing it and the cultural aspect of the organisation. In the perspective of the knowledge intensive industry there is also the need to understand the creative aspect of it. From the perspective of the public sector, a fundamental understanding of transformation affecting these

[30] Editing is marked using the red ink, proof reading uses the blue ink

sectors is needed. In this study, we look at these issues by including the perspective of the public sectors, while taking into consideration the affected phase and the consequences that it will lead to an overall transformation of any industry. An in-depth study which is lacking in the areas of editorial and public sector will be tackled and described further in the following chapters.

Table 2.17 Summarised issues affecting e-transformation, publishing and e-publishing issues and issues in the editorial phase as well as those in the public sectors.

e-Transformation	Conventional Publishing	Electronic Publishing	Editorial Phase	Transformation in the Public Sector
Holistic understanding on how the entire firm operates in its business environment	Incapability of text editing and text management functions	Understanding the how-to's of e-business	Clear and in-depth understanding of the factors which influence the structure of its processes and outcomes	Understanding of BPR in the perspective of the public sectors
Issues in operation management	Lack of plan to match design, content and application with corporate priorities (deployment issue)	Business model representing fundamental processes	Effective support system for editors	More research to identify and eliminate regulations, attitudes, policies and practices
Understanding the transformation	Strategic partners to strengthen online network	Understanding and anticipating changes	Administrative issues	Addressing the appropriate business process architecture
Identifying the impact on decision-making, communication patterns, formal and informal structures, authority and control, power and political systems	Too much inertia	Lack of collaborative effort between linking agents-the need for an integrated enterprise	Limited literature on the evolution of scholarship and editorial phase	The need of a more comprehensive and comparative case study of successful implementation
CMS to achieve strategic fit (integration)-reconfiguration of company activities and realignment of entire system	Unstructured content	No comprehensive study to provide insight regarding important issues related to implementing e-business	In-depth study on the impact of the communication system affected by the internet	Elaborate studies into good practices and detailed steps towards BPR efforts
Streamlining internal workflows	Understanding the implementation of viable model	Understanding of organisational cultural issues and strategic implications	Underestimation of cost	The need for a revised incentive structure to support the redesigned processes
Transformation of mindset of the employees	A new medium that is difficult to understand and exploit by traditional publishing cultures	Disruptive innovation, creative disruption, work force disruption	Limited literature on understanding of reengineering the editorial phase	
Sustained management strategy		Understanding the publishing processes	Organisational consequences	
		Cost-effective scalability	Editorial guidelines	
		Pricing issues	Quality	
		The FUD factor	Issues on creative work	
			Legal issues	

3.0 Research Methodology

3.1 Introduction

The aim of all scientific disciplines is to advance knowledge in their field, to provide new or better understanding of certain phenomena, to solve intellectual puzzles and/or to solve practical problems, so is said by Blaikie (1993). Therefore, to increase their level of knowledge, people undertake research to find things out in a systematic way and the approach adopted to fulfil the aims should be well planned and based on the development of logical relationships and meaningful results (Jankowicz, 2000).

This chapter outlines and discusses the research methodology that binds together the purpose of the research, the available theory and the evidence gathered. The topics covered in this chapter include the research philosophy and strategy, the research methods relating to the design of the research instruments and collecting, analysing and interpreting the evidence.

3.2 Research Philosophy

Over the years, many philosophies of science have been proposed, debated, and adopted, with many choices and decisions available in choosing the most appropriate research design for a social inquiry. For Blaikie (1993), it is crucial for scientists to recognise that not only the philosophical positions of scientists must be consistent with the theoretical and observational findings of their sciences, but also being clear about a discipline's philosophy is essential since at the frontiers of the disciplines, it is the philosophy of science that guides inquiry. In the absence of agreement about theories and benchmark methods of inquiry among the social sciences, the only source of guidance for research must come from philosophical theories.

According to Blaikie (1993), to ***explore*** is to attempt to develop an initial rough description or, possibly, an understanding of some social phenomenon. To ***understand*** is to establish reasons for particular social action, the occurrence of an event or the course of a social episode, these reasons being derived from the ones given by social actors. The core of all social research is

the sequence that begins with the description of characteristics and patterns in social phenomena and is followed by an explanation of why they occur. Descriptions of what is happening lead to questions or puzzles about why it is happening, and this calls for an explanation or some kind of understanding.

There are two major known perspectives on which social inquiry is based, the positivists paradigm and the phenomenological paradigm, also known as interpretivism, constructivism, naturalistic inquiry, qualitative enquiry, ethnographic, post-positivism, hermeneutics and humanism (Robson, 1983).

3.2.1 Positivism versus Phenomenological

3.2.1.1 Positivism

Positivism is based on a position known as Naturalism, the belief that there can be a natural scientific study of people and society. It is believed that in spite of the differences in subject matter of the various scientific disciplines, both natural and social, the same method or logic of explanation can be used, although each science must elaborate these in a way appropriate to its objects of enquiry (Blaikie, 1993). Its deductive approach means that theory is deduced through rigorous testing and observation, and seeks to explain causal relationships between variables, i.e. through experimental, quasi-experimental, survey and rigorously defined methods (Denzin & Lincoln, 1994). As said by Patton (1990), the strategy of inductive designs is to allow the important analysis dimensions to emerge from patterns found in the cases under study without presupposing in advance, what the important dimensions will be.

In its philosophical sense, the concept of observation, as referring to the use of human senses is to produce *evidence* about the *empirical* world. Observations in all sciences are also made with the use of instruments, devices that extend the human senses and increase their precision.

3.2.1.2 Phenomenological

The phenomenological paradigm is concern with understanding human behaviour from the participant's own frame of reference. Its approach is such

that reality is socially constructed rather than objectively determined. It is assumed that social reality is within us; therefore, the act of investigating reality has an effect on that reality. Considerable regard is paid to the subjective state of the individual. This qualitative approach stresses the subjective aspects of human activity by focusing on the meaning, rather than the measurement, of social phenomena (Hussey & Hussey, 1997). The phenomenological perspective uses an inductive research approach. According to Robson (1993), this approach develops theories and hypothesis as the result of inquiry. Furthermore, the theories and hypothesis only come after data collection rather than before it and often referred to as hypothesis generating research, which is the opposite of hypothesis testing.

Having considered both perspectives the research study for this thesis adopted the phenomenological paradigm with its inductive approach.

3.3 Research Purpose

Yin (1993) described six different types of case study, exploratory, explanatory and descriptive case studies with each could be single or multiple case. An exploratory case study is aimed at defining the questions and hypotheses of a subsequent study or at determining the feasibility of the desired research procedures. In this type of case study, fieldwork and data collection are undertaken prior to the final definition of study questions and hypotheses.

An explanatory case study presents data bearing on cause-effect relationships, explaining which causes produced which effects. References to the use of 'theory' usually involved the formation of hypotheses of cause-effect relationships, relevant to the explanatory case study.

The descriptive research aims to describe phenomena as they exist; it identifies and obtains information on the characteristics of a particular problem or issue (Hussey & Hussey, 1997). According to Yin (1993), a descriptive case study present a complete description of a phenomenon within its context. Unlike explanatory case study, a descriptive theory is not an expression of a cause-effect relationship. A descriptive theory covers the scope and depth of the

case being described. According to Yin (1993) if you were to describe an individual, an organisation or some other possible subject of a case study, where should your description start and where should it end? What should your description include and what might be excluded? The criteria used to answer these questions would represent your 'theory' of what needs to be described. This theory should be openly stated ahead of time, should be subject to review and debate, and will later serve as the 'design' for a descriptive case study.

In this research, the exploratory method is adopted and a preliminary study was conducted to develop theory, which is crucial in the exploratory method, but does not develop hypotheses of cause-effect relationships, which describes the explanatory case study. However, descriptive research goes further in examining a problem than exploratory research since it is undertaken to ascertain and describe characteristics of the pertinent issues (Hussey & Hussey, 1997).

3.4 Research Strategy

3.4.1 Case Study

A case study can be defined as 'an empirical inquiry that investigates a contemporary phenomenon within its real-life context' (Yin, 1994).

Benbasat *et al.* (1987) pointed out 3 major advantages of case study research:

1. The researcher can study information systems in a natural setting, learn about the state of the art, and generate theories from practice;
2. The case method allows the researcher to answer 'how' and 'why' questions, that is to understand the nature and complexity of the processes taking place...;
3. A case approach is an appropriate way to research an area in which few previous studies have been carried out.

According to Yin (1994), the case study method is most suitable in answering 'how' and 'why' research questions, where the research does not

require control over behavioural event, and when the focus of the research is on the contemporary events.

In IS/IT research, case study is considered to be the most important qualitative research method (Alavi & Carlson, 1992; Orlikowski & Baroudi, 1991) and more relevant to the practice than the survey methods (Benbasat & Zmud, 1999). The case study method enables more variables to be captured in greater detail and lowers the risk of focusing on the wrong issues or variables (Galliers, 1992; Goodhue *et al.*, 1992).

The case study method has repeatedly been used in conjunction with the positivist and interpretivist approaches of social inquiry. The works of Yin (1994) and Walsham (1993) are good examples of IS/IT case studies using the positivist and interpretivist approaches, respectively. Yin (1993) further pointed out that case study research can be based on single or multiple case studies and each can be exploratory, descriptive or explanatory. A single case study focuses on a single case only.

Yin (1989) defined a case study method as an objective, in-depth examination of a contemporary phenomenon where the investigator has little control over events, but McCutcheon & Meredith (1993) elaborated this as a study that involves one or more researchers gathering a considerable volume of data from within an organisation to develop the clearest possible picture of the phenomenon and it may examine a single situation or with multiple case studies. Case study research also generally focuses on current conditions, using historical data primarily to understand or substantiate the information gathered about the ongoing situation. The researcher has little or no capability of manipulating events (in contrast to action research).

McCutcheon & Meredith (1993) pointed out that the various forms of empirical investigation derive their strength from focusing the research on actual conditions. With unfamiliar situations or ones for which there is little theoretical background, the researcher might not know which conditions are relevant or important; moreover, there may be very few examples to study,

especially compared to the number of conditions that must be accounted for (Yin, 1989). Under these circumstances, the case study approach may be the only available means of investigating a problem. Because of its unique strengths, case study research is often used for developing new theories or for ***examining unfamiliar situations.*** Bryman (2000) pointed out that case studies are often useful for providing an understanding of areas of organisational functioning that are not well documented and which are not amenable to investigation through fleeting contact with organisations.

Benbasat *et al.* (1987) further pointed that a case study examines a phenomenon in its natural setting, employing ***multiple methods of data collection*** to gather information from ***one or a few entities*** (people, groups, organisations). The boundaries of the phenomenon are not clearly evident at the outset of the research and no experimental control or manipulation is used.

3.4.2 Units of Analysis

Yin (1993) stressed the importance of defining the unit of analysis in a case study. Because case study permits you to collect data from many perspectives, the unit of analysis needs to be defined clearly to limit the boundaries of the study. The findings of the case study will relate to specific theoretical propositions about the defined unit of analysis. These propositions will later be the means for generalising the findings of the case study-to similar cases focusing on the same unit of analysis. According to Bryman (2000), the unit of analysis is often the organisation, but can equally be either departments or sections in organisations or inter-organisational network and can also be a person. The units of analysis in this research are further discussed in the case study design.

3.4.3 Case Study Design

In this study the single case with an embedded design described by Yin (1993) is employed. According to Yin the single case can serve exploratory, descriptive or causal purposes. Yin further pointed out that the selection criteria must include;

criticality for the theory being tested, topical relevance, i.e. some case is best for the phenomenon being studied and feasibility and access.

Single case studies has been adopted by Markus (1983), which is later described by Lee (1989) as an intensive study of a single case, involving the entire configuration of individuals, groups, social structure, hardware and software in the setting of an organisation. Through interviews and documents, Markus observes events in the way they unfolded in their natural setting. Lee also regarded Markus's work as exemplars for scientific MIS case studies in general.

Blaikie (1993) summarised 3 uses of single case studies:

1. The case study is analogous to a single experiment. It provides a critical text of a theory, to corroborate, challenge or extend it;
2. This is common in clinical psychology and can also be used in sociology for the study of deviant or unusual groups of any kind;
3. Occurs in a situation where some phenomenon has not been studied before; where an opportunity arises to research something that has been previously inaccessible.

In the embedded design described by Yin (1993) different research questions and designs are needed for each unit of analysis. An example of the single case embedded design is provided by Guha *et al.* (1997) to investigate the broad and complex phenomenon of business process change (BPC), where the multiple units of analysis are the firm, the BPC team and the BPC project.

In the author's research, 3 units of analysis were identified:

1. The infrastructure/architecture;
2. The editorial phase;
3. The process.

3.4.4 Selection of Case

This research is a single case study. Prior to data collection, the company has given consent for the researcher to access all data needed for the research

including confidential data. Only data which is considered “highly classified”, which includes government contracts with another private bodies and high-level government agendas are inaccessible because it requires a time consuming, complicated and a different kind of procedure to access these data, which is described in the ‘General Order of the Government of Malaysia.’

A mixture of extreme case sampling and intensity sampling is adopted. Patton (2002) defined extreme case sampling as ‘learning from highly unusual manifestations of the phenomenon of interest’, which is later elaborated by Paré (2004) as a strategy that involves selection of one or more cases that are information rich because they are unusual or special in some way. Patton described intensity sampling as ‘information-rich cases that manifest the phenomenon intensely, but not extremely’ whereby Pare elaborated it as involving the same logic as extreme case sampling but with less emphasis on the extremes. Where extreme cases may be so unusual as to distort the manifestation of the phenomenon of interest, the logic of intensity sampling seeks excellent or rich examples of the phenomenon of interest, but not highly unusual cases. Thus, the logic of adopting both sampling methods correlates with the nature of the case company, which is described as a mixture of business oriented but governmentally controlled and the descriptive purpose adopted which is further elaborated in this chapter. According to Robson (2002), the extreme case provides a rationale for a simple, holistic case study. The extreme and the unique can provide a valuable ‘test-bed’ for which case study is appropriate. Extreme include the ‘*if it can work here, it will work anywhere*’ scenario, to the ‘super-realisation’ where, say, a new approach is tried under ideal circumstances, perhaps to obtain understanding of how it works before its wider implementation.

3.4.5 Research Strategy Selection

This study began with developing a theory base on the exploratory and descriptive approach design. As mentioned by Yin (1993), in a descriptive case, the criteria used to answer research questions on what, who, where, how many and how much would represent the ‘theory’ of what needs to be described. This

theory should be openly stated ahead of time, should be subject to review and debate, and will later serve as the 'design' for a descriptive case study.

As descriptive research requires adequate prior knowledge about the subject area under investigation (Robson, 1993), a preliminary study in the area, and organisation researched was conducted. The exploratory approach induced theory from the preliminary data, and this is supported by a literature review approach and later used to determine the theory of what needs to be described for the focus study.

3.5 Data Collection Methods

Case study research typically combines multiple data collection methods. Collecting different types of data by different methods from different sources produces a wider scope of coverage and may result in fuller picture of the phenomenon under study than would be achieved otherwise (Bonoma, 1985). Yin (2003) identifies six sources of qualitative evidence in case research: documentation, archival records, interviews, direct observation; participant observation and physical artefacts. Yin (1989) also suggested that the more all of these techniques are used in the same study, the stronger the case study evidence will be.

In this research, the interview formed the main data collection method for the focused study while focus group approach formed the preliminary inquiry methods. Physical artefacts were collected to further enhance the validity of evidence. Documentation and archival records were also investigated to enrich the data collected.

3.5.1 Interview

The most important sources of case study information are interviews (Yin, 1994). According to Yin, the strength of an interview is that it focuses directly on the case study topic and provides perceived causal inferences. Meanwhile, Burgess (1982) perceived interviews as giving the opportunity for the researcher to probe deeply to uncover new clues, to open up new dimensions of a problem

and to secure vivid, accurate inclusive accounts that are based on personal experience.

As this research deals with dimensions that are not easily measured or observed, interviews are preferred to the survey method, thus agreeing with the views of Patton (1990), that 'the fact of the matter is that we cannot observe everything; feelings, thoughts and intentions; behaviours that took place at some previous point in time; situations that preclude the presence of an observer; how people have organised the world and the meanings they attached to what goes on in the world and we have to ask people questions about those things. Thus, the purpose of interviewing is to allow us to enter into the other person's perspective. Qualitative interviewing begins with the assumption that the perspective of others is meaningful, knowable and able to be made explicit.'

Oppenheim (2003) described 2 types of interviews. These are *exploratory interviews*, which is a depth interviews, or free style interviews (including group interviews) and *standardised interviews*, such as used for example in public opinion polls, market research and government surveys. An exploratory interview appears similar in some respect to an ordinary conversation, though it is not.

Standardised interview carries the meaning of making the question mean the same for each respondent even if this should require somewhat greater flexibility in the role of the interviewer. The purpose of the exploratory interview is essentially heuristic: to develop ideas and research hypotheses rather than to gather facts and statistics. It is concerned with trying to understand how ordinary people think and feel about the topics of concern to research.

According to Silverman (2003), there are 3 versions of interview data such as shown in Table 3.1.

Table 3.1 Versions of interviews by Silverman (2000).

	Status of Data	Methodology
Positivism	Facts about behaviour and attitudes	Random samples, Standard questions
Emotionalism	Authentic experiences	Unstructured, open-ended interviews
Constructionism	Mutually constructed	Any interview treated as a topic

Silverman further pointed out that *positivism* give access to 'facts' about the world. Primary issue is to generate data, which are valid and reliable independently of the research setting. *Emotionalism* interviews are viewed as experiencing subjects who actively construct their social world. The primary issue is to generate data which give an authentic insight into people's experiences. The main way to achieve this are unstructured, open-ended interviews usually based upon prior, in depth participant observation. *Constructionism* is where interviewers and interviewees are always engaged in constructing meaning. How meaning is mutually constructed becomes the researchers' topic.

In emotionalism interview, the concern is eliciting authentic accounts of subjective experience. To do so, emotionalists believe that interviewers should try to 'formulate questions and provide an atmosphere conducive to open and undistorted communication (Silverman *via* Holstein & Gubrium, 1997).

According to Silverman, the key is to obtain rapport with respondents and to avoid manipulating them. Whilst positivist regard departure from an interview schedule as a possible source of bias, emotionalists encourage it, as said by Schreiberb, 1996 (*via* Silverman, 2003), "There were merit in hearing the understandings of the people they were at that time."

In this research, in depth semi-structured exploratory interviews were used as the key instrument for collecting evidence, whilst employing the unstructured emotional method where appropriate to gather more essence in the attitude of the editors. Observations on body language were also noted. All interviews were conducted face-to-face. All interviews were conducted in the

Malay language which is later translated into the English language for the purpose of analysis. Each interview was about one hour long.

Consent from the interviewees was first obtained, before all interviews were tape-recorded. This helped released the researcher from being too occupied writing the notes during the interview so that the researcher could concentrate on the issues discussed, such as pointed out by Lofland (1970), which suggested on tape recording an interview.

Tape recording also helps to ensure that the information or evidence obtained during the interviews is stored in its original form for future use and verification. According to Yin (1994), tape recording 'provides a more accurate rendition of any interview than any other method.' Tape recording is also important for this study as the researcher used actual quotations (translated) for analyzing and interpreting the evidence and presenting the findings. This helps to increase the reliability and validity of the findings and conclusions.

All the interview tapes were transcribed into Microsoft Word documents and transferred to QSR NVivo software for analysis. The use of this software is further described in the following chapter.

The interview questions consisted of a combination of open-ended, semi-structured and unstructured questions. The open-ended questions were used primarily for exploratory purposes such as when discussing the issues and problems faced by the interviewees concerning e-transformation in the editorial phase, and their ideas of an ideal system in an e-transformed environment. The semi-structured questions were used mainly to obtain responses that could describe and explain in depth the dimensions and constructs developed earlier in the research theory. The interview questions were developed based on the literature review and the framework used for the research.

Standardised interview questions were also prepared and used with the purpose of minimising the researcher's effects by asking the same questions to each different interviewee and in different times, to reduce the researchers' judgment during the interview, and to make data analysis easier (Patton, 1990).

This also helped researcher to focus on the topic of the interview. However, in certain cases where appropriate, researcher departed from the standardised questions to gather more data on the attitude of the editors.

The interviews cover the following areas:

1. Perception on automation;
2. Standards applied in the work process;
2. Architecture of the system in relations to ease of use and friendliness;
3. Integration that occurs throughout the organizations;
4. Linkages of processes and resources;
5. Substitution within the organization;
6. Issues and concerns among the editors;
7. Existing system and future perspectives;
8. Previous experiences in using the SPMP;
9. On Contracts and Contractors;
10. On Management;
11. On Human Factors.

The interview guide used for the interviewees is as attached in Appendix 1. This interview guide was used by the researcher to ensure that all the important issues and dimensions were covered during the interviews as well as to increase consistencies between different interviewees.

3.5.2 Sample

According to Hussey & Hussey (1997), a positivistic paradigm often uses large samples whereby results from a representative sample can be taken to be true for the whole population. However, the aim of phenomenological paradigm is to get depth, and it is possible to conduct such research with a sample of one.

3.5.3 Focus Group

Focus group is normally associated with a phenomenological methodology used to gather data relating to the feelings and opinions of a group of people who are involved in a common situation. Participants are stimulated to discuss their opinions, reactions, and feelings about a product, service, and type of situation or concept. Listening to other group members' views' encourages participants to voice their own opinions. The explicit use of the group interaction to produce data and insights that would be less accessible without the interaction found in a group (Morgan, 1988 *via* Hussey & Hussey 1997) provides the researcher with rich data.

Procedures on forming and conducting the focus group as suggested by Hussey & Hussey (1997) (Figure 3.1) was followed. A relaxed atmosphere was created and conversations were recorded in a tape recorder as evidence.

1. Invite a group of people whom you consider have sufficient experiences in common on the topic to meet at a neutral location;
2. Introduce the group members and discuss the purpose of the study and what will happen in the focus group;
3. Start the session with a broad open question;
4. Allow the group to discuss the topics among themselves, but intervene to ensure that all participants have an opportunity to contribute;
5. Used a prepared list of topics and intervene to ensure that all topics are covered; and
6. Record the proceedings.

Figure 3.1 Procedure for forming a focus group (*from* Hussey & Hussey, 1997)

3.5.4 Selection of Interviewees

This research focuses on the editorial phase and almost all the interviewees including those involved in the focus group are editors in the Company, a few are chief editor in their department and one interviewee is the key person in charge of implementing the system used by the editors. The criteria for selecting the interviewees include: editing experience of more than 2 years in the

publishing department; familiarity of the existing standard and system available; familiarity of the editorial process in the department, responsible editors from the department and willingness to participate in the research. The list of the interviewees who participated in the research is withheld for the purpose of anonymity in respect to the requests made by the editors.

3.5.5 Documentation and Archival Records

Documents can be letters, memoranda, agendas, administrative documents, newspaper articles or any document that is germane to the investigation (Paré, 2004). Yin (1993) describes archival documents as service documents, organisational records, list of names, survey data and other such records. According to Yin, documentation as case study evidence is stable, that it could be viewed repeatedly and not created as a result of the case study. Furthermore, it contains exact names, references, and details of an event. In terms of coverage, it has a broad coverage, which covers long span of time, many events and many settings. Archival records also have the same criteria as documentation evidence, and are very precise and quantitative. According to Bryman (2000), who called it archival information, this type of data includes historical documents, contemporary records and existing statistics, which can be handled qualitatively or quantitatively. Bryman further noted that the collection and examination of documents are an integral element in qualitative research, which can fulfil a number of functions for the qualitative researcher by providing information on issues that cannot be readily available through other methods; check the validity of information deriving from other methods and contribute a different level of analysis from other methods.

In this research an archival record spanning two years of book publication, which consists of 41 titles (January 2002 - December 2003), comprising 462 documents were investigated to capture data on process, timeliness, speed and velocity, which are the criteria used to measure productivity in any business process redesign project. Other documentation such as speeches by top-level management team and ministers relating to the company' plans and policies were also investigated. Other documents

investigated to support the validity of the evidence includes system and production manuals, house styles, 70 administrative forms and other documents deemed important to the study.

3.5.6 Physical Artefacts

Physical artefacts can be tools, instruments, computer outputs, emails or some other physical evidence that may be collected during the study as part of a field visit. The perspectives of the researcher can be broadened as a result of the discovery (Pare, 2004). In this research, 132 edited texts were collected from 33 editors under study in the company. These texts were edited by the editors in a time frame recorded by researcher. Each editor took between 1 to 2 hours to complete the whole task of editing two different kinds of texts in two different situations. Some of these editors were later involved in the interviewing process since a few of the open ended questions asked were related to their experience in editing these texts. These texts were later used to corroborate qualitative evidence about issues in the editorial phase.

The *Gaya Dewan*, the book on the company's house style is thoroughly investigated and referenced in this method. It is a guideline for editors in the publication of works. In this research, the researcher studied the edited works of editors, done manually and electronically. 2 different set of texts were given to 33 editors. Each set contained a printed text to be edited on paper and the other to be edited on the screen. For the first set, the manual editing on paper was conducted, followed by the second one on the screen. For the second texts, the reverse was performed.

3.6 Data Analysis Methods

Case study tends to produce large amounts of data that are not readily amenable to mechanical manipulation, analysis and data reduction (Yin, 1993). Therefore, the basic goal of qualitative data analysis is understanding, i.e. the search for coherence and order (Kaplan & Maxwell, 1994). In this research, several methods were employed to transform these data into meaningful understanding and description of the phenomena under study.

Patton (1990) described six options of initial analysis of observational data, which are:

1. *Chronology*- describes what was observed chronologically, over time, to tell the story form beginning to end;
2. *Key events* – present the data by critical incidents or major events, not necessarily in order of occurrence but in order of importance;
3. *Various settings* – describe various places, sites, settings or locations;
4. *People* – if individuals or groups are the primary unit of analysis;
5. *Processes* – The data may be organised to describe important process;
6. *Issues* – The observation may be pulled together to illuminate key issues, often the equivalent of the primary evaluation questions.

With regards to the objective of the research of exploring and understanding the issues in e-transformation, Option 6, *Issues* is adopted and deemed relevant.

Crabtree & Miller (1992) described 4 main approaches to qualitative analysis such as shown in the Table 3.2, extracted from Crabtree & Miller (1992):

Table 3.2 Approaches to qualitative analysis (*from* Crabtree & Miller, 1992).

	Approaches	Descriptions
1.	Quasi-statistical Approaches	¤ Use word or phrase frequencies and inter-correlations as key methods of determining the relative importance of terms and concepts. ¤ Typified by *content analysis*.
2.	Template Approaches	¤ Key codes are determined either on an a priori basis or from an initial read of data. ¤ These codes then serve as a template for data analysis. ¤ Text segments which are empirical evidence for template categories are identified. ¤ Typified by matrix analysis, where descriptive summaries of the text segments are supplemented by matrices, network maps, flow charts and diagrams.
3.	Editing Approaches	¤ More interpretive and flexible than the above. ¤ No (or few) priori codes. ¤ Codes are based on the researcher's interpretation of the meanings or patterns in the texts. ¤ Typified by *grounded theory* approaches.
4.	Immersion Approaches	¤ Least structured and most interpretive, emphasising researcher insight, intuition and creativity. ¤ Methods are fluid and not systematised. ¤ Close to literary/artistic interpretation and connoisseurship (i.e. calling for expert knowledge and targeted at a similarly skilled audience). ¤ Difficult to reconcile with the scientific approach.

Based on the data collected, author identified template approaches as the method of analysing the data. In template approaches, an initial template was developed from a few predefined codes. According to King (*via* Symon & Cassell, 1999), template analysis is often referred to by other terms such as codebook analysis or thematic coding or looking for themes in the texts analysed. This approach is seen by King as occupying a position between content analysis where codes are all predetermined and their distribution is analysed statistically, and grounded theory, where there is no *a priori* definition of codes. King further pointed out that this technique is more flexible with fewer specified procedures (unlike grounded theory), permitting researchers to tailor it to

match their own requirements. According to Symon & Cassell (1999), unlike the grounded theory approach, template analysis normally starts with at least a few pre-defined codes which help guide analysis. The interview topic guide was used for the construction of this initial template.

Revision of template and insertion of new codes and deletion of inappropriate codes occurred several times in the process. Narrowly defined codes were also changed to position it in the most appropriate level. The final template was developed after the transcript has been reviewed several times.

3.6.1 Coding and Sorting

Interview transcripts, focus groups and documentation data were analysed in depth and tabularised and categorised according to the themes emerged and developed from study. Coding involves sorting the data into concepts, time, and categories, as described by King *et al*. (1987) and Bailey *et al*. (1994). NVivo 7 was used to categorise, code and analyse the data and this help to minimise the painstaking work if done manually.

3.7 Overcoming Bias

In this research, especially with the application of open ended interview, the introduction of bias is unavoidable. A researcher cannot separate herself from the topic/people that is being studied since knowledge is created in the interaction between the researcher and the researched. It involves behaving as neutrally as possible, being aware of the power of the researcher in the dynamics of relationship, getting the participant to tell their perspectives without requiring an approval or confirmation from the researcher, asking questions that do not steer the participants in a way that might appear to endorse a particular response. It involves modeling interviews after conversations between two trusted parties. To prevent the research from being a narrative of one's own opinion, recorded details of the interviews are kept and the subjectivity was admitted.

In codification of concepts derived from the data, the original wording from the data was used during the coding process, and every concept was clearly

referenced to established authenticity. Furthermore method of triangulation used in the research increased the internal validity of the study.

Measures have been taken to minimise bias in the collection, and analysis of data. The use of multiple sources of evidence was deliberate so that, to the extent possible, bias from a single source is overcome through evidence obtained from other sources (Yin, 1994). According to Denzin (1970, 1978) the notion of triangulation has become a salient feature of research methodology, while Miles and Huberman (1994) say that "in effect, triangulation is a way to get to the finding in the first place by seeing or hearing multiple instances of it from different sources, by using different methods and by squaring the finding with others it needs to be squared with." As has been made clear, the principle data in this study consists of interview transcripts. However, as has been also noted, other materials has also been collected. The secondary data made possible a comparison between the results of the analysis of the interview data with what the editors views are in other circumstances.

Denzin proposes 4 kinds of triangulation. The first is data triangulation, which has 3 subtypes, namely time, space and person. According to Denzin, data should be collected at a variety of times, in different locations and from a range of persons and collectivities. The second is investigator triangulation, which is using multiple rather than single observers of the same subject. The third type, theory triangulation, consists of using more than one approach to generate categories of analysis. The fourth is methodological triangulation, and has 2 subtypes: within method, by using a combination of attitude scales, forced choice items and open ended questions and between method triangulation, which is self explanatory.

This research triangulates through qualitative and quantitative research techniques that include content analysis (analysing text and documents), interviews, investigation of physical artifacts, and statistical data.

Besides relying upon both secondary and primary sources of information, the study was also based upon various types of different documents and records

prepared by different people, from different backgrounds and, with different interests. Similarly, a cross-section of persons from different backgrounds was also interviewed so as to overcome the elements of bias.

NVivo is particularly helpful in enabling the researcher to check on the context of a piece of data whilst working on it. If there are any concern that for any reason, coding has been inadequate and more or less data should be available on a particular topic, or relevant to a particular quotation, searches can be undertaken which in effect, produce freshly coded text. By this means researcher can continually check that the data selected is being used correctly.

Back up reports have been taken throughout the coding process and stored. Thus, a complete audit trail of the coding process exists which would enable any future researcher to work with the data in the same way as the researcher and produce the same results.

3.8 Research Quality

A number of authors have suggested various criteria which can be used to evaluate a phenomenological study in its entirety and these can be used to assess the quality of the analysis. Lincoln & Guba (1985) suggested that four criteria should be used:

1. Credibility;
2. Transferability;
3. Dependability;
4. Confirmability.

Credibility demonstrates that research was conducted in such a manner that the subject of the enquiry was correctly identified and described. Since this research is based on a descriptive approach, it is crucial that this is done in its earlier phase, thus ensuring its credibility. According to Hussey & Hussey (1997), credibility can be improved by persistent observation of the subject under study to obtain depth of understanding, by triangulation, and by using different sources and collection methods, which is in fact what is carried out in this study.

Transferability is concerned about whether the findings can be applied to other situation which is sufficiently similar to permit the generalisation. The use of a mixture of extreme case sampling and intensity sampling provides ideal data to ensure transferability. *Dependability* should show that the research process is systematic, rigorous and well documented. *Confirmability* should be used as criterion where the study has described the research process fully and it is possible to assess whether the findings flow from the data. This research is conducted to comply with all four criteria describe by Hussey & Hussey (1997).

3.9 Conclusion

Figure 3.2 summarises the methodology of this research.

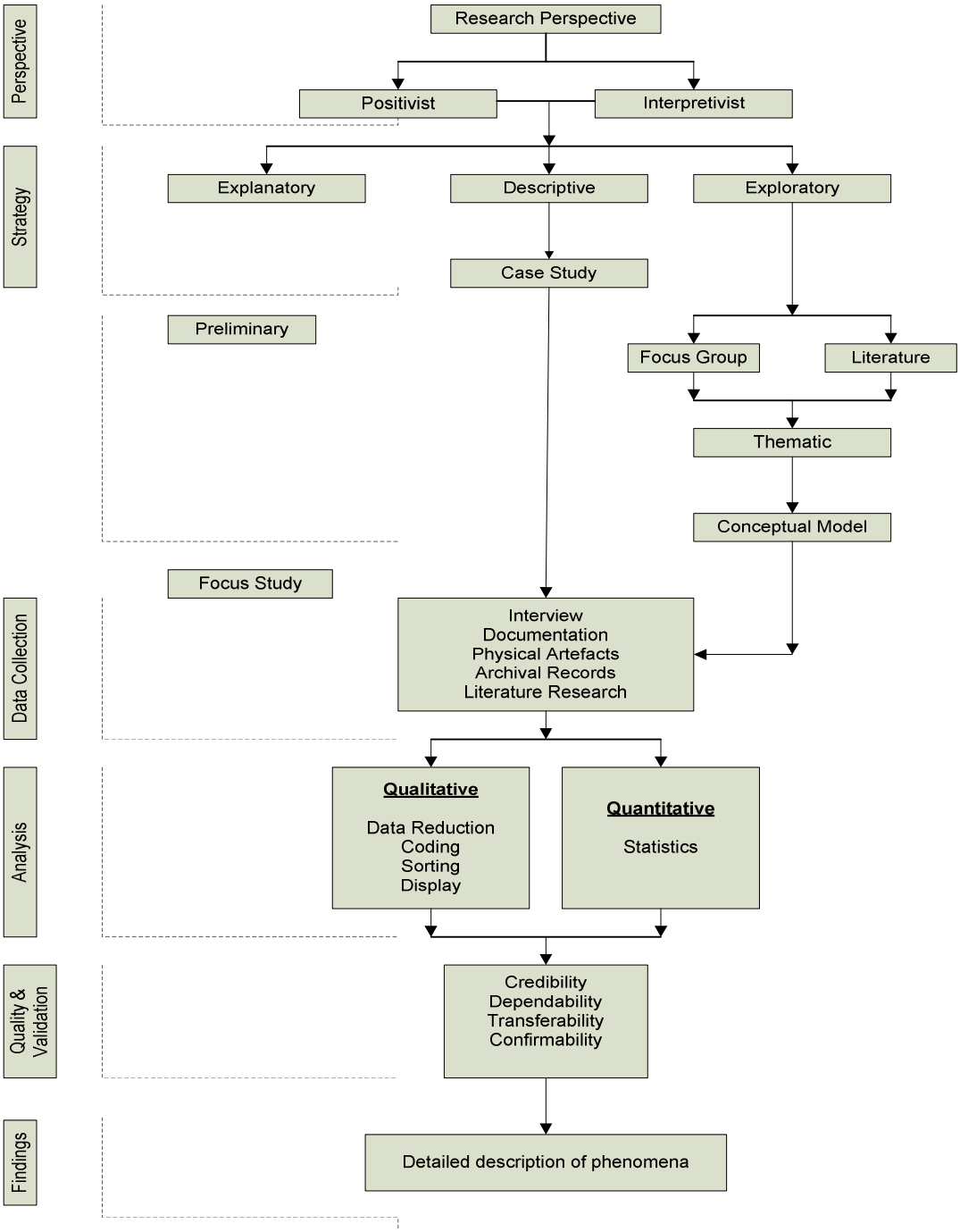


Figure 3.2 Outline of research methodology.

4.0 Preliminary Case Study Evidence

4.1 Introduction

This study begins by developing a theory base on the descriptive approach design, whereby the criteria used to answer research questions on what, who, where, how many and how much would represent the 'theory' of what needs to be described. It will be determined where the description should start and where should it end; what should be included in the description and what might be excluded. The criteria used to answer these questions would represent the 'theory' of what needs to be described. The term *theory* covers more than causal theories. It means the design of research steps according to some relationship to the literature, policy issues or other substantive source.

4.2 Background Investigation

The aim of conducting an initial investigation was to gather adequate prior knowledge about the subject area under study as suggested by Robson (1993) for any descriptive study and to determine the boundaries of the research for the focus study. In the previous chapter, 3 units of analysis were identified:

1. The infrastructure/architecture;
2. The editorial phase;
3. The process.

4.2.1 The Infrastructure

What infrastructure is available in the organisation in relation to e-transformation and what are the issues in e-transformation that are related to the infrastructure/s. These include the organisation structure, the systems structure and the process structure.

4.2.1.1 The KaryaNet

KaryaNet is a portal for online publishing. Its main activity is the development of communities which consist of writers, reviewers, editors, graphic artists, students and users and online publishers as well as the realisation of the e-

reference, e-mentor, e-publishing, e-bookstore and e-commerce programmes. KaryaNet's final product is the publication of a variety of reading and reference materials in the Malay language which are accessible *via* the internet. The Karyanet was envisioned to be able to:

i) Reactivate the production of higher learning books and references in as many field possible;

ii) Increase the number of high quality reading materials in informative and creative forms for all levels of society;

iii) As a centre of reference;

iv) Provide a network of integrated community to rapidly promote the production and publication of a piece of work;

v) Become the catalyst in promoting activities involving the Malay language, literature and publishing and;

vi) Become the infrastructure for online publication and e-commerce activities.

4.2.1.2 The SPMP

The Company has its own web site for the public and 4 other main structures individually clustered and does not integrate them (Figure 6.13, left). The SPMP is a database system to store data on publication works and to keep track of the progress of manuscripts, limited to the Department of Publishing. SPEE, is a database system for entries of encyclopaedias. The finance structure provides financial forms that could be accessed and filled in online but need to be printed out and sent back by hand. The language structure has its own system and other departments and divisions have since developed their own heterogeneous structure. A detailed study of SPMP is presented in the following chapter.

4.2.1.3 The administrative structure

The administrative e-structure has not been fully developed and the Company is still using the conventional method of conducting administrative activities. The issues in the administrative structure will be studied and discussed further in the following chapters.

4.2.2 The Editorial Phase

What are the activities of this phase and who are involved and what are the issues faced by this phase to e-transform, will be discussed further. The background of this phase has been discussed in the chapter on Introduction and will be revisited as the study progresses.

4.2.3 The Organisation

Discussion involves how the Company is organised and what the issues are related to the organisation that has became an issue in e-transformation. Chapter 1 gives a detailed introduction to the organisation under study and this will be revisited as the study progresses.

4.3 Literature Review Approach

A literature review approach, which is supported by a study based on the multimedia and implementation system development, was conducted and later reviewed to determine the theory of what needs to be described for the study. The literature review approach has helped determined the topic of the focus group interview.

4.4 Focus Group Approach

The strategy of using the focus group approach has been discussed in Chapter 3 on Methodology.

4.5 Research Strategy

4.5.1 Methods of Analysis

The units of analysis were determined earlier in the study to focus the research and also to determine whether ample background knowledge is available to conduct a descriptive research on this area. It was later decided that the study should follow the predetermined strategy of descriptive research.

Once the background information has been gathered and literature reviewed, four open questions were determined to further explore and understand the issues under investigation. The four questions developed were:

1. Automation of the editorial phase
2. The SPMP
3. Work related, editing
4. The editors and affected people

It was felt that the most appropriate form of data collection for the preliminary study would be qualitative since it will be based mostly on the recollection, perception and views of the editors. The analysis strategy taken was by way of thematic data analysis to analyse the interview data. The focus group took about 1 hour with 4 participants, all editors, including 2 senior editors. For the purpose of confidentiality, these participants were named in one single alphabet, (A, B, C, and D) for the purpose of analysis.

4.5.2 Key Themes

33 key themes were identified in the focus group interview as shown in Figure 4.1. These themes were identified by their recurrence across the interviews. The themes were grouped in accordance with the frequency that they were referred to across the interview. The black boxes represent the most common primary themes and the white segments represent the secondary themes. The themes with the highest frequency are Dissatisfaction (49), Diffidence (30), Contract (23), Human (20), Workload (15), Expertise (14), Responsibilities (13), Standard (10), SPMP (9), Distrustful (9), Bad Experience (8), Work Procedure (8), Quality (8) and Authority (8). The significance of these emerging themes are that they emerged not as a result of interviewer prompting but as part of an inductive process of theory building, as the interview was undirected and open.

The themes in the white segments were less frequently mentioned in the interview. However, at this stage, all potential areas of interest were considered as an emerging theme. The less dominant themes were later discarded and the more dominant ones were taken forward for theory development.

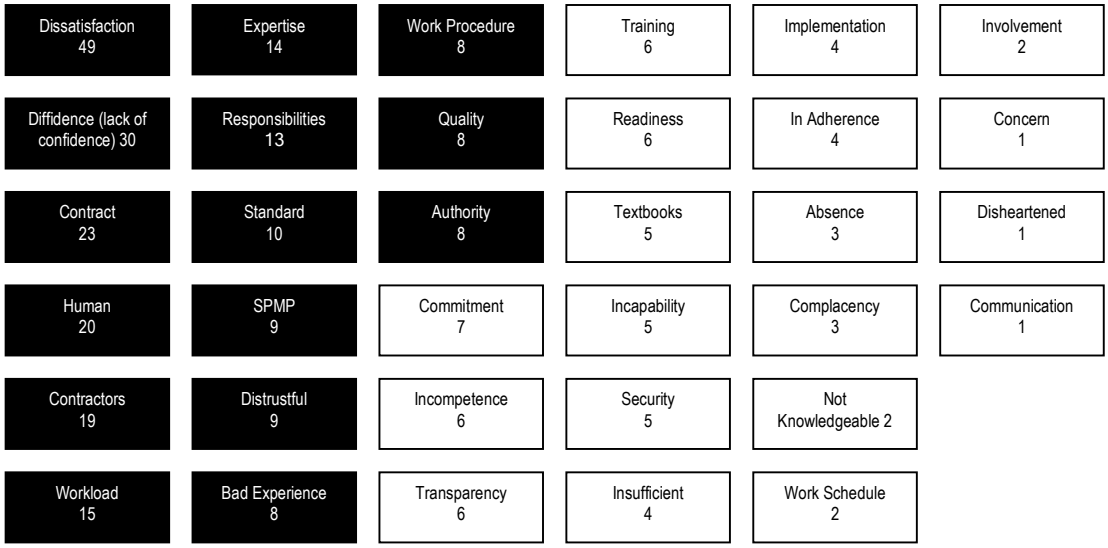


Figure 4.1 Themes gathered from the group interview.

4.5.3 Grouping of Themes

The next step was to understand the primary and some of the secondary themes. This involves grouping of the themes into headings that could be described such as shown in Table 4.1

Table 4.1 Grouping of themes into categories.

Grouping	Themes
The issues are	▪ Human factors ▪ Textbooks ▪ Lack of confidence ▪ Distrustful ▪ Expertise ▪ Insufficient (information)
How well did the editors accepted previous system?	▪ Bad Experience ▪ Dissatisfaction ▪ SPMP
What are the perceptions of the editors on automation?	▪ Dissatisfaction ▪ SPMP ▪ Contract
Implications on knowledge intensive products	▪ Standard ▪ Quality
Implications on the editorial processes	▪ Work procedure ▪ Work schedule ▪ Communication
Implication on editors	▪ Responsibilities ▪ Workload ▪ Commitment ▪ Training
How should future systems work	▪ Transparency ▪ Human ▪ Contractors ▪ Workload ▪ Authority ▪ Standard

From this grouping of themes, it is possible to develop a framework to better understand transformation issues in the editorial phase.

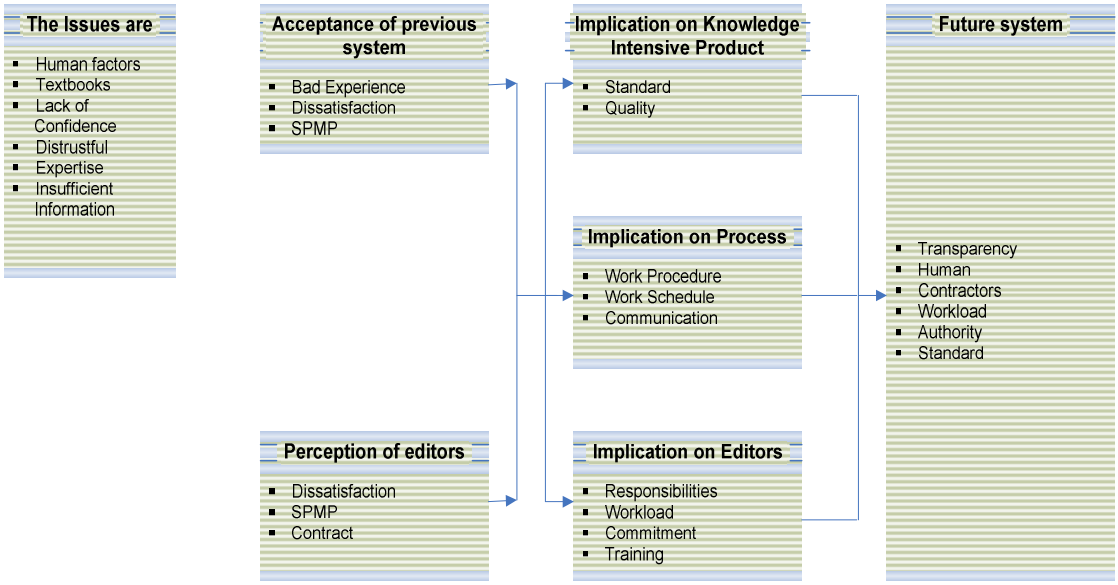


Figure 4.2 High level understanding of e-transformation.

4.5.4 Discussion of Key Themes

The grouping of the themes was based on deliverables expected from the study earlier on (Research Framework, Figure 1.3) which are related to the objectives of the research and the statements were modified for clarification and discussion purposes. These statements will be outlined and discussed below with supporting text from the interview and observation.

> *The main issues in the transformation are human factors, lack of confidence in the system and management, distrustful of the management intentions, low expertise in certain areas of transformation, insufficient information regarding the transformation and the system and the most problematic area is the textbook production.*

The initial topic of the group interview was on automation. This relates to previous experience using available system in the Company, and future anticipation of automation. The findings illustrate human factors as one of the major issues in transformation. As stated by one of the candidates, "*We could*

change the human behaviour but we could do nothing with other people's attitudes." (1.060; App. 2).

The lack of confidence in the system and management is also another key issue, such as reflected by the candidates on the previous system, "*What do we want to automate anyway? Our experience with SPMP goes nowhere … (everybody laughed)* (1.022; App. 2).", and on the management, "*It is not that I do not fully agree to it. From my experience staying in DBP for so long, whatever we undertake I do not see that thing operational. Am I not correct?*" (1.025; App. 2).

The interview also found that the editors are distrustful of the management intentions on implementing any project such as quoted by the interview candidate, "*We do not have it even with BBT right? I think that is not a mistake, it was intentional.*" (1.169; App. 2). This statement is referring to a contract signed by the Company and the contractor undertaking part of the automation process.

No expertise in certain areas of transformation is another key issue in the transformation. This includes expertise among the management, in IT and system development. Quotes from the candidate reflect this issue on the IT side. "*Even the information technology division, people there are not knowledgeable. You compare to other organisations. It is very different.*" (1.225; App. 2), and another quote referring to the management side, "*So you will never know what is in the contract. But we assumed nobody thought about reviewing and retracting.*" (1.167; App. 2).

The Company does not relay sufficient information regarding any planning on transformation which is considered by the editors as one of the key issues in transformation. The quote that reflects this is, "*We have to know what the management meant by automation.*" (1.011; App. 2).

The textbook production was considered the most problematic area to undergo transformation due to its diverse nature of publishing and the political involvement as well as the external factors associated with it. This is as quoted by the candidate, "*In our work to publish the textbooks it involved many*

workshops, moving from one hotel to another, so when is the time to automate?" (1.039; App. 2), by another candidate, "*Right now, like us, we are always excluded from them. We are talking about textbooks. Somehow, we could not fit into that system. Both ways, it could not accommodate all our requirements and we could not fit into the system.*" (1.032; App. 2).

Editors have bad experience and dissatisfied with the implementation of SPMP.

SPMP was the first semi automated system implemented at the Company and the experience of using it is as describe by this candidate, **"***Our experience with SPMP goes nowhere….everybody laughed. The system does not work at all. The system is not friendly. That is supposed to be half way already*." (1.022, 1.023; App. 2).

Another candidate quoted, "*We could only fit into the system at the end of our cycle, when the book is completed and we could report it.*" (1.035, App. 2). A candidate commented on her dissatisfaction towards the management, "*So right now, whatever we want to do, even for this automation or whatever, you will see, that the ones who will be thinking about it, who will be designing it, this whole thing will be us, you just have to present it to them*." (1.208; App. 2). "*Maybe if they can see to that they can accommodate to all your work system. Because you are talking about DBP, a system for everybody in DBP, so you cannot make us an exception. So far now what we did with that SPMP system, we could not fit into that so we are, they neglect us…laughed….*" (1.034; App. 2).

Editors were dissatisfied by the way the Company addresses the issues on SPMP and contracts signed.

The finding from the interview revealed that the editors were dissatisfied by the way the Company addresses the issues on SPMP and the formulation of contracts that leads to the inability of the Company to implement fully

automated e-publishing system. This is reveal by the following quotes: "*So right now, whatever we want to do, even for this automation or whatever, you will see, that the ones who will be thinking about it, who will be designing it, this whole thing will be us, you just have to present it to them*." (1.208; App. 2); "*No that is the agreement with Dawama, when it was privatised, that comes with the job*." (1.147; App. 2); "*If it were automation, it would have been better if all were under the organisation*." (1.149; App. 2); "*They will have to learn before they start implementing anything*." (1.213; App. 2).

The implications on knowledge intensive products are reflected on the standard and quality of the product.

The interview revealed that the implication on knowledge intensive products are as reflected on the standard and quality of the product, as quoted by the candidate, "*Same, (referring to the standard applied in conventional publishing) we do not go by certain numbers; we gauge that person by how many pages a day. And our work procedures, we do not have a standard arrangement time wise*." (1.080; App. 2). As for the quality, a candidate is quoted saying, "*If the quality is not good and they fail to meet the deadline of publication, they fail*." (1.075; App. 2).

The implications on the editorial processes are reflected by the work procedure, work schedule and communication in the flow.

Several implications were foreseen by the editors in undergoing transformation, such as stated by the candidate that reflects the work procedure and work schedule, "*We are so tight with the schedule of BBT so we made our schedule to fit that. Each editor will have their schedule to fit into that one and we could see their performance from the deadline they met*." (1.073; App. 2). And reflecting on the communication implication with an external contractor, a candidate said, "*There's no chance, no chance….*" (1.155; App. 2), referring to the impossibility of having a good working communication within that context of their work.

The implication on editors are reflected in their responsibilities, workload, commitment and training.

The interview revealed that the implication on editors are as reflected in their responsibilities and workload such as quoted by the candidate, "*But as it is now, this people's attitudes are you know, like, ooo … this is all the responsibilities of the editor, so do you see, the whole burden falls on the editor so that makes the editor in this textbooks division over burdened with responsibilities. And then we are expected to do so many things.*" (1.094; App. 2). A candidate quoted this regarding training, "*Yes, if we want to automate, we have to master the system too. So when you say automation, editing should already be done online, and if you edit on an already set screen, isn't that possible?*" (1.152; App. 2). Referring to commitment of others, a candidate quoted this, "*We are the ones who are running everything to fasten things up. We keep telling ourselves, be quick, we could still do it before 4 p.m. …*" (1.122; App. 2).

The future systems should take into consideration aspects of transparency, human factors, contractors, workload and authority.

The study found that editors are very concerned over transparency in the Company, such as quoted by the candidate, "*Why should they keep it such a secret? Such a big secret. Well even if it is confidential, those who are involved should be given the right to know.*" (1.177; App. 2). Another quote that is found crucial from the interview is on human factors, as quoted by this candidate, "*Agree, agree, agree (referring to human attitude). I have been here for so many years, that part we have not been successful. Laughed heartily*." (1.062; App. 2). As for consideration on contractors and workload, this is what a candidate said, "*That includes monitoring the companies, not only monitoring Dawama.*" (1.088; App. 2). "*By right, it is Dawama's job to monitor other companies. But right now, we have to monitor Dawama too. Now they have a committee on these companies, and we have to monitor these companies too, we need to be there.*" (1.089, 1.090; App. 2). As for authority matter, a candidate

quoted, "*So in anticipation of all those things (referring to authority), we cannot say we cannot have that kind of thing you now, yes we can, so if we want to be fully automated, we need to have in mind all those things, the stop gap to ensure no hanky-panky….*" (1.192; App. 2).

4.6 Focusing of Themes

From the preliminary study, 34 themes were gathered which are potential areas to study further such as illustrated in Figure 4.1. It was decided that the scope of the research should focus on the 15 most important themes illustrated in this Figure but not limited to these themes. Other emerging themes from the focus study will also be considered, if it shows any relation to the themes elicited in the preliminary study. The next stage of the study will be an attempt to fully understand the issues and implications better. The focus study will take into consideration literature surrounding the current themes, data gathered from the preliminary and focus studies and researcher's experience and perspective in the industry. Following are the discussion on the grouped themes which will determine the boundaries of the focus study.

4.6.1 *The Main Issues in the Transformation are Human Factors, Lack of Confidence in the System and Management, Distrustful of the Management Intentions, No Expertise in Certain Areas of Transformation, Insufficient Information Regarding the Transformation and the System and the Most Problematic Area is the Textbook Production*

4.6.1.1 Human factors

Literature has pointed out that one of the issues of e-transformation is the human factor in the form of transformation of the mindset of the employees. Pursuant to this, there is a need to identify the attitudes of the employees related to this transformation, how they perceived it, what were their experiences and what will their future perception be. By knowing and understanding these issues, future systems could be tailored to their requirement or other underlying issues could be unfolded to understand the relationship between attitudes and transformation. However, only the perception of the editors will be studied in following chapters.

4.6.1.2 Lack of confidence in the system and the management; distrustful of the management intentions, no expertise in certain areas of transformation, insufficient information regarding the transformation and the system

This issue is the most quoted in the interview. Lack of confidence in the system will require an elaborate study into good practices and detailed steps towards the BPR efforts and the lack of confidence in the management team will have to be reviewed from the perspective of the government sector, while taking into consideration input from the private sectors as well. The scope of the former area of study will be from the perspective of the publishing industry.

4.6.1.3 Transformation of the Textbook Division

As this division has quite a diverse standard from the rest of the publishing wing (as described in page 104), it was decided to consider it from a different perspective. Furthermore, this study focus on the whole of the editorial phase, therefore it is impossible to base the study only from the perspective of this division, which will result in an isolated though detailed findings. However, this division will still be considered in the focus study because some aspects of the editorial phase are common to this division and other publishing divisions in the Company, such as sharing the same administrative structure and publishing structure.

4.6.2 The Implications on Knowledge Intensive Products are Reflected on the Standard and Quality of the Product

Standard and quality have always been associated with knowledge intensive products such as those involved in the intellectual properties department shown by the production of books or any other reading materials. The findings of the preliminary study has discovered a disturbing phenomenon that some of the employees could not differentiate between standards and quality in reference to this knowledge intensive product. It is decided that the study will first try to understand the two and differentiate them in the context of this research and further discovered the impact of transformation on the two areas.

4.6.3 The Implications on The Editorial Processes are Reflected by the Work Procedure, Work Schedule and Communication in the Flow

The editorial processes is one of the units of analysis of the study, thus it is crucial that this area is studied further, so that in the end it could be tied together in the transformation process as well as promoting a new reliable process or procedures. It is decided to look deeply into the communication area as this will form part of the processes related to the Company's internal and external business. However, the work schedule will not be considered as an important contributing area since the editorial processes will incorporate the existing schedule available and try to make adjustment wherever possible. The editorial processes will take into consideration the administrative phase but will not consider the delivery phase. Though it is important and useful in an electronic deployment, the delivery phase will lead researcher into the areas of e-commerce, customer service, payment system, digital rights management and many others, which will eventually lead to a less narrow focus and larger perspective and data collection, impossible to achieve at this level of study.

4.6.4 Editors have Bad Experience and Dissatisfied with the Implementation of SPMP; Editors were Dissatisfied by the Way the Company Addresses the Issues on SPMP and Contracts Signed; The Implication on Editors are Reflected in Their Responsibilities, Workload, Commitment and Training

This issue will require an analysis into the impact of transformation in the editorial phase. The SPMP system will be scrutinised in depth to discover the flaws of the system leading to the editors' bad experiences and dissatisfaction with it. The analysis will study the system taking into consideration only the focused phase and the government impact on it and further user's experience in a different setting from the textbook division. The issues surrounding the editors will also be studied in depth to discover the impact on their responsibilities, workload, commitment and training.

4.6.5 The Future Systems Should Take into Consideration Aspects of Transparency, Human Factors, Contractors, Workload and Authority

Due to its government controlled nature, it is decided to look into future characteristics of an e-publishing government controlled system, focussing into the areas of transparency, human factors, its relationship with its contractors and the issues on authority with regards to an online deployment. The workload aspect, which is referring to the workload of editors from the preliminary findings, will be considered if applicable in this section.

4.7 Developing the Conceptual Model

The conceptual model was developed from a detailed study on the literature and the combining of the findings from the focus group research, the result of the development of the key findings. It will help to focus the data collection for the next stage of the research. The themes identified from the preliminary study were based on the data gathered at this stage and on the exploratory approach adopted by this study. The themes that emerged were formed into a conceptual model. Current theoretical context in business transformation acknowledge that there are issues that are a hindrance to business transformation, and this impact certain areas, and change aspects and facets of the industry. Strategies are needed to overcome these hindrances and transformed the business or industry. Literature proved that the transformation impacts the organisation, operation and work related areas and these in turn create changes in paradigm, process people and technology. Strategies are also needed to counter these changes to accommodate and enhance the new transformed business. In different industries, different issues, impacts and changes occur and these in turn needed different strategies tailored for each different industry. In the transformation of the publishing industry, there are issues (human, confidence, management, expertise), impacts (the editorial phase) and changes (product, process, editors) and strategies of overcoming these hindrances. Summaries of the literature affected in the study are as shown in Table 4.2 and 4.3. Hence, it is possible to develop the following conceptual model (Figure 4.3, 4.4) to guide the research into the focus study.

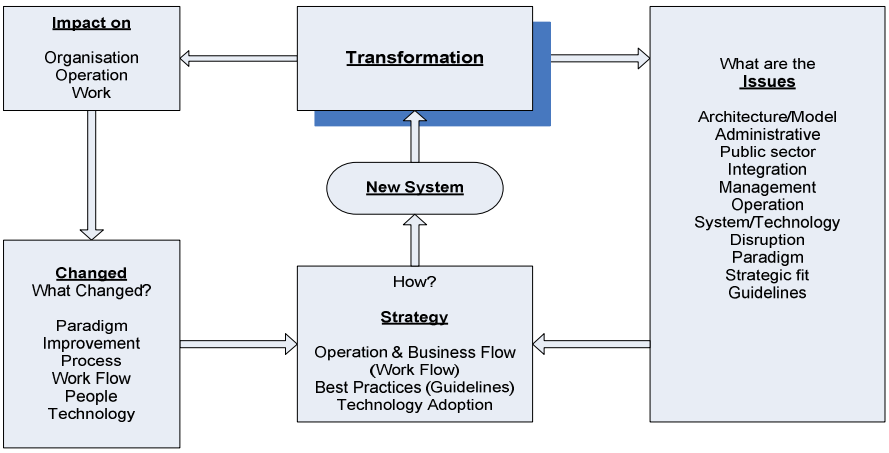


Figure 4.3 The conceptual model.

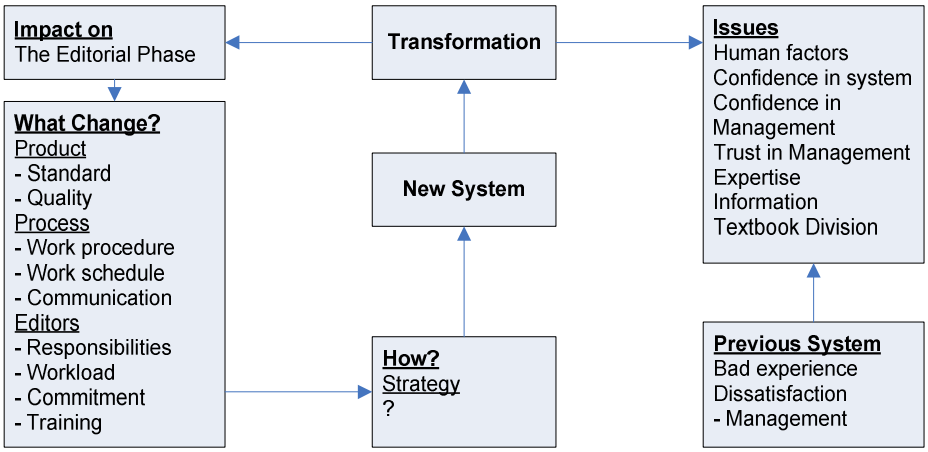


Figure 4.4 The conceptual model for the publishing industry.

Table 4.2 Summary of the impact and changes brought by transformation.

Researcher	Changes	Impact on
Montgomery, 2000	Paradigm shift	All business environment
Davenport *et al.*, 2001	Improvement (efficiency and effectiveness)	Traditional business, communication
Davison *et al.*, 2005	Paradigm shift, business process	Operational processes
Sharma, 2000	Structural and conceptual changes	Organisation
Leem *et al.*, 2003	e-work related innovation processes	Enterprise wide
Wilder, 1999	Transfer of knowledge	Organisation
Hammer & Champy,1993	Business process	Organisation
Guimares & Bond, 1996	Business processes	Organisation
Alavi *et al.*, 1995	Business processes	Organisation
Davenport & Short, 1990	Workflows and processes	Organisation
Braganza & Ward, 2001	People	Organisation
Kathuria *et al.*, 1999	General manufacturing and information technology	Organisation
Venkatraman, 1994	Localised exploitation, Internal integration and business process	Operational excellence
Papows, 1998	Business processes	Communications
Evans, 2000	Business processes	Integrated services, work style

Table 4.3 Summary of the issues in the public sector and publishing industry.

e-Transformation	Conventional Publishing	Electronic Publishing	Editorial Phase	Transformation in the Public Sector
Business operation	Editing technology	E-business	Process structure	BPR in the perspective of the public sectors
Operation management	Deployment issue in BPR	Business model representing fundamental processes	Support system for editors	Regulations, attitudes, policies and practices
Transformation	Strategic networking	Understanding and anticipating changes	Administrative issues	Business process architecture
Impact on decision-making, communication patterns, formal and informal structures, authority and control, power and political systems	Too much inertia	Integrated enterprise	Evolution of scholarship and editorial phase	Implementation
Strategic fit (integration)-reconfiguration of company activities and realignment of entire system	Unstructured content	e-business Implementing	Communication system	Good practices and detailed steps towards BPR efforts
Streamlining internal workflows	Business model	Organisational cultural issues and strategic implications	Underestimation of cost	Incentive structure
Paradigm shift	A new medium	Disruptive innovation, creative disruption, work force disruption	Reengineering the editorial phase	
Management strategy		Publishing processes	Organisational consequences	
		Cost-effective scalability	Editorial guidelines	
		Pricing issues	Quality	
		The FUD factor	Creative work	
			Legal issues	

4.8 Conclusion on Focus Study Propositions

The section on 4.6 has outlined the boundaries of the research thus detailing the areas to be described later in the focus study. In this chapter, a conceptual model was developed to guide further the research. Chapter 5 will introduce the focus study of the research and how the data is collected and analysed.

Chapter 5 Research Findings: Focus Study Evidence

This Chapter covers the focus study findings of the research and is divided into 3 main sections in accordance with the 5 prepositions proposed earlier in the preliminary finding. The high level understanding of e-transformation is revisited (Figure 5.1) as a guidance to focus the thesis.

5.1 Findings from Preliminary Study

5.1.1 Revisiting the High Level Understanding of E-Transformation

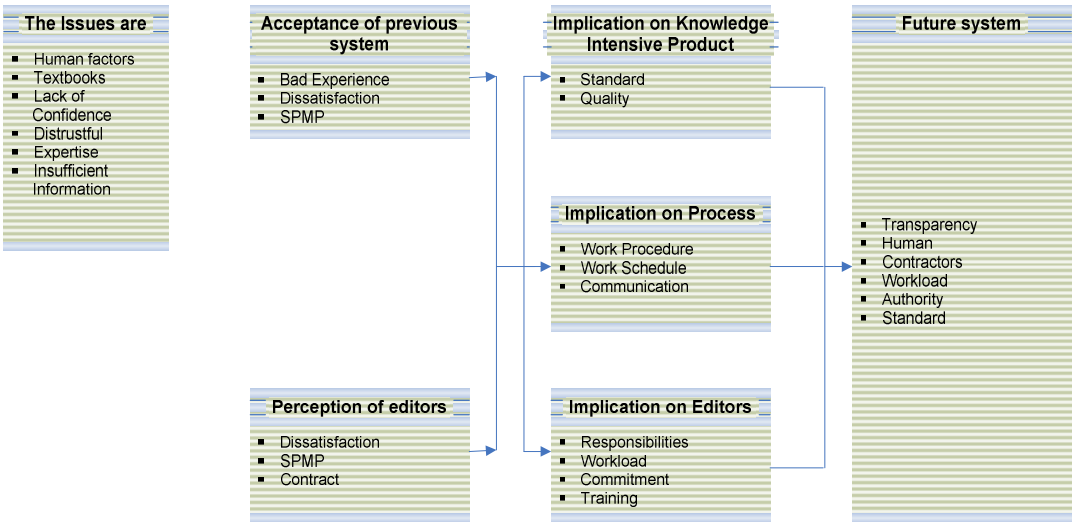


Figure 5.1 Revisiting the high level understanding of e-transformation.

1. *The main issues in the transformation are human factors, diffidence (lack of confidence) in the system and management, distrustful of the management intentions, low expertise in certain areas of transformation, insufficient information regarding the transformation and the system and the most problematic area is the textbook production.*

2. *The implications on knowledge intensive products are reflected in the standard and quality of the product.*

3. *The implications on the editorial processes are reflected by the work procedure, work schedule and communication in the flow.*

4. *Editors have bad experience of SPMP; Editors were dissatisfied with the implementation, by the way the Company addresses the issues on SPMP and contracts signed; The implication on editors are reflected in their responsibilities, workload, commitment and training.*

5. *The future systems should take into consideration aspects of transparency, human factors, contractors, workload and authority.*

5.2 Focus Study Research Propositions

1. To further explore and understand the HITEC issues (human factors, information, trust, expertise and diffidence) in e-transformation and how or what affect does the issues brought towards the editorial phase.

2. To explore and understand the implications of e-transformation on the product (standard, quality), process (work procedure, work schedule, communication) and the editors (responsibilities, workload, commitment, training) in the editorial phase.

3. To explore and understand system implementation issues (editor's experience with SPMP, management) and future system (transparency, human factors, contractors, workload, authority).

5.3 Focus Group Interview

5.3.1 Interviewees

The study involved 18 interviewees; all are editors ranging from 2 years experience in editorial ship to the senior editors and decision makers, once editors themselves, who sit in the board of directors meeting and who are still doing their editorial work. These editors came from a variety of background, and work in different divisions under the Department of Publishing. However, they all share one common important aspect of the editorial phase. They are editors who edit manuscripts and manage their publications.

The selection of interviewees was first conducted by applying to the Director of Publishing via an official letter of intention to conduct a study on the editorial phase in the Publishing Department. The letter by the researcher requested full cooperation from the editors and staff of the department to assist in any way possible to conduct the study. The second official letter, now addressed to the Head of Human Resources Development, researcher requested the full list and details of all editors in DBP. These details include full name, gender, address, date of birth, date appointed to the present post of editor, level of occupation and educational background. Prior to that researcher signed a confidentiality form requiring her to abide by the confidentiality standard of

DBP, so as not to disclose the content of the document and details of the editors to any unauthorised parties and the data is not to be used for other purposes than the stated intention of the study.

From the document, researcher ruled out all editors who has less than 2 years experience, since the study requires familiarisation in house styles, language and techniques. The decision not to include the editors who are working under the Textbook Division has been mentioned in Chapter 4. Divisions and Departments other than the Publishing Department were excluded because other Departments are not involved in the whole of the publishing process even though there are editors working in these departments. Surprisingly, only about 1/3 of all editors in DBP are stationed under the Department of Publishing. Gender is not considered, a random choice approach was taken due to the availability of editors and the time constraint. This interview and the focus group interview were conducted within 90 days. Researcher went from one editor to another editor and asked first hand whether they would willingly be interviewed for the study after they have been introduced to what the study is about and how they could contribute. Researcher also gave the freedom for the interviewees to choose the place where they would like to be interviewed and all except one interviewee wanted it to be done at their own workstation (desk or office). The other interviewee, a very busy Head of Division, requested to be interviewed in a meeting room and adjourned his meeting for one hour to enable him to participate in the study.

At the beginning of the interview, researcher sought permission from the interviewees to record the interview and all participants consented to this procedure. This enables the researcher to concentrate on the responses of the interviewee instead of trying to record them in writing. Together with recorded interview, this helps maximise the accuracy in reporting the interviews.

Being in the government, researcher realised that people are not so willing to talk about their dissatisfaction or concern in their own organisation, for fear of repression or other negative effects that they think will incur to them if they do so. Therefore, researcher also assured the interviewees of their

anonymity and the confidentiality of their participation by guaranteeing that they would not be identifiable in any report that will be produced. Researcher also agreed that she would stop the interview if the interviewee requires so at any time. After the interviewees were clear on these issues, the researcher launched each session with the first question and then continued to ask the other questions in sequence (Appendix 1). The researcher adopted the emotional interview method (unstructured) whereby, interviewees were allowed to talk on any other subject of emotional concern and are not listed in the list of questions. The unstructured interview helped to probe more emotional outburst on their dissatisfaction and concern.

On average, each interview session lasted one hour, and all the participants answered the questions posed to them. Many added more subjects than those listed in the questions. Probing questions explored what the participants had said in more depth. As the participants provided their responses to a question, the researcher sometimes looked at her interview guide or made short notes of the points made, to see which areas were being covered by the answer. In this way, any areas that needed further exploration or explanation were able to be identified for probing. This is conducted throughout an interview session to allow information to be prioritised and further exploration identified (Silverman, 2000). All respondents confided that they found the questions clear and relevant and also a place of relief to spill out their heart concerns. There were even suggestions that researcher should do something to change the way of operation and work in DBP.

Researcher first tried to create a warm and friendly atmosphere before the interview and throughout the interview. This seemed to work to open up the interviewees and to make them more willing to share their experiences and concerns with the researcher. The issues discussed looked very straight forward at first but as the interview situation developed, some of the interviewees started to be more open, as evidenced when some of the interviewees insisted that certain part of their revelation should be out of record, when the criticism against the Company and government became a little out of control for them.

Nevertheless, this did not disrupt the sessions, but instead help to create more emerging issues. At the end of each session, the participants were asked to give comments about the session and were also thanked for their co-operation before the session was brought to a close. It can be concluded that the responses received were of good quality and depth, and some are rather emotional. This confirmed the appropriateness of the qualitative method adopted for this research.

5.3.2 Methods of Analysis

Interviews were conducted in the Malay language and only one in the English language with a little mixture of Malay. Some interviewees answered in mixed Malay and a little English. With the Malay speakers, questions were also asked in the Malay language. This was allowed to let them feel comfortable talking about their experiences and concerns. The transcripts were first written as Microsoft® Word® files in the Malay language and then translated into the English language by the researcher. Being a translator herself, researcher is confident that she captured all essence of the interview. Where the answers are in the English language, it was retained in the interviewees' language flow. This transcript was saved in rich text format as required by NVivo, the software used to analyse the data.

The researcher read and re-read the transcripts to familiarise herself with the data. It was first coded manually several times but later transferred to NVivo 7.0, where the researcher was able to code and categorise the data into a more systematic and structured format through coding of texts and creation of nodes.

According to Rubin & Rubin (1995), coding is the 'process of grouping participants' responses into categories that bring together the similar ideas, concepts, or themes you have discovered'. Coding involves 'the development of conceptual categories, typologies or theories that interpret the data for the reader' (Merriam, 1988), by looking for recurring regularities in the data and comparing one unit of information with the next. Following this advice, the coding process was conducted in stages. First, a few main coding categories were

set up based on the categories of questions developed from the themes in the preliminary findings. Miles & Huberman (1994) call these descriptive codes as they entail little interpretation because 'the researcher attributed a class of phenomena to a segment of text'.

Then, some new codes were added whilst the interview scripts were being revised. At this stage, the researcher coded anything believed to be of help in the data analysis. This involved identifying themes as inferred by the data. Periodic readings of the scripts and the descriptive codes brought to the surface conceptual categories from the coding made to show interpretations of the data (Miles & Huberman, 1994). The use of NVivo software in the analysis eased the researcher in her retrieval of the data and in making changes to codes. As the analysis progressed, the coding was revised because some codes did not work any longer or have decayed. For example, the initial eight categories based on the eight sets of questions were later expanded into ten themes, whilst 'Work Procedure' that was initially coded under 'Editors' was later moved because issues described within this context were more relevant to the 'Work Related' nodes. These revisions and analysis of the interview data resulted in the identification of ten conceptual categories successfully extracted from the responses provided by the participants to the eight sets of interview questions. The next section will discuss these categories in detail in relation to the 5 propositions adopted and made in the preliminary study.

5.3.3 Analysis of the flow of data

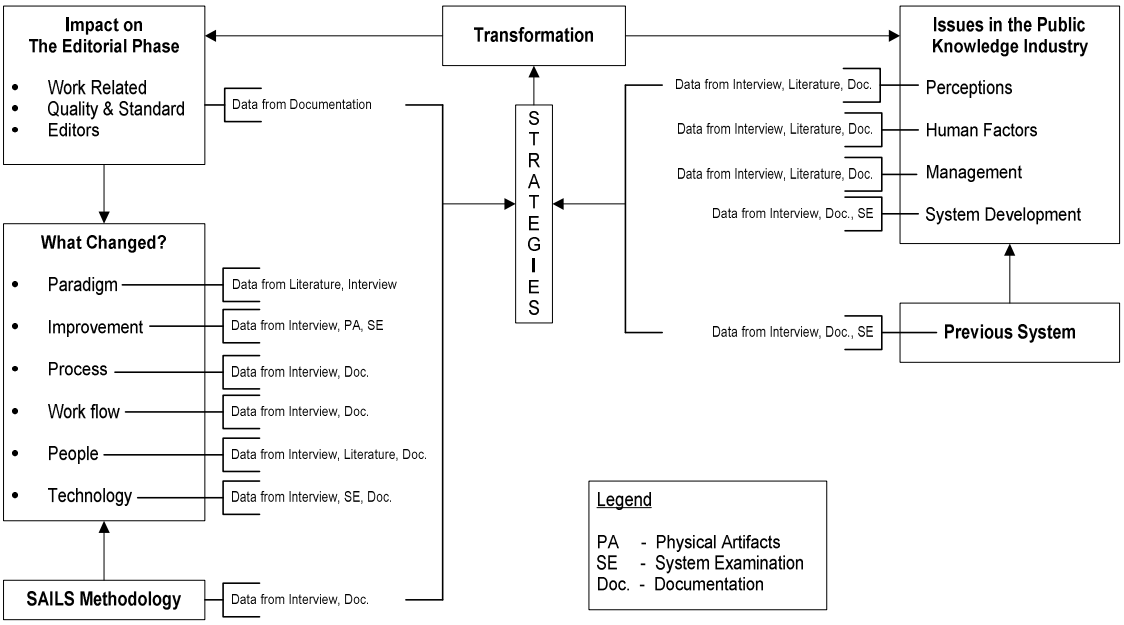


Figure 5.2 The flow of data

Figure 5.2 shows the flow of data in the study. Data on the impact of transformation were derived from documentation data and personal observation in the company. These were then formed the scope of the research to determine the entities that built up the changes that occurred among the elements in the editorial phase. Each of these elements was obtained from the interview data and supported by other sources. The same applies to the investigation of issues and previous system development. All these data were then used to determine the strategies needed to overcome the barriers in transformation or to explain the phenomena occurred in the transformation.

In the knowledge phase too, standards which also contributes to the quality of product will change and this is further explored and confirmed. In this case the 3 sources that were used to confirm this, The Manual on Work Procedure, The Gaya Dewan and Administrative Forms has been used as the main references by the editorial phase, thus became the basis for the examination. It was found that the proportion of change is very significant, indicating the need to revise documents pertaining to standards and quality of knowledge work. This forms part of the guidelines proposed at the end of the

thesis where there is a critical need to revise the manual on work procedure, which also includes the revision in the roles and duties of all affected by the transformation or change and it should start with the top management and then move further down the line, for the top down management structure. This should also indicate clearly the demarcation line for each role in the manual, thus avoiding further issues in work related areas associated with it. Secondly, there is a crucial need to revise the Company's house styles in cases of transformation, as part of the guidelines for editors and thirdly, there is a need to adhere to other standards and methods

5.4 Addressing the Propositions

5.4.1 ***Proposition 1:*** *To Further Explore and Understand the HITEC Issues (Human Factors, Information, Trust, Expertise and Diffidence) In E-Transformation and What Transpired it and How these Issues Affect the Transformation of The Editorial Phase.*

The results of the focus interview revealed a much more complex issue than emerged from the preliminary interview. There were so many issues that transpired, the researcher decided to group them together in a tree node hierarchy, thus presents 4 major issues contributing to the issues in transformation. These issues are as listed below and shown in Figure 5.3:

1. Automation related issues, encompasses the issues on perception, including negative perceptions on automation and scepticism on automation.
2. The issues on management, includes issues on authority and government related issues.
3. Issues related to human factors, includes attitudes such as diffidence, distrustfulness and indifference towards automation.
4. System development issues, includes the Computing Division, contract and contractors.

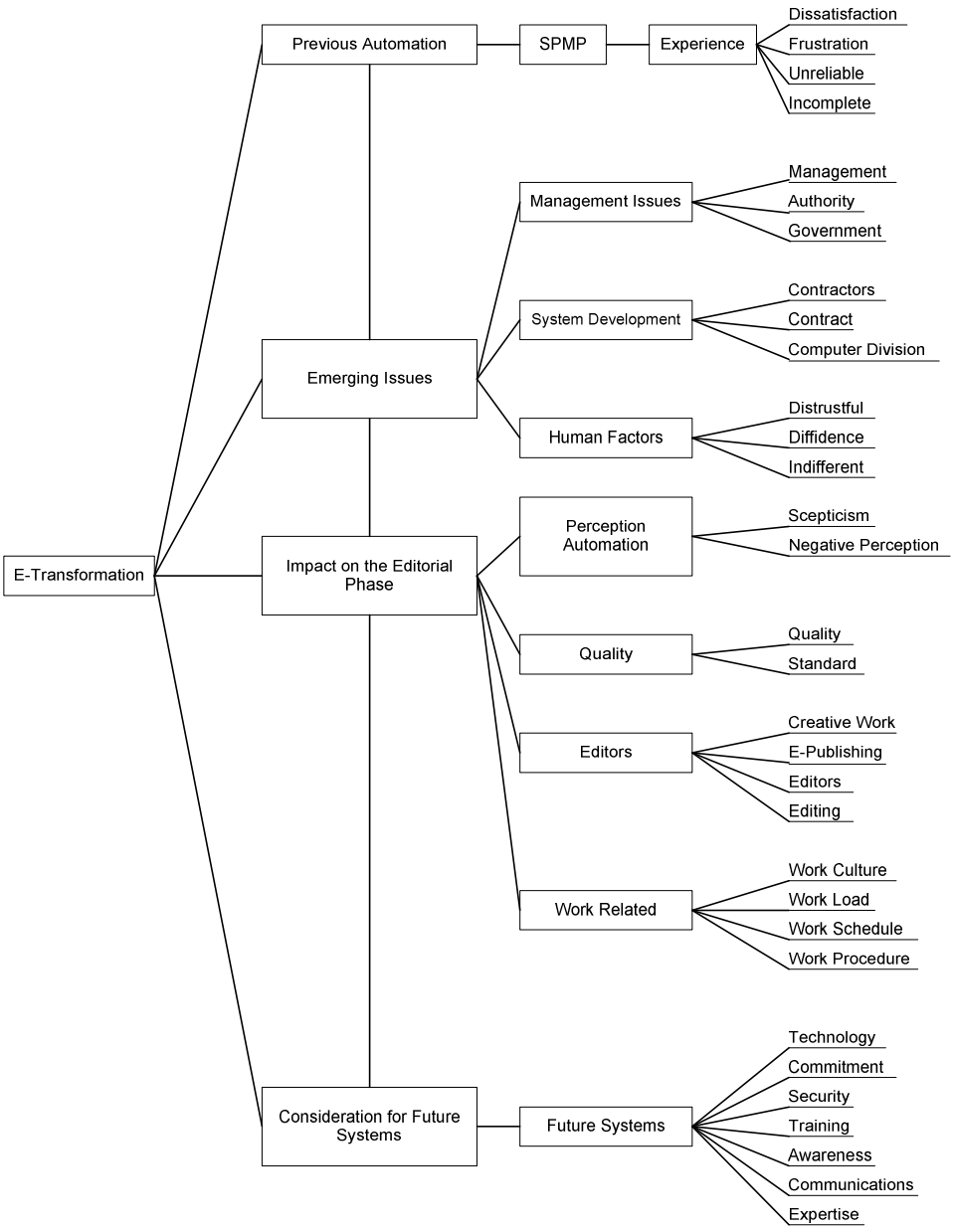


Figure 5.3 Emerging issues in e-transformation in the editorial phase grouped into relevant categories.

5.4.1.1 Automation related issues

Automation in the Company yield issues that are of concern towards the editors as well as positive ones. Overall, 14 editors recorded optimism and positive perception on the introduction and the idea of automation but have their

reservations in their views towards many aspects as well, which resulted in the negative thinking and the scepticism faced by the editors in automating the editorial phase.

> *"I think it is the right way, if DBP gives the real support to the online system, I think that is the best solution for the editorial phase." (*2.010; App. 3)

However, since this research only focussed on finding out the issues of much concern among editors in automation the study will further focus on negative perceptions and scepticism towards automation.

i. Negative perception and scepticism

Negative is an attitude of denying, opposing, rejecting, resisting, unfavourable and disprove of something, while perception is regarded as an understanding feelings towards, the approach, the impression, the insight and the viewpoint of someone towards something. Negative perception, in this context, carries the meaning of denying the effectiveness of, opposing to the ideas of, rejecting the plans towards, resisting the use of, unfavoring the changes brought by, and disprove the idea of automation in accordance with past experiences and the understanding that someone has on the subject, the feeling automation brought to the person, the approach taken by the appropriate authority to achieve that, the impression it has given on that, the viewpoint based on knowledge and experiences, and the insight of the person towards it. Negative perception on automation records 120 references from 13 sources in the interview. Most editors showed mixed feelings on automation of the editorial phase. Many have a positive attitude towards it but have their reservations as well (120 references from 13 sources, similar numbers to the negative perception), while optimism recorded 72 references from 13 sources.

Scepticism, is disbelieving that automation could achieve something, doubtful that it could be implemented successfully and fully utilised, suspicious on many things that could affect it; uncertain about the future it could bring an unwillingness to use the system. Scepticism recorded 53 references from 11 sources. In the tree node, scepticism is recorded as the child node of child node.

In reality, it carries the negative perception, explaining the reason it is the child node of negative perception. There are many codes between the two that are overlapped, where the first sentence refer to the negative perception while the following sentence refers specifically to the scepticism or both just indicated the same attitude or it was assumed that scepticism is also a sign of negative perception, *vice versa*.

> "*The only proof is on the editing, how you would proof that the manuscript is badly written, you have to do a lot of editing on it, before we could show a lot of proof on that. But on screen even if you do 4-5-6 times of corrections, in the end what you could see is the final version. We print out the final version but no one could see those early stages that need a lot of editing*." (2.023; App. 3)

Three types of scepticism are noted in the research, scepticism on the authenticity of the product, scepticism on the validity of process and scepticism on technology. Scepticism on the authenticity of product is in connection with the payment system implemented by DBP, where contracted editors are paid based on the heaviness of the edited manuscript and the difficulties of their work or the text, whereas, the work of the writers or authors are judged based on the quality of their work, which represents itself on the edited version of the manuscript, that will include commentary remarks by the editors themselves. While editing work is paid within the range of 0.01-0.05 Malaysian cents per word based on the original work for translation work or original manuscript edited on, authors are paid a lump sum amount based on the field areas of work and if the work is published they will further be paid the honorarium determined by DBP. The concern faced by editors is in determining whether the original manuscript is fit to be published by valuing it through the first editing or the amount to be paid to contracted editors. They do not see that the online editing could produce a master edited copy that could be accounted for payment and fitness issues, since the master edited copy is equivalent to the blue print document in the editorial phase.

In scepticism on the validity of process, editors' experience is that e-mails are not the best solution to communication within the Company. They are sceptical that in automating the editorial phase, where letters are replaced by e-mails, their messages will not go through or will not be taken seriously. In the conventional editorial phase, letters play a major role in communication where each official letter will normally have another 2 or 3 copies to be distributed among its bureaucratic files, depending on the level of the signatory. For example, if an editor sends an official letter to an institution requesting professional help in verifying data, and the letter needed to be signed by the Director of Publishing, one copy of the letter will be kept in the Director's file, one copy in the Head of Division's file, one copy in the project file and another copy in the editor's own file. The handling of forms is in the same manner. The close relationship with their authors is bound by letters. So far, letters is still the major tool of communication in the editorial phase, thus the scepticism that they could be replaced by e-mails or furthermore predesigned letters.

> "*...what we know DBP is now, the top management only mentioned about automation, e-government but the reality is, we do not need letters anymore, communication via the e-mail is more than enough. But, when we communicate via the e-mail, it is as if there is no communication at all.*" (2.024; App. 3)

Scepticism on the technology is occasioned by the implementation projects that have not materialised in the Company or incidental to delays that rendered systems obsolete or useless and also techno phobic users.

> "*We need to have a principle on implementation wise, it has to be fully implemented and it has to be able to increase our productivity, increase our quality and we need to make sure it is secure. If we are not careful with technology, it might not facilitate our work, but increase the time factor.*" (2.025; App. 3)

Since all editors are equipped with a computer it is alarming that some editors voice the concern on automating the editorial phase, where technology is not seen or accepted as a support tool to facilitate work.

> *"...it is also true that there are still many editors who could not use the computer. How are we to go online when many editors could not even edit on screen."* (2.026; App. 3)

Hence, the research concluded that scepticism contributed to the issues in e-transformation of the editorial phase, and it could be categorised as scepticism on authenticity of product, scepticism on validity of process and scepticism on technology and scepticism is construed as the entity of negative perception.

5.4.1.2 The issues on management

Management in this context refers to the top management team in the case Company, the management team and the decision makers. These people are those that normally sit in the meetings of the Board of Directors or any other meetings of equivalent standard or higher (involving government policies) and those sitting in the Managerial Meetings (Company operations) which will include all Head of Departments, Divisions and Units. 134 references were recorded from 12 sources in all aspects of the running of the case Company.

Issues on authority and other government issues are also placed as the child node of Management. Issues on authority recorded 14 references and issues on other government subjects recorded 36 references.

i. Issues on management

Research found that editors are not very happy with the attitude of the management team in handling automation projects especially involving the use of systems, where 11 responses were recorded from the editors with regards to their dissatisfaction towards the top management team.

> *"To them we should adapt. We are the minorities."* (2.011; App. 3)

The top management put the blame on the editors for the failure of a system and to these editors, they are being bullied by the system, making them feel like the minorities, thus forcing them to just follow instructions without questions.

Comments by another editor such as below imply the inefficiency or lack of credibility of the management team to develop in all areas of work to foster towards a better organisation.

> "*Our focus should not have been born yesterday. We were not born yesterday; we were born 50 years ago. Half a century ago and yet these routine things, when I was in Management, I always think of how to settle these routine things so that we will not be bug by this matter and we can spend more time thinking about big things." (*2.012; App. 3)

Editors also feel that the management team is not knowledgeable in many areas and does not fully undertake the responsibility to equipped themselves in matters of concerns when they undertake a certain move.

> "*…the management team, let us say they do not know a thing about it or if they do, not fully knowledgeable on that matter.*" (2.013; App. 3)

Editors are also very disappointed by the way the information is communicated to them by the top management, reducing it to just rumors that could not be accounted for in its reliability. They feel that the management should be more open and responsible in projects that will affect them or they feel disappointed that a long envisioned project took a very long time to materialise.

> "*…so far, this has not been materialised yet in DBP. Look, until now, there is still nothing. We do hear rumors on automation project but where is it? Where?." (*2.014; App. 3)

Editors also demanded the commitment of top management to involve themselves in any project they undertake in the Company. The norm in the Company is where, the involvement of the top management are in decision making involving budget that are within their jurisdiction while the implementation and running of the system is not given a fair attention, thus the failures of many system, as accounted by the editors.

> "*If the top management does not use the system, nobody will. There must be a kind of push. There must be commitment from the top management*." (2.015; App. 3)

ii. Issues on authority

In this case authority means the signature on paper documents or any other official forms that signals authorisation or clearance to proceed to the next stage or step in the work system. In general, the Malaysian government still emphasised the use of official letters as the form of accepted authority and the editorial phase is no exception. These letters are the form of authority that has been ingrained in the government bureaucratic processes on many aspects of the editorial phase such as letters of acceptance;

> "*… we received one payment or whatsoever, or we have received it, we only inform the writer in the system. We will follow with an official letter." (*2.016; App. 3)

letters of appointment;

> "*I think we need to have letters. Because when we appoint someone, it is no easy job. Only the CEO has the authority to appointment anyone." (*2.017; App. 3)

monetary statement;

> "*If we compare it to the banking system, computer printout needs no signature, yes that is valid. It is valid according to the management of the banking institution. With us…I do not know…if that is the case, let it be…."*
> (2.018; App. 3)

and cover letters;

> "*…we are government; in the finance division we have already implemented that. Our statements have no signatures. They might have cover letters though…we still have that." (*2.019; App. 3)

iii. Issues on government

The Government in this context refers to the Government of Malaysia. Many of the issues raised in relation to automation are also related to the management, since the governing of the organisation of a public sector runs hand in hand with the Government policies and procedures. Since the Company is 'government controlled', it has an obligation to provide social services to the country. Thus,

the automation is seen not only as the venue to create more businesses but also as a platform of social activities, reminiscent of the old setting.

> "*... you are standing on one institution supported by the people. You have to give back.*" (2.020; App. 3)

Therefore, as a public sector, some editors feel that the Government should increase the funding to develop the knowledge industry, equivalent to other public sectors, which many has been receiving two times more subsidies than DBP.

> "*Books, book publishing, why are there no subsidies? Isn't this a knowledge centre?*" (2.021; App. 3)

Editors also feel betrayed by the governments' policy where the management team as decision makers, do not provide enough space, opportunities and venues for the editors to voice out their opinions unscathed.

> "*The bosses are always like that. This always happened because we have no right to make the decision.*" (2.022; App. 3)

From the stand point of editors, it could be concluded that the top management team is one of the major issues in e-transformation, whereby in this context, it involves the professional attitude of members, expertise, communication and commitment. Research found and concluded that a top down redesign effort where transforming the top management prior to other areas will benefit the editorial phase.

5.4.1.3 Issues related to human factors

This also includes attitudes such as diffidence (lack of confidence), distrustfulness and indifference towards automation.

i. Human factors

Human factors relates to the attitude problems, bad attitudes such as being cynical, discouragement and pessimistic in doing a work. Human factors recorded 52 references from 11 sources. Some codes overlapped with the other child nodes, which encompasses part of the human factor issues. One factor

concerning the editors themselves is their dependencies on the support group, and the unprofessional attitude of the support group themselves.

> "*XXXX will do the typing; everything will be done by XXXX (the typist). Sometimes when we dropped in at her work station, XXXX is asleep*." (2.027; App. 3)

Management and peers also took an indifferent attitude towards bringing technology and human together.

> "*… when I came here, nobody tells me whether I should use the system or not. So in the end, I only use it to register my new title, that's all. The other functions, I do not use at all."* (2.028; App. 3)

The unfriendly system available for the editors discourages them in doing their work using the system. Since all have worked in DBP for more than 2 years, they all fully understood the nature of snail-paced changes in the organisation.

> "*We are doing all these stupid things… things have not changed since the day we join this organisation*." (2.029; App. 3)

Some editors are so immersed in working with the hardcopy and do not intend to change to the new working style with the computer. To these editors, working on hardcopy is the real editing and could not care less on trying a new method.

> "*These editors still want to use hardcopy*." (2.030; App. 3)

Data entry as a way of documentation did not work hand in hand with the editors who themselves have a substantial amount of editing work to do, not including the administrative tasks they have to abide by. Therefore, they turned to a much less tedious work of data entering by using the bureaucratic files, where data is stored by only photocopying the original document and keep in the file.

> "*We are lazy to enter too many data because we are use to using the file, we do not need to enter any data."* (2.031; App. 3)

ii. Diffidence

Diffidence refers to doubtfulness, faithlessness, reluctance and hesitation in making a move. Diffidence recorded 33 references from 9 sources. There is the feeling of diffidence on using a system among the editors;

> "*.. it will save DBP, not many manuscripts to edit and less clutter. I do not use the system because it is too new for me and I am afraid that if I do not save it, it will not print what we have marked." (*2.032; App. 3)

diffidence on the work;

> "*On screen we could scroll over and over, but on screen, if we delete something from the original, we could not see again what the original is, we could not see what is down there*." (2.033; App. 3)

diffidence on the process;

> "*The automation might be at the production side. But we (editorial) do not see it goes fully*." (2.034; App. 3)

diffidence on the editors themselves;

> "*I must print first for me to check thoroughly, even though I can read it on screen but I must have it printed first, I will read it thoroughly and then make the amendments then only I will feel confident*." (2.035; App. 3)

iii. Distrustfulness

Distrustfulness refers to the act of disbelieving in something. Distrustfulness recorded 20 references from 7 sources. Editors reflect their distrust on the system by assuming that the system was built as a tool to monitor their work, their performance and their whereabouts.

> "*... when they say we should automate, maybe to them it will be easier for them to monitor us*." (2.036; App. 3)

They also distrust the management because they think that the management has made many errors in implementing a system right from the early stage of development due to several reasons, which will be discussed further in the following chapter.

> "*... we do it first, and think later, the management of the system/project is not right from the early stage, that is why we have all these problems when we want to go online.*" (2.037; App. 3)

iv. Indifference

Indifference refers to the act of detachment, disinterested, dispassionate and uncaring towards a system, people, organisation or self. Indifference recorded 22 references from 6 sources. Editors feel that the computer unit is turning a blind eye towards their plight in using the system.

> "*The Computer Unit, they only want us to use everything first, they do not care whether we like it or not.*" (2.038; App. 3)

To the editors, the management failed to provide necessary documentation or information regarding a system. To these editors, the product should be made known to the organisation then only to the outside world but the case in the Company is the reverse, or worse, where they were not given the explanation. The irony is that the editors knew that there was a budget on promotional activities but editors were never given due attention.

> "*The others have not been given the adequate explanation, including editors in DBP itself. We were never given the explanation; the multimedia unit has never given explanation on how to use the online system, which is why people still do not use it. That is the problem. If we have been given the explanation, maybe one or two would have tried it and give feedback. Even though the system has been running for one year, we have never been given the explanation.*" (2.039; App. 3)

Nevertheless, editors themselves are not interested in using the system and do not make any effort to improve themselves to use the system.

> "*Sometimes people do not even log into the system.*" (2.040; App. 3)

5.4.1.4 System development issues

This also includes the issues on the Company's Computing Division, contracts and contractors.

i. System development issues

In this context, system development is referred to as the process of transformation from a non-system to a developed system or from an old system to a new system or any system, which needs upgrading. System development recorded 7 references from 4 sources. Editors felt that the building of the system should take into consideration its other counterparts in the private sector vice versa.

> "*In DBP, there are two components. One is the external company that is doing the production work and the other is those doing the editorial work. So what needs to be done is a compromise in implementing a system. The system must be compatible to both. It has to be compatible with DAWAMA, meaning it has to be suitable. We need to discuss on this thing first.*" (2.041; App. 3)

Nevertheless, editors are also concern on the ability of the system to be implemented, thus voicing their opinion on the need to build a system that will be useful and of benefit to all.

> "*... need to have a principle on implementation wise, it has to be fully implemented and it has to be able to increase our productivity, increase our quality and we need to make sure it is secure.*" (2.042; App. 3)

ii. Computing Division

Computing Division recorded 37 references from 4 sources. Editors had bad experiences on unfriendly previous systems and are not keen to have another system of such nature;

> "*When they built a system they must build a system that is friendly to everybody, to the users.*" (2.043; App. 3)

Editors also believe that the Company, though fully equipped, needs upgrading in their system if the Company is to start the automation of the editorial phase.

> "*We need upgrading in infrastructure.*" (2.044; App. 3)

Due to their lack of expertise, the editors think that they are not much of a help in troubleshooting or giving explanation regarding certain aspects of the system.

> "*When you ask them, they are not much of a help too.*" (2.045; App. 3)

iii. Contracts

A contract is a binding document between two or more parties. In this case, it recorded 7 references from 2 sources. Most editors are not aware of the contracts made between DBP and its private counterpart, more so if they were not involved with it at all. Contracts that have a long duration of self-life signed before automation were a great concern to editors who are passionate about their projects.

> "*Whether we would like to release it conventionally, print it, via the internet and the public could access them or we only keep it in the system. By that time, maybe the top management need to review back the contract." (*2.046; App. 3)

iv. Contractors

Contractors recorded 59 references from 9 sources. With different objectives, the contractor, to make money and the editor to fulfil its social obligation. Editors are in constant row with its partner over many things. DAWAMA, which is directly involved in DBP's production line (the production, printing and marketing of DBP's product), suffers the most due to the fact that it is the sole contractor to benefit from the business. Moreover, the fact that DAWAMA, once

part of DBP itself, which served the same purpose before it was divorced from DBP, gained the title of sole beneficiary of DBPs' production line and its' wealth through the privatisation of a large part of DBP. The privatisation of DBP's production line and the formation of DAWAMA are not transparently known to the editors, and as always, rumours became the assumption of true beliefs. Therefore, editors were unhappy when DAWAMA is involved in much of the decision in the production of books.

> "*You (DAWAMA) do not take the function, but now you want to act like the publisher. When we make a schedule, they overwrite it. That is not right. They are not supposed to join the Meetings on JKP or JKE, to determine the book.*" (2.047; App. 3)

Though not much is known on the contents of the binding contracts, (when requested to study the contract from DBP's legal adviser, researcher was told it is a very highly classified document and will be quite impossible to be studied) it is well known that the concession is for 12 years from the early 2000's, and the editors realised that they will still be bound by the contract for many years to come, even when automation is in place in the near future.

> "*The 12 year concession? Well, what we were told on the 12 year concession with DAWAMA is what we knew on things before automation will be fully implemented.*" (2.048; App. 3)

Editors are also unhappy that the designing of the book or material lays solely on DAWAMA. Though editors are needed to give their specification of the book, these will be overwritten by DAWAMA when they feel there is the need to do so.

> "*It is because they determined it; they have the authority to design the book. We are only editors, who are we to determine those design specifications. Let us just say in our work, six and a half by nine and a half, centralised, all caps, running head, folio numbers centred and so on but over there, these things will be changed.*" (2.049; App. 3)

A section under DAWAMA, which used to be the quality controller in the technical aspect before the privatisation, assumed the same duty when it was

privatised but with added privileges for the technicians such as increment in salary and overtime pay. The PKS, formerly known as the Division of Publishing Coordination, is the place where the meetings and marriages or divorce and reconciliation of the public and private sectors in DBP used to be. Before the privatisation, this Division oversaw the quality and standard of the prepress phase, the printing and storage of books. This Division also determined the selection and performance of the contractors in this end phases. However, with the privatisation, the Design Unit, that was in charge of designing covers, layout, illustrations and diagrammes was also privatised and became a part of DAWAMA. Hence, the distaste felt by the editors when DAWAMA fails to perform its duty efficiently according to the editors' expectations.

> "*...from the aspect of quality control, the PKS who is in charge of that in the print publishing, they are not willing to do it. They say they do not have the capabilities to do so, so we have to look into that as well. So our editors, we have to look at the intellectual aspect as well as the technical aspect. And that shows we are capable." (*2.050; App. 3)

Research could also conclude that there are issues on contracts and contractors between the Company and its contractors. It could also be confirmed that the Computing Division is another issue in the transformation. Research found that e-transformation issues are also contributed by weaknesses in system development, whereby, *at supra*, a top down bureaucratic management system would be beneficial conforming to a top down approach in system development. If it follows Venkatraman's (1994) approach, it should apply the seeking efficiency approach, which focuses dominantly in rectifying current weaknesses.

5.4.2 ***Proposition 2:*** *To Explore and Understand the Implications of E-Transformation on the Product (Standard, Quality), Process (Work Procedure, Work Schedule,) and the Editors (Responsibilities, Workload, Commitment, Training and Communication) in the Editorial Phase.*

5.4.2.1 Understanding issues in quality

According to the interviews with the editors, standards and quality will not change in the course of transformation, but some disagreed.

A standard is a published document that contains a technical specification or other precise criteria designed to be used consistently as a rule, guideline, or definition. Standards help to make life simpler and to increase the reliability and the effectiveness of many goods and services we use. They are a summary of best practice and are created by bringing together the experience and expertise of all interested parties – the producers, sellers, buyers, users and regulators of a particular material, product, process or service. Standards are designed for voluntary use and do not impose any regulations. However, laws and regulations may refer to certain standards and make compliance with them compulsory.[31]

Part 3 of the CEN/CENELEC Internal Regulations defines a Standard as a document, established by consensus and approved by a recognised body that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context. Standards should be based on consolidated results of science, technology and experience, and aimed at the promotion of optimum community benefits.[32]

In the case Company, conforming to the standard applied determine the quality of the product or services offered.

[31] www.bsi-global.com
[32] www.cenelec.org

i. Issues in quality

Quality recorded 8 references from 2 sources. 2 different types of quality were detected from the interview, time related quality and editorial related quality. While time related has never been the measurement of quality in the conventional processes, editorial related has been the measurement of quality all along, which encompasses the references use by the editors in the editorial work. This will be discussed further in the next Chapter.

> "*The quality of work could be the quality of the editorial work and precise time wise. With automation, we hope that we could fasten the time. Especially in KaryaNet, when we do our work online, our communication is online, so definitely the onscreen editing is a big help.*" (2.154; App. 3)

> "*From the point of quality, in our conventional way, we uses Gaya Dewan, we have The Manual on Work Procedure, so if we automate, we still do from the point of the quality of manuscript. Only the work procedure will change. Our references will still be the same.*" (2.155; App. 3)

ii. Issues in standard

In terms of the standard of the editorial work, 4 sources agreed that the standard will remain the same after automation

> "*... the standard will remain the same if we automate."* (2.051; App. 3)

In DBP, measurement of standard of work is always related to the performance of the editor where it is based on the number of manuscripts handled by an editor annually. This is considered rather unfair since all manuscripts are different from one another, be it in the number of pages, field areas, types of manuscripts (illustrated or straight text) and so on.

> "*... based on the number of manuscripts a year for each editor.*" (2.052; App. 3)

There are also views that the standard is measured based on the quantity of editing done by the editors annually, which does not include the administrative task that these editors have to handle.

> "*In the conventional way, we measure based on how much editing done annually, and with consideration on quality*." (2.053; App. 3)

Overall, there is no standard measurement to measure the standard of editorial work nor is there a standard quantifying measurement for the work of the editors.

5.4.2.2 Understanding the work issues

i. Issues in work culture

Culture refers to the values and behaviours shared by the staff in an organisation. *'DBP culture'*, has its similarities with other organisational culture involving the Malays as well as its uniqueness, whereby it relates to the editors and the creative work.

> "*Normally what we do in DBP other people do (proposed) the system and other people use it. We are so comfortable with the old way of doing our work."* (2.055; App. 3)

Sometimes, the work culture relates to age as well, where the later generation of editors in DBP, tend to show some kind of similarities among them, in consequence of the long training and experience they had on editing on paper.

> "*...even though they have been given courses on onscreen editing, only a few editors do it. Most, especially the senior ones, they are so used and still edit the conventional way (on paper).*" (2.056; App. 3)

Difficulties in changing the work culture hence became a hindrance in adopting technology.

> "*... to change to something new, that might take time....*" (2.057; App. 3)

ii. Issues in work procedure : The manual on work procedure

This manual formed part of the standard and quality of the editorial phase. The Manual on Publishing Procedure[33] is divided into 7 sections; Policy, Tasks and Responsibilities, the Process and Procedure of Publishing, Charts, Mapping of Field Areas, Rates of Payment, and Costing and Approximation of Cost. Editors agree that the previous system is;

> "*... this is not a management system. If you do not use the system, you will fail. That is the catch. Because this is not a system on how you do your work. This is a tool to produce the product. If you do not use it, you will fail.*" (2.058; App. 3)

Based on their experiences editors agree that by using an on screen/online editing system, they could reduce or simplify the steps taken to produce the clean manuscript.

> "*... what we are doing now is as good as producing the clean manuscript. I think maybe the proof phase, I do not know. Maybe we would like to directly publish from here; we do not need the proofs anymore. Not anymore!*" (2.059; App. 3)

Therefore, to achieve this, the work procedure will need to be changed. The present procedure does not include any automation.

> "*We will change the work procedure for the purpose of automation. It will change. We will need to skip some of the steps in the work flow.*" (2.060; App. 3)

iii. Issues in work schedule

The Organisations' Scenario - *Administrative*

The Publishing Department consists of 8 Divisions; these are Social Sciences, Science & Technology, Magazine, Encyclopaedia, Religion, Text Books, Multimedia and Copy Right. All these Divisions, except for Copy Right, have their own editorial section.

[33] Dewan Bahasa dan Pustaka, Malaysia

The SPMP is a database system to store data on publication works and to keep track of the progress of manuscripts. This structure is limited to the Dept. of Publishing and so are other structures in the Department that serves their own microcosm. However, SPEE, a database system for entries of encyclopaedias, is not linked to any other division except the Encyclopaedia Division, which is under the wing of the Dept. of Publishing. The finance structure provides financial forms, which could be accessed online and filled in but needs to be printed out and sent by hand back to the Finance division due to authentication problem. The language structure has its own system linking it to the centre but accessible only to its own staff. Other departments and divisions have since developed their own structures to facilitate work within their own microcosm.

In normal conventional cases, for a letter to be sent, 3 drafts were needed before the job could be approved and transferred. The first draft is for the editor to conduct copy and contents editing. The second draft is for the editor to produce the clean document and the third is for the insertion of a given reference number. The clean copy is then sent to the person authorised to approve the document. Transfer of documents from one division to another within the Company is done by hand by the support group and transfers out of the Company by postal services require the approval of the Administration section. The movement of the document from one section to another is recorded by a clerk in either a report book or a designated file for the said project. Altogether, this process involves 5 stages of work group, from Management to Support.

In the conventional phase, editor's formal communications with researcher and all external communications are via the administrator, where, every letter sent will go through the same process of typing by the support team, insertion of a file number and verification by the Head of Division/Department, then delivery by the Administration section. After editing, in the case of manuscripts, it undergoes a series of transfers to and from the editor via the

administration process to produce the clean and complete manuscript. Again, it has to undergo 3 administrative forms in the process of transfer to prepress.

In the conventional editing phase, only one editor is normally assigned to a project, which means, only one editor is given the task of performing the editing work of the said manuscript. However, when corrections are sent to the typists to be amended, the manuscript will be divided accordingly to the number of typists available. The whole manuscript is sent back to the editor, where, a typescript reader is appointed to read the newly printed, amended and edited manuscript. The task of the typescript reader is to compare the new draft with the original manuscript edited by the editor and mark any of the corrections missed by the typists. This 2nd. draft will be sent again to the appropriate typist who amended the first draft and the process is repeated until the manuscript is signed off as 'clean' and could be transferred to prepress.

The Flow of Book Production

1. Registration of Manuscripts/Original Book
2. Update action Form
3. Confirmation of the receivable of Manuscripts
4. Development/acquisition
5. Application of Copy Right (Translation Work)
6. Evaluation of work
7. Costing
8. Editorial Committee Meeting
9. Marketing Report
10. Publication Committee Meeting
11. Project File no.
12. Editorial Phase
13. Design
14. Publishing Contract
15. Prepress
16. ISBN No. PDP Data, Confirmation of Book Price, Bar Code
17. In house Printing

18. External Printing
19. Publish
20. Royalty (Advance, Published, Sale)

The manuscript is first registered in the system by the clerk. Data is stored and updated and a print copy of the data stored is put into the *temporary file*[34]. The file is then passed to the head of division and is signed off to an editor. Editor logs on to the system (SPMP) to acknowledge that the division has received the manuscript. However, the acknowledgement by the editor is sometimes not carried out by the editor. The system used here is the SPMP. A memo is printed and sent to the writer, another copy kept in file. When the system is not use, editors will produce a memo, ad send it to the writer, while one copy is kept in the file. When the complete manuscript is received, it will be evaluated and a costing of production will be prepared for the pre-PCM meeting and finally the PCM meeting. All these were done on paper and forms and later the data stored in by the editor in the system. (This process is sometimes not done by the editor. The system used here is the SPMP). The results of the meeting were conveyed back to the project manager and the latest data input into the system. For an approved manuscript a project file number is assigned by the Personnel Department. From this phase on, the manuscript will only hold one file and the temporary file is inserted into the new file. A memo on conditional approval is sent to the writer, a copy is kept in the file. The design department will start work on the project and data on design is input into the system. The copy right division prepares the contract and the PYP unit determine the typesetting status, whether the manuscript will be typeset internally or externally by contract. The PYP division also prepares the ISBN, Bar Code and PDP (cataloguing). When typesetting is completed the PYP Unit will determine the status of printing, whether internally printed or externally printed.

Work schedule refers to the scheduling of tasks or jobs in the editorial phase from acquisition to printing (before automation and privatisation), such

[34] An opened file of a project which has not been approved in the JKE meeting. It will be converted to a permanent file once the manuscript is approved to be published.

as shown the Figure 5.4. Though editors are more flexible in conducting their work (such as contracting many parts of the work), the process of editorial is not that flexible. There are payments to be made after each process, letters to be sent and people to be informed and forms to be filled along the line. The JKE precede JKP and many administrative tasks to be done in between the two. Nevertheless, there are two extremes on this issue, one where the editors are concerned that automation should follow suit the original order;

> "*We do not go backwards and forwards along the steps, as we like. It must be according to those already determined in the guideline until it is published. There are editors who have not paid their writers yet when they should have done that much earlier.*" (2.061; App. 3)
>
> "*We will cover all types of project. Now we are into the translation project. We are done with original works, how we handle original writings from its conceptual stage, then we register, we plan, we appoint and we schedule the project, we assign the work, we got the materials, we evaluate, we edit till it is clean. Today the number of clean manuscript is 5, 12.01 and at 12.02 others could access it already.*" (2.062; App. 3)

The other thought is that the editors should be flexible in conducting their jobs and the automation system should be able to represent the flexibility and simplicity of the work.

> "*… there will be stages where we could bypass or eliminate, for example in publishing, the proof reading. If we automate (the editorial phase), we could straight away go online and we do not need the proofreaders and furthermore, what we supplied are actually in discs in clean form and it will be processed straight away." (*2.063; App. 3)

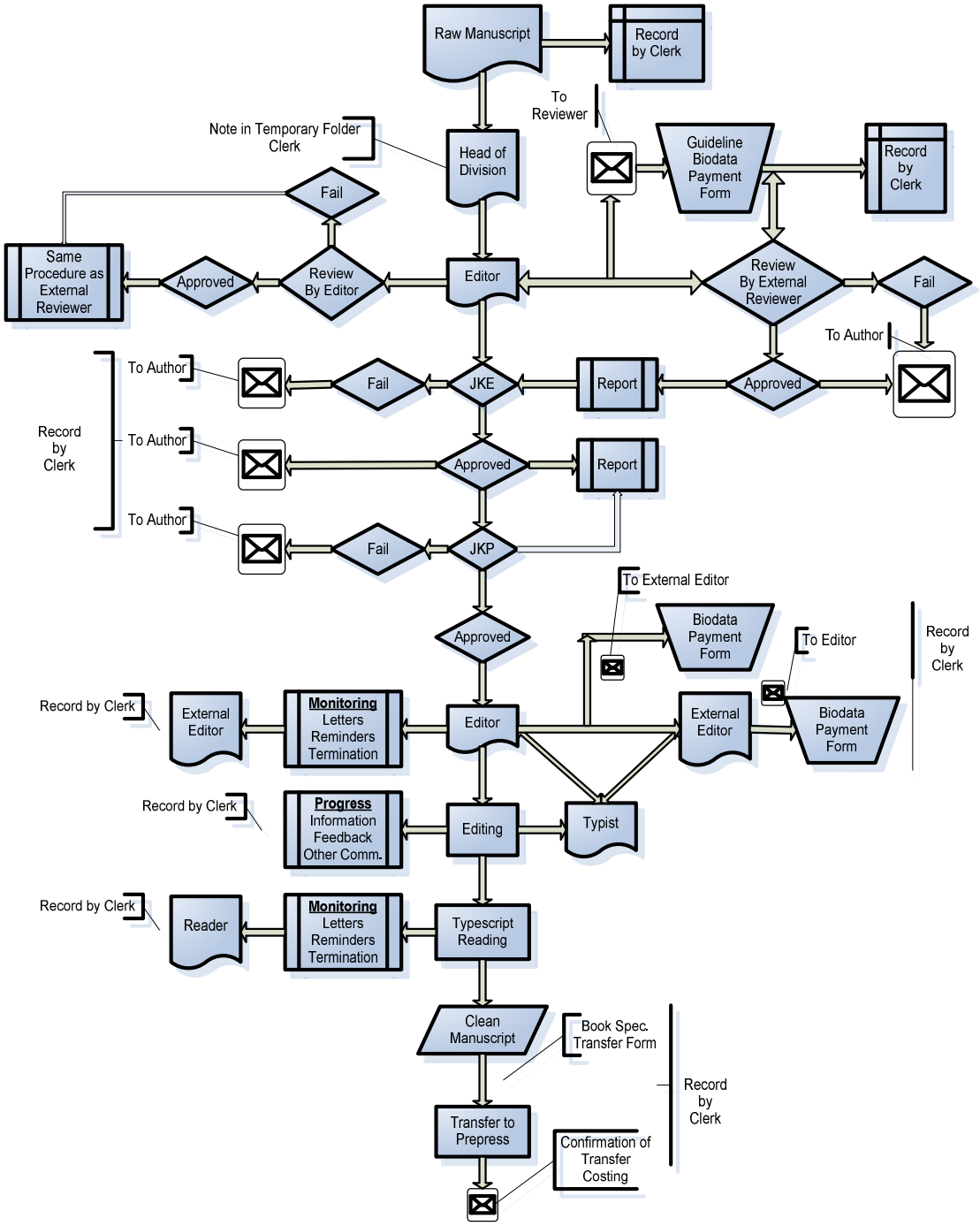


Figure 5.4 Conventional process flow in the editorial phase.

iv. Issues in workload

Editors feel that they are being overburdened with task, be it editorial or administrative. Editors in DBP are given responsibilities such as stated in the

Manual Prosedur Kerja. These are divided into 4 categories, the Senior Editors, Editors, Associate Editors Grade S4 and Associate Editors Grade S5. Though senior editors are entrusted with more administrative work compared to Associates, there is no definite line or boundary as to quantify how much the administrative work is to be except that they are listed under the task that has to be performed by the appropriate editors. These tasks will be discussed further in the following chapter.

"*…. After the evaluation, we have to edit, but not only one or two entries, hundreds and thousands, so we are bind by our target date….*" (2.064; App. 3)

There are no concrete guidelines as to how many projects should a senior editor, editor or the associates should handle in a year, a month and so on.

> "*… we handle too many projects, we ourselves we do not even, though we are editors, our primary work is editing of manuscripts and we do not perform that, we give it out to others to do it*." (2.065; App. 3)

Even though prepress is no longer included as part of editorial, editors feel that they still need to have some sort of involvement in the process since the data on prepress is normally used as projections for future projects in the planning stage.

> "*Prepress is no longer included now except that we need to register, we need to update…*(2.066; App. 3)

> "*We do the acquisition, and that is already a burden. Then we have to get the writer, the manuscript, we need to coach the writer, get the manuscript, edit, discuss with designers, which is a lot of work. And then we have to think about their job, adding more burdens*." (2.067; App. 3)

5.4.2.3 Understanding the issues on editors

Chapter 1 gives a detailed description on the editors. When forwarded with questions on automation, 9 editors voiced their concerns regarding the issues in automation. Among others is the issue on editor's attitudes.

> "*They have to learn. Shake up or shake out*." (2.081; App. 3)

These editors think that changing to a new work style requires much time to adapt to the new system as well as to the new working style.

> "*... to change to something new, that might take time*." (2.082; App. 3)

Editors are also concerned that the time taken to publish a book is too long and they were wondering if the automation could lessen the time by comparing it to the newspaper publishing.

> "*... it is so difficult to publish one book. It took up to 18 months to publish a book, is it that difficult? The newspaper is much more; it is like a very tough pin. So the reporters got the news and sent it to the editors to be edited, checked, proof read and finally set and published. Yes and the newspaper are not that thick, just like a book*." (2.083; App. 3)

Editors insist that a system built for them should have a feedback from them and the role of the editors will be to provide the requirements needed by the designer to implement a friendly system for the editors.

> "*Without the feedback from us, in reality, we should give them the input first, it is like this...this...this...but the details...we ourselves as part of DBP should point out this...this...this....Ha...that is how it should be....*" (2.084; App. 3)

Editors also agree that some of the editors are not knowledgeable in using other software except Word processor. These editors are not versatile themselves in their work and show no interest in pursuing knowledge in other areas though that will be an added value to the work.

> "*... the editors themselves, with their knowledge, the software available, what we have is only Word processor...other people has been using Apple, using PageMaker, we are still stuck with Word*." (2.085; App. 3)

Editing on screen or online as a major part of the automation process is a hindrance to many editors. Since they are not familiar with the new way of

editing, the interest in using it wanes with time and even if they do edit on screen, they will take a lot of time to complete the task compared to the conventional editing.

> "*…many of our editors are not familiar with editing on screen. If they edit it on screen, it will take too much time. So when they are not familiar with it, they do not use it.*" (2.086; App. 3)

i. Issues on creative work

A good creative editor is said to be artistic, original and imaginative in its editing and the product is said to be inspiring and captured the editor's individuality. A good editor is said to be gifted with words and language and has an inventive manner towards editing. The Company (DBP) has been known for many years, in fact since its foundation, as the place where such editors and writers were born.

> "*… because of the uniqueness of DBP, it develops the scholars." (*2.087; App. 3)

Nonetheless, the process of developing a gifted editor is a long journey and DBP is known for building such skills in editors. With years of experience in editing, the skill slowly develops. Many well known editors and writers in Malaysia are or were once associated with DBP.

> "*Dewan's staffs, if they take good care of their capabilities, they matured with Dewan, their skillfulness is associated with the institution. People like Usman Awang*[35]*, is automatically linked to DBP and DBP is automatically linked to Usman Awang. Other institutions are not like that. The skillfulness is developed in DBP." (*2.087; App. 3)

However, editors feel that the skilled editors are being neglected by the Company, which has developed them for many years, some for more than 20 or

[35] Usman Awang (1929-2001), claimed by some to be the best poet in the Malay language, dubbed the peoples' poet. Wrote under the pen name Tongkat Warrant, was a leading figure in 20th century Malaysian literary.

30 years. Editors feel that the Company needs to do something to keep the skill within its boundary and take advantage of it for as long as time matters.

> "*But it is such a shame that the skillfulness is not just not accepted by DBP. It is such a shame, you know. Because the skills in our world is not administration. Administration is routine. But our skills must come with years of experience. The skills in editorial, you could not get in 2 months. The skills in language, literature, it's the kind of skill you will not get in a short period.*" (2.088; App. 3)

Editors feel that the essence (creativity, language skills and field expert) of the editorial work will not be affected by the automation.

> "*From the point of its essence (editorial), it will not change. For example editing work, the language will still be the same. The language will still be based on books (reference) and Gaya Dewan. That will not change. In writing bibliography, the convention on writing scientific names will still be the same; the presentation will be the same. Only our work procedure will change.*" (2.089; App. 3)

ii. Issues on editing

18 editors voiced out their concern over onscreen or online editing, while 33 took part in the editing tasks. Several different issues emerged in the interview regarding online or onscreen editing. Editors are aware that they are too accustomed to the old way of editing on paper, became very comfortable with it, and tend to disregard the advantage of onscreen or online editing.

> "*I do prefer the old method of editing on paper because when we print we could see it sequences, at least one copy must be printed out because when you have compiled the whole thing out, and when you need to find something or somewhere the mistake is much easier to identify on paper.*" (2.090; App. 3)

Editors also argue that the tendency towards editing on paper is also due to the training they had when they first came to DBP, which is to be trained on paper, instead of on screen.

> "*Because we were train from the start to edit on paper. What do you think? Why are editors more creative editing on paper.*" (2.091; App. 3)

Even though some editors feel at ease with editing on the screen, they find it a lot more difficult when it comes to reading the manuscript on screen.

> "*With the onscreen editing, I think it is a lot easier but sometimes when we read on the screen compared to reading on paper, we see more when we read on paper.*" (2.092; App. 3)

Editors needed proof that they have done the editing because the proof is a crucial part in the payment system, whereby without the proof, payment could not be processed. Editors do not see the prospect of automation could produce such proofs as the conventional.

> "*If we do online editing, there will be no proof that we have done it. Manually, you could see the proofs on paper.*" (2.093; App. 3)

Most of the editors with preferences on the conventional editing are the senior ones who have spend most of their life in the Company doing the editing on paper.

> "*… even though they have been given courses on onscreen editing, only a few editors do it. Most, especially the senior ones, they are so used and still edit the conventional way (on paper)*" (2.094; App. 3)

iii. Issues on e-publishing

Editors feel that the issue in e-publishing is the degenerating of the physical book, replaced by the e-book. POD[36] books, though cheaper to produce has become a secondary by-product and the production of the POD books is in a quality less than the original physical book.

[36] Print on demand

> *"In Multimedia, it will only be one, only the e-book. If there is a special requirement, even though it has been published online, we will POD it. If there is a demand for the hard copy, we will ask the Company to POD it."* (2.095; App. 3)

Editors are also aware that there will be access rights for the e-book. Nevertheless, they are also aware that the online payment system has not been established yet in DBP.

> "*And then to access the materials, he may have to pay for a charge. The amount will be determined by DBP.*" (2.096; App. 3)

Issues conforming to standard and quality of product have been confirmed with respect to e-transformation. In the wake of that, two types of quality related issues emerged, time related quality and editorial related quality. In standards, there are issues in measurement and quantification of performance and product. Issues in work related areas become apparent in the areas of work culture, work procedure, work schedule and workload. Issues in work schedule transpired two different thoughts, flexibility of schedule and conforming to old orders in new medium. Issues on editors emanated the attitude problems, creative work, editing and e-publishing. Accordingly, issues in creative work relates to the development of skills in editorial ship and authorship, while issues on editing derived uncertainty over both types of editing; on paper and on screen. Issues on e-publishing consequently derived more issues in the e-book production.

5.4.3 ***Proposition 3:*** *To Explore and Understand System Implementation Issues (Editor's Experience with SPMP, Management) and Future System (Transparency, Human Factors, Contractors, Workload, Authority)*

5.4.3.1 ***The SPMP issues***

i. The SPMP- *overview*

The NADI project was executed when the then Minister of Education commented on the lack of higher learning books in the Malay language. With

this came the responsibility of Dewan Bahasa and Pustaka to ensure the production of as many books possible. The history of SPMP started in 1985 when a lone Project Manager, while overseeing the NADI project, proposed a database system to capture data on book production. The NADI project was a highly aggressive publishing strategy to publish 100 translated higher learning titles annually. Part of the duty of the Manager was to report to the CEO and Board of Directors. He was occasionally requested to provide reports, data and statistics on these books to the Board of Directors. Chapter 1 on Introduction gives an overview on the roles of the Board of Directors. Finding it difficult to provide the needed data every now and again the manager proposed the SPMP system. The system was approved due to the high profile NADI project with an initial grant from DBP totalling RM100 000. [37]*Sepakat*, a private IT Company was contracted to develop the SPMP. It was initially proposed to solve a lone manager's problem.

The system used to create SPMP is ORACLE Version 7.1, with Designer 2000 to develop the database and Developer 2000 Form 4.5/Report 2.5 to create Forms and Reports. This system runs in Windows Operating System. Developer 2000 creates forms and reports based on tables created with Designer 2000. Meanwhile, Developer 2000 allows the developer to design and customise the forms and reports and adds functionality like radio buttons, combo boxes and list of values to make the forms and reports more user-friendly. It also allows the developer to write triggers on the objects to add functionality to them and capture errors.

The Developer 2000 provides 4 tools:

1. *Object Navigator* - used to view all the objects, add new ones and name or rename them.

2. *Layout Editor* - helps in designing the forms and reports and adds various objects to them like push buttons and list boxes

[37] Lack of knowledge in certain areas prompted the Company to contract specialised job to a private company

3. *PL/SQL Editor* - is used to write all codes for the triggers, procedures or functions

4. *Menu Editor* - is to help create a customised menu that could be attached to the form or report.

The main functions of the SPMP are as follows (according to the statement printed on the handbook):

1. To record the information on books, magazines, corporate materials and information related to the publication of a title published by DBP;

2. To provide up to date information on the progress, yields and the standard of publishing work for a title to enable the management team to plan publication work using this system;

3. To provide information on the status of publication work for a title to enable the management team to monitor publication work and ensure that the publication could be completed within the agreed period.

ii. SPMP system guidelines

This guideline is one of four documents produced by the contactor that built the system. Its function is to facilitate the use and handling of SPMP. The other 3 documents, which, one is on system design, is kept only by the developer and is not available in the organisation.

Most of the users (editors/clerks) were equipped with computers in 2005. Prior to that, only the head of divisions and senior editors has access to computers. It took the Company almost 10 years to fully equip the users with computers since the implementation of SPMP; the more reason people are not using the system.

iii. Using the manual

Information contained in this guideline is to be the reference by the computer unit and users having the skills in the maintenance work of computer system.

iv. System organisation and function

Generally, the SPMP is divided into 7 sections, which consists of the following:

1. Registration
2. Entry/Edit
3. Inquiry (checking)
4. Report
5. Reference Files
6. Work Management
7. Utilities

v. The SPMP issues

When the editors were asked their opinion on the system, all the respondents gave very negative answers.

> "*That system is sooooo… rigid!*." (Stressing her displeasures). (2.102; App. 3)
>
> "*Not friendly."* (And showing a big frown) (2.103; App. 3)
>
> "*This system is a heartache."* (Putting her thumb down). (2.104; App. 3)
>
> "*… problems even logging into it." (*2.105; App. 3)
>
> "*… when I first joined DBP, the system has long been abandoned*." (2.106; App. 3)
>
> "*The manual if I want to use it, it is no use*." (2.107; App. 3)
>
> "*… without the SPMP we still produce our product." (*2.108; App. 3)

The SPMP is a failed invention by the Company to introduce automation in their work system. Nevertheless, the experience of using and developing it should be used as a basis to build another working system.

5.4.3.2 Experience issues

i. Dissatisfaction

Dissatisfaction in this context is described as the act of discontentment and disapproval of a person, a process or a system. Though agreeing that the purpose of SPMP is good, editors are still dissatisfied with the system.

> "*The purpose is good but it is not user friendly. Good purpose should be accompanied with user-friendliness." (*2.109; App. 3)

Editors are dissatisfied by the way training is conducted with regards to SPMP.

> "*... there is no talk on SPMP in terms of how to use it for those who has not used it, or maybe on what else should be done because there maybe new development. These things should be told to us so that everybody could use it and no one is left out...." (*2.110; App. 3)

The unfriendliness of SPMP is also in approval with the management team, which is quite interesting and it explains why the management do not use the system as well. Though, approving to this, nothing was done to improve the situation.

> "*They did install it for us but we do not use the system. Because, according to the boss, the SPMP could not do things, he said that because the system is not friendly." (*2.111; App.3)

Even the people involved with ensuring the usage of the system admit the unfriendliness of the system. Most blame the Computer Division for inefficiency and lack of credibility.

> "*I happened to be the coordinator for SPMP for this Division but whenever we came out with problems of the SPMP, what they will say is they will look into it." (*2.112; App. 3)

ii. Frustration

Frustration is often displayed in showing annoyance, a setback, the feeling of being letdown, of resentment over non-fulfilment or non-successful tasks.

> "*While doing this editorial work, sometimes we need to make reports, it could be parliamentary report, unit report but we still could not use the system, it is so very unfriendly." (*2.113; App. 3)

Not only that the system is difficult to master, and editors not only frustrated with the system but also the manual of reference accompanying it.

> "*I do not understand it; I have to learn it several times*." (2.114; App. 3)

iii. Incompetence

Incompetence is the disablement of the system to perform up to its required standard or the condition of being unable to perform effectively, the shortcomings or unfitness of a system, person or task. The editors find the system not flexible.

> "*Our planning is sometimes, well … sometimes we need to be flexible, we need to move forward and we need to look backwards. So with the SPMP, that is what it could not do." (*2.115; App. 3)

The system has so many shortcomings that it became a disappointing and turned into a difficult task doing their work using the system.

> "*… and if we shift from one window to another window, it could not do it, if it had performed like a web-based system, we could have all the links and not waste our time to open and close the windows every time." (*2.116; App. 3)

The SPMP needs to be fed with data at every stage and every time for every project by every editor or person associated with each stage. Without these data, the system fails. These data could only be entered once the stage is completed. With too many other tasks to do, editors and other personnel find the system a burden which is not directly associated with their real task.

> "*... if we do our work online or manually, we need to complete the work then only we could enter the data. If we have sent our manuscripts to the printer, we said in the system we have sent it for printing. It means that we have to enter the data many times, log into the system repeatedly and finally people just forget to do that. When the system needs to be updated, it became very difficult." (*2.117; App. 3)

iv. Unreliable

Unreliable is being unconvincing, undependable, unsound and untrustworthy. The unreliabilities extend from system to support, management to editors.

> "*I think it does not provide enough support for the editors. If there is no SPMP, we could still do our work. We will still have our ISO system, we have our records." (*2.118; App. 3)

> "*Sometimes in the project file, these data are not complete, some detailed information on the manuscript were not entered.*" (2.119; App. 3)

5.4.3.3 Future systems

Interviewees were also asked on their perception of the future ideal system that they would like to have implemented in DBP. Much of what is said has a lot to do with their previous experiences of using the SPMP.

i. Awareness

Many editors are aware of what they would like in a system for them. Awareness of this refers to the recognition of the system that they inspired, the realisation of the benefits that it would bring, the consciousness that it would change the work style, and also having prior knowledge on what the system could do.

> "*So to increase product is no longer a big issue but market is also important nowadays, so we are moving towards market oriented and we have a lot of competitors as friends with the same aim of disseminating literature and language, we need to move with the same inertia as them." (*2.120; App. 3)

ii. Commitment

Commitment plays an important part in ensuring the successful deployment of a system and in this case, commitment means a reference to a duty that has to be undertaken, engagement in the tasks and liability or obligation to undertake that tasks by someone or over something.

> "*If the Department does not give us the support, so we are like, … we do it on ourselves, and others do not. It is such a waste, it is a new thing and people do not want to apply it in their work." (*2.121; App. 3)

The editors feel that the management team should start by promoting their commitment towards the system and also towards the whole operations.

> "*For this automation, one is for the management. The management side of it is on progress, statistics and reports. If anyone calls them to know on statistics, they already knew up until who the editor is. They also need to use it then only they will know about the system. It will be part of the work process. So, one is on management of publication and the other is on the process itself. The top management is more on the management of publications." (*2.123; App. 3)

Nonetheless, editors also feel that the employees of DBP should also be aware that they have a role to play in being committed not only to them, but also to the tasks they have to undertake.

> "*… employees will have to be well verse…." (*2.124; App. 3)

iii. Communication

Communications in DBP has always been by word of mouth and in the more official form, by way of letters. Therefore, communication in this contact refers to the contact from one person to another in the form of conversation or correspondence. Changing form of communication by way of automation has not been well accepted by the editors.

> "*… what we know Dewan is now, the top management only mentioned about automation, e-government but the reality is, we do not need letters anymore. Communication via the e-mail is more than enough. But, when we communicate via the e-mail, it is as if there is no communication at all." (*2.125; App. 3)

iv. Expertise

Expertise is the skills and knowledge needed to foster the development and success of a system or self. Editors feel that expertise should be available in all levels in DBP and the expertise should be in accordance with each different level of workers. These should include the top management;

> "*…the top management themselves are not from the generation who are used to computers. That is why a change is difficult for them." (*2.126; App. 3)

The editors;

> "*We need skills and editors need to be equipped with knowledge on production, software and work procedure." (*2.127; App. 3)

And designers of the system as well as those involved with the system development.

> "*… they just call the selected company that Dewan has given. OK…since the company cater for that (the whole development). OK, you do it all, they do not even know in depth about maintaining the system, so if there are anything wrong with it, they will just call the company*." (2.128; App. 3)

v. Security

Security in this study is pertaining to the protection of the property, the guard employed to ensure the security, the guarantee and assurance that the intellectual property will be secured and protected.

> "*That depends on the type of data but if it is only books, there is no problem. And or files, we could categorised them. Between the editors and the production line, we need to categorise them too, for example there will be read only or read and comment, you do not need to amend it." (*2.129; App. 3)

While security is still a major issue in DBP,

> "*… when we already have our own password we could not access other people's data or system, but ours can*." (2.130; App. 3)

vi. Technology

Since 2004, all editors in DBP were equipped with their own password protected personal computer. Editors agree that the equipment will further facilitate their work.

> "*… everyone of us is given a PC and that makes things easy*." (2.131; App. 3)

These editors are very optimistic that the technology provides, if tailored to their needs will definitely help with their work.

> "*No, there will be no problems. These will all depend on the technology. If the technology is there, we will appreciate it very much*." (2.132; App. 3)

However, there are also editors who foresee the need for an independent system which is secure.

> "*I think to fully automate we need to take into consideration several things. The first, the server that we are going to use should be independent. For publishing, there is a server on publishing which others could not interfere with and the outsiders could not access it. This will be only for the publishing*." (2.134; App. 3)

vii. Training

The Company has its own Training Unit. The function of the training Unit is to train the staff to acquire skills in their work area and to gain adequate expertise equivalent to their own level of work. In the case of system training, staff are either trained in house by the computer unit staff or by external trainer or the staff is trained at the trainer's studio or school of training. In the context of SPMP, staffs were trained in house by the computer staff, more like a coaching process.

> "*If we were taught, easy to catch up and friendly operation, I think it is going to be okay."* (2.135; App. 3)

In DBP new editors train to edit on paper. No training was conducted using the system or onscreen editing. The editing skills was developed by way of hardcopy editing.

> "*... right from the start when we joined this organisation we were trained to edit on paper. I do not know why, it is too subjective and there are no data on that yet.*" (2.136; App. 3)

The issues on SPMP thenceforth resulted in dissatisfaction, frustration, incompetence and unreliability, which should set forth areas to be rectified in future system development. As such this also includes issues on awareness, commitment, communication, expertise, security, technology and training.

5.5 Conclusion

The preliminary findings are used to determine the exact boundaries of the research. The textbook division has been excluded in the research due to its' special consequences that do not run in line with other publishing divisions and also because it contradicts with other standard procedures of the publishing department. The relationships among the variables will further be discussed in the next chapter and so are the online SPMP system which a large part of it is dedicated to the editors and the editorial phase. The structure of the organisation will be scrutinized further. The efficiency of an online system will

be discussed in the following chapter. Researcher ruled out financial problem due to its government controlled nature. The relationships among and between the nodes will be further analysed in the following chapter.

In e-transformation in the editorial phase the issues are;

i. Automation related, which are negative perception and scepticism;

ii. Management issues which includes the management team, authority and government effects;

iii. Issues related to human factors which are diffidence, distrustful and indifference;

iv. System development issues which includes the development of systems, computer division, contract and contractors;

v. Issues in standard and quality;

vi. Work related issues which are work culture, work procedure, work schedule and workload;

vii. Issues on editors, which are the editors, creative work, editing and e-publishing;

viii. System implementation issues, which includes the SPMP issues and experience issues (dissatisfaction, frustration, incompetence and unreliable); and

ix. Research also confirmed several requirements from the perspective of editors that should be taken into account in the development of future systems which are awareness, commitment, communication, expertise, security, training and technology.

Chapter 6 Data Analysis

This Chapter discusses in more detail the findings of the research as has been presented in the previous Chapters and revisiting the conceptual model, Figure 6.1 as a guide to focus the discussion. This Chapter goes further by analysing links between attributes, and issues that are related are determined and discussed to uncover the finer values and substances of the situation.

Revisiting the propositions:

4. To further explore and understand the HITEC issues (human factors, information, trust, expertise and confidence) in e-transformation and how or what affect does the issues brought towards the editorial phase.

5. To explore and understand the implications of e-transformation on the product (standard, quality), process (work procedure, work schedule, communication) and the editors (responsibilities, work load, commitment, training) in the editorial phase.

6. To explore and understand system implementation issues (editor's experience with SPMP, management) and future system (transparency, human factors, contractors, work load, authority).

6.1 Revisiting the Conceptual Model

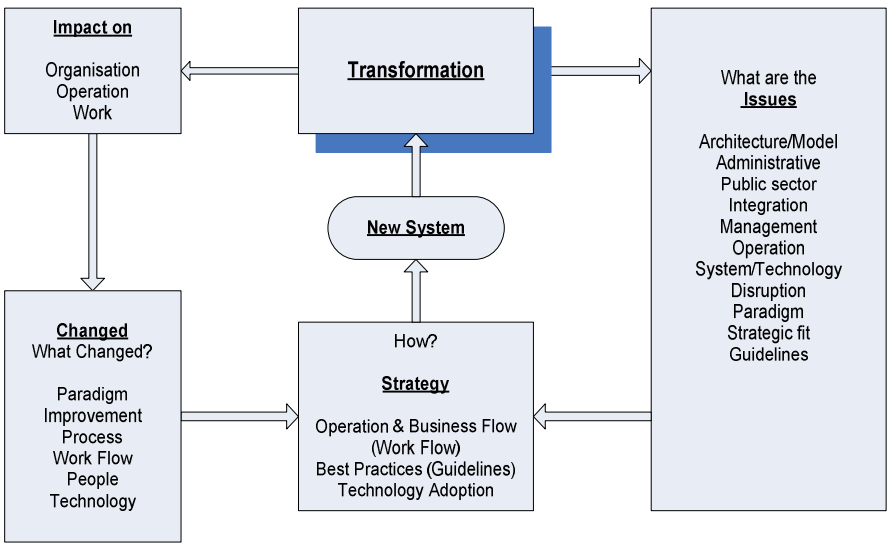


Figure 6.1 The conceptual model.

By incorporating the conceptual model, the findings from the focus study (Figure 6.2), and also "following the drawing of conclusions, the theory that enables the design of the case study may have to be adjusted as a result of the findings of the study" (Yin, 1994), the framework (Figure 6.3) was drawn as a refined framework of the research. In this framework, all issues, impacts and changes uncovered in the study were linked together and presented as a new framework that could be applied by the company in undergoing transformation.

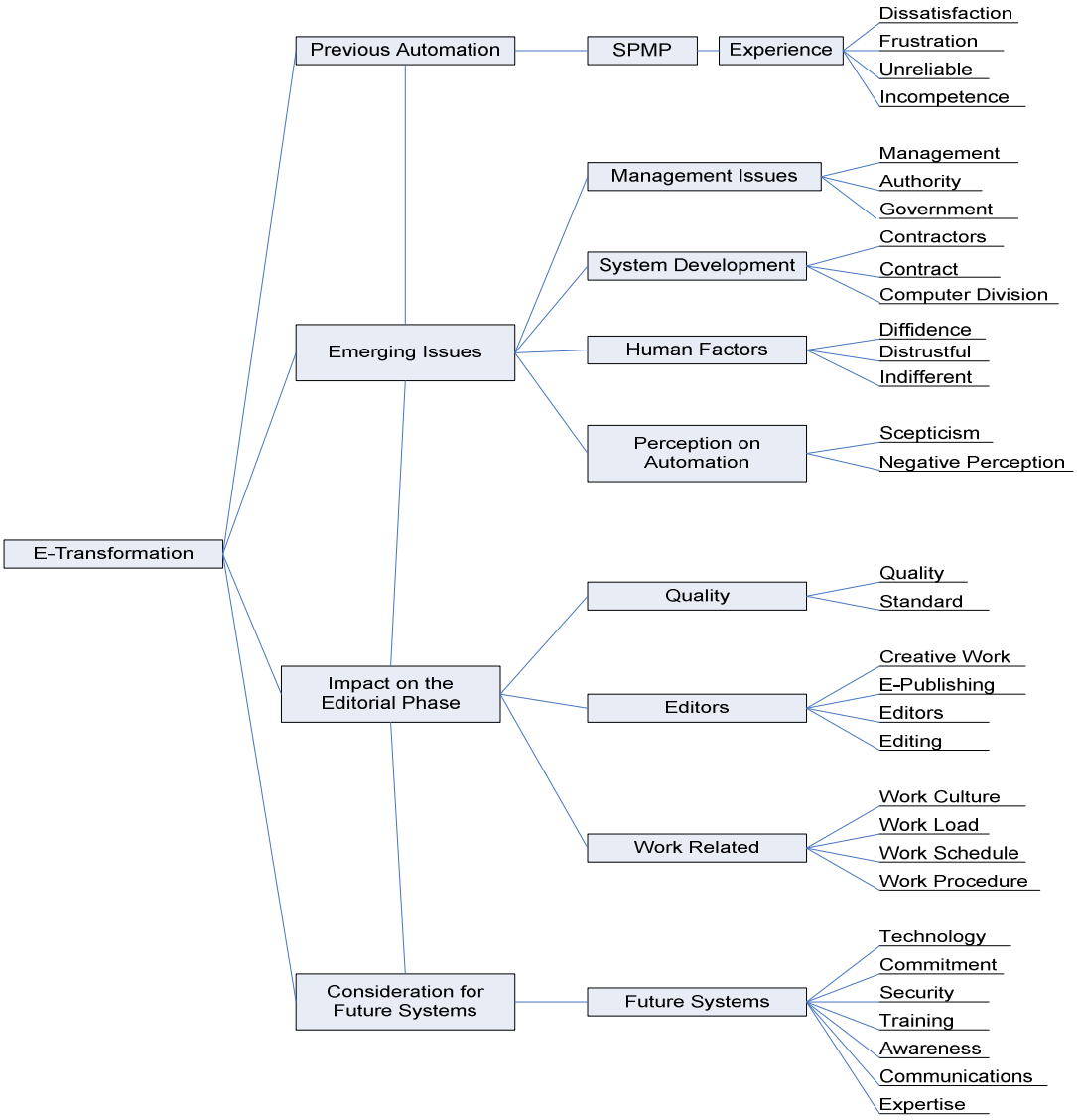


Figure 6.2 Revisiting the findings from focus study.

This stage of the research was designed to explore in greater detail the concepts from the conceptual model, to provide data for the analysis and theory building. The focus study produced a rich set of data in all the affected areas (issues, impact, change, future systems, strategies and previous experiences). From the analysis of the data, it was possible to develop the refined and final model. The result of the preliminary study led to the exploration of issues, impacts and changes, as well as strategies and experiences in the editorial phase. This also instigated a more focus literature review within these areas of transformation. Within the literature, great emphasis is placed on the strategies towards a new system within the domain of business transformation. Despite the identification of 3 main strategies in business transformation (guidelines, work flow, technology adoption), there was very little guidelines as to how these strategies fit into the domain of the public sector and knowledge work industry. The effects of previous systems implementation on transformation was also mentioned briefly in most of the literature and this study extended this issue and discovered how it became one of the important issues in business transformation in the publishing industry.

Figure 6.3 shows how the findings from the research support the conceptual model, where literature suggested issues on architecture, administrative, public sector, integration, management, operation, technology, disruption, paradigm, strategic fit and guidelines were the most common in business transformation.

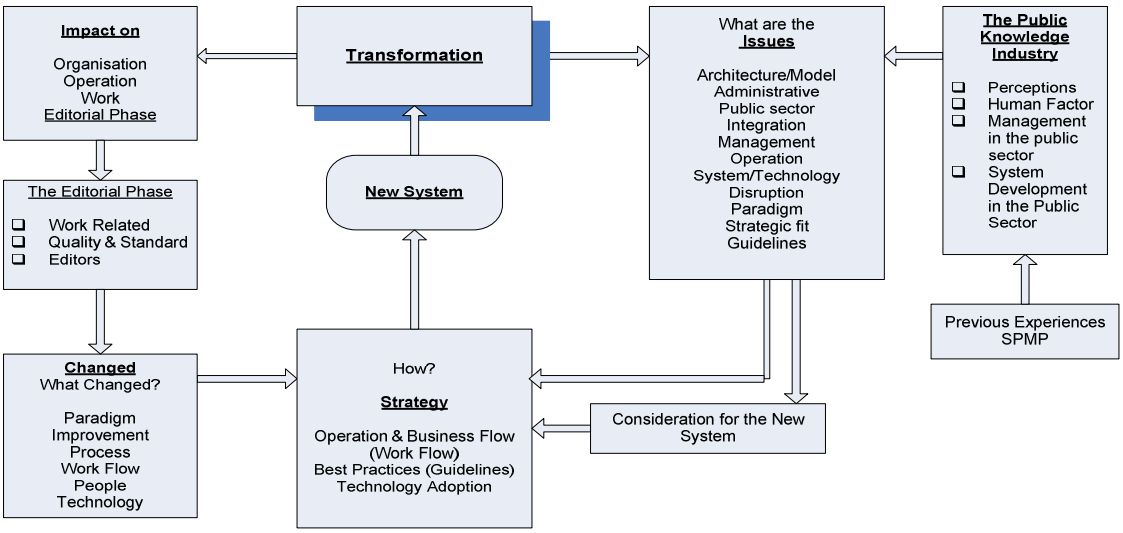


Figure 6.3 Refined framework.

However, in knowledge intensive phase like the editorial phase, this research contributes issues such as perceptions and human factors, and management and system development that are linked to the public sector. There are also contributing issues from previous experiences of using older systems, whereby it is not mention in the literature. While the global impact are on organisation, operation and work related areas, the main impact of this research is on the editorial phase which includes work related areas, quality and standard and the editors themselves. This Chapter will further discuss the issues, impact, changes and strategies associated with the transformation and identify the requirements of the new system from the perspective of the editors, as a consequence of understanding the issues derived from the previous system. The following discussion will embrace Figure 6.3 as a guide to focus the discussion and to draw the conclusions.

6.1.1 Operationalising the Business Model

Change in any organisation starts with the intention to transform. To e-transform, an organisation needs to understand that this means there are barriers to transformation and these issues need to be overcame and transformation too will bring forth impacts on certain areas of the organisation.

In the case of the publishing industry, particularly the editorial phase, there must be awareness that transformation will unquestionably impact the editorial phase since it is the core process in a chain of value processes before the start of prepress in the publishing industry. By transforming the core processes, there are issues that need to be understood and overcome before transformation could further progress. These issues includes human factors affected by the transformation, the issues of confidence is system and management, issues of trust, issues on available information, expertise in all areas affected by the transformation and for any publishing house that publishes text books, extra caution need to be taken especially if the production of these types of book is governed by strict deadlines in comparison with the more ordinary books, contractors, government policies and demands from stakeholders.

In addition to these issues, publishers will need to heed on the experience of the employees in using a previous system. Experiences in using a former different system could yield requirements for improvement and an understanding from the perspectives of the users. This could further be translated into system requirement aspects.

Besides issues that have to be understood and taken care of, publishers need to understand that transformation will impact certain areas of the industry, as early as the editorial phase, which starts from the acquisition of titles until the process of transfer to prepress. However, there is also a grey area of demarcation line between the editorial phase and associated mechanisms such as digital rights system, payment and pricing systems as well as the administrative wing. Some publishers see these as part of the editorial system while others feel that certain functions such as payments and pricing will be better controlled and managed in a separated mechanism from the editorial mechanism. Nonetheless, whatever the division or distinction of these associated systems are, publishers will need to understand that the main impact will be in the editorial related areas and it could flow through into other associated systems as well.

With these impacts, change is unavoidable. 3 main areas of change are noticeable in the editorial phase, change in the product, change in the process and change in the human aspects, especially the editors, the main players in the editorial phase. The product of the editorial phase is measured by its standard and quality, as well as the quantity, whether it is in soft copy or in hard copy. For well established publishing houses, standard and quality is very much related to branding, organisational values, national agendas and concern and customer satisfaction. However, the change from hard copy to soft copy and *vice versa* will be reflected in the standard and quality of the product, and the change of standard while retaining or improving the quality of product (change) will give an implication to both hard copy and softcopy.

Change in process affects the work procedure, work schedule and communication between players in the editorial phase, between editors and authors and other associate members in the mechanism.

Change in the human aspect, the editors, will affect their responsibilities, their work load, their commitment and will involve training of affected people in the transformation.

To overcome the hindrances towards a successful transformation, publishing houses needs to formulate, implement and monitor strategies. A move to a new developed system will be successful when the aspects of issues, impacts and changes are overcame using specific strategies tailored for the publishing industry.

6.2 Association of Variables

Table 6.1 shows the related variables, the propositions and the research objectives, where, P1 (referring to Proposition 1) answers Research Objective 1 (RO1) and Research Questions 1-3 (RQ 1-3), P2 (referring to Proposition 2) answers Research Objective 1 (RO1) and Research Questions 4-5 (RQ 4-5), and P3 (referring to Proposition 3) answers Research Objective 2 (RO2) and Research Questions 6 (RQ 6). These data were derived from the matrix coding analysis using NVivo 7. For example, Proposition 1, which concerns the issues

on human factors, diffidence, trust and expertise is linked to Research Objective 1; identifying the issues in e-transformation in the publishing industry. This in turn will answer Research Questions 1-3, on issues (RQ1), changes (RQ2) and implications (RQ3) occurring in the editorial phase.

Table 6.1 Relationship between selected categories.

Versus	SPMP	Experiences-Dissatisfaction	Experiences-Unreliable	Experiences-Incompetence	Experiences-Frustration	HF-Distrustful	HF-Diffidence	HF-Indifferent	Human Factor	Automation	Negative	Sceptical	Management	Authority	SD-Contract	SD-Contractors	SD-Comp. Div.	Workload	Work Schedule	Work Procedure	Work Culture	Standard	Quality	Editors	Editing	E-publishing	Creative Work	FS-Commitment	FS-Technology	FS-Security	FS-Awareness	FS-Training	FS-Expertise
SPMP	P3	P3	P3	P3	P3					P3																						
Experiences-Dissatisfaction	P3	P3	P3	P3	P3					P3																						
Experiences-Unreliable	P3	P3	P3	P3	P3					P3																						
Experiences-Incompetence	P3	P3	P3	P3	P3					P3																						
Experiences-Frustration	P3	P3	P3	P3	P3					P3																						
HF-Distrustful										P1	P1	P1	P1	P1	P1	P1	P1															
HF-Diffidence										P1	P1	P1	P1	P1	P1	P1	P1															
HF-Indifferent										P1	P1	P1	P1	P1	P1	P1	P1															
Human Factor										P1	P1	P1	P1	P1	P1	P1	P1															
Automation						P1	P1	P1	P1				P1	P1	P1	P1	P1															
Negative						P1	P1	P1	P1				P1	P1	P1	P1	P1															
Sceptical						P1	P1	P1	P1				P1	P1	P1	P1	P1															
Management						P1	P1	P1	P1	P1	P1	P1			P1	P1	P1	P1	P1	P1	P1	P1	P1	P1	P1	P1	P1					
Authority						P1	P1	P1	P1	P1	P1	P1			P1	P1	P1	P1	P1	P1	P1	P1	P1	P1	P1	P1	P1					
Government						P1	P1	P1	P1	P1	P1	P1			P1	P1	P1	P1	P1	P1	P1	P1	P1	P1	P1	P1	P1					
SD-Contract						P1	P1	P1	P1	P1	P1	P1	P1	P1				P1	P1	P1	P1	P1	P1	P1	P1	P1	P1					
SD-Contractors						P1	P1	P1	P1	P1	P1	P1	P1	P1				P1	P1	P1	P1	P1	P1	P1	P1	P1	P1					
SD-Comp. Div.						P1	P1	P1	P1	P1	P1	P1	P1	P1				P1	P1	P1	P1	P1	P1	P1	P1	P1	P1					

Continue to the next page

Versus	SPMP	Experiences-Dissatisfaction	Experiences-Unreliable	Experiences-Incompetence	Experiences-Frustration	HF-Distrustful	HF-Diffidence	HF-Indifferent	Human Factor	Automation	Negative	Sceptical	Management	Authority	SD-Contract	SD-Contractors	SD-Comp. Div.	Workload	Work Schedule	Work Procedure	Work Culture	Standard	Quality	Editors	Editing	E-publishing	Creative Work	FS-Commitment	FS-Technology	FS-Security	FS-Awareness	FS-Training	FS-Expertise
Workload						P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2					P2	P2									
Work Schedule						P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2					P2	P2									
Work Procedure						P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2					P2	P2									
Work Culture						P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2					P2	P2									
Standard										P2	P2	P2	P2	P2	P2	P2	P2															
Quality										P2	P2	P2	P2	P2	P2	P2	P2															
Editors	P2	P2	P2	P2	P2	P2	P2	P2	P2				P2	P2	P2	P2	P2															
Editing	P2	P2	P2	P2	P2	P2	P2	P2	P2				P2	P2	P2	P2	P2															
E-publishing	P2	P2	P2	P2	P2	P2	P2	P2	P2				P2	P2	P2	P2	P2															
Creative Work	P2	P2	P2	P2	P2	P2	P2	P2	P2				P2	P2	P2	P2	P2															
FS-Commitment																		P3	P3	P3	P3	P3	P3	P3	P3	P3	P3					
FS-Technology																		P3	P3	P3	P3	P3	P3	P3	P3	P3	P3					
FS-Security																		P3	P3	P3	P3	P3	P3	P3	P3	P3	P3					
FS-Awareness																		P3	P3	P3	P3	P3	P3	P3	P3	P3	P3					
FS-Training																		P3	P3	P3	P3	P3	P3	P3	P3	P3	P3					
FS-Expertise																		P3	P3	P3	P3	P3	P3	P3	P3	P3	P3					

Legend

P1 – Proposition 1 P2 – Proposition 2 P3 – Proposition 3	FS - Future System HF - Human Factor SD – System Development		

6.3 Past Experiences with SPMP and its' Effect on Transformation

Figure 6.4 shows the variables on the impact of transformation on quality and standard in knowledge intensive products in the editorial phase. Meanwhile, Table 6.2 shows the related variables and proposition designed in the earlier Chapter.

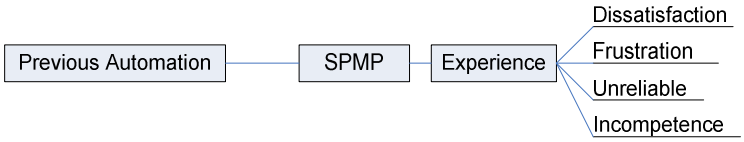


Figure 6.4 Variables on the effect of SPMP and past experiences on transformation.

Table 6.2 Extracted from Table 6.1, illustrating the related variables and proposition.

Versus	SPMP	Experiences-Dissatisfaction	Experiences-Unreliable	Experiences-Incompetence	Experiences-Frustration	HF-Distrustful	HF-Diffidence	HF-Indifferent	Human Factor	Automation	Negative
SPMP	P3	P3	P3	P3	P3					P3	
Experiences-Dissatisfaction	P3	P3	P3	P3	P3					P3	
Experiences-Unreliable	P3	P3	P3	P3	P3					P3	
Experiences-Incompetence	P3	P3	P3	P3	P3					P3	
Experiences-Frustration	P3	P3	P3	P3	P3					P3	

Based on previous failed systems, editors have negative perceptions and are sceptical on future implementation projects. This is supported by the literature whereby, people's past and ongoing affective experiences (emotions, moods and other subjective states like pleasure and pain, liking and disliking, hope and dread) guide their decisions about the future. We seek to repeat in the future, what we have liked or enjoyed in the past, and avoid or dread further experiences with what we have disliked or found aversive (Frederickson, 2000). Hence, when editors were posed with the probability of automating their entire work system, the decision to embrace the concept was based on the prospect of what new technology could bring but at the same time, past experiences of using the SPMP

and of being in the Company for many years, witnessing failures of implementation projects, cultivated scepticism and negative perception on the automation project. According to Martinsons & Chong (1999), post implementation reviews, which evaluate IS performances, should also incorporate relevant behavioural dimensions, which will be needed to implement new ones. Valcour (2002) reported that experiences offer insights into our understanding of the situations managers face when seeking to open up opportunities for new ways of working within established organisations. Table 6.3 shows the relationships between past experiences and transformation, which is derived from matrix coding using NVivo 7. There were 5 responses on dissatisfaction in automation, 3 responses on automation, 2 on incompetence and 5 responses on unreliability of system.

Table 6.3 Relationships between experiences in transformation and automation.

	Dissatisfaction	Frustration	Incompetence	Unreliable
Automation	5	3	2	5

In the context of the Company, being a public sector and government-owned, we would have to look back at the history and successes of e-government in Malaysia, to relate the approach to automation with the failures of many implemented systems. In this way, the four issues in Table 6.3 could be better understood.

The Malaysian Public Services Network developed in the early 1990's was a first venture into a networked electronic service. The Postal Services and *Permodalan Nasional Berhad*, the Government investment institution, were given access to databases owned by the Government to provide services to citizens and businesses. In 1996, the Malaysian Super Corridor was launched, to provide the opportunity to shift to electronic government. This is a dedicated 15 x 50 km corridor stretching from the Petronas Twin Towers in the north and the Kuala Lumpur International Airport in the south. It encompasses Cyberjaya (The

Technical Core) and Putrajaya (the new administrative capital of Malaysia). By 2003, Malaysia ranked 26th. in the world in network readiness. One flagship application proposed was the Multipurpose Card. The card, embedded with a microprocessor, incorporating the use of chip card technology and biometrics verifications finally materialised in 2002 with 4 government applications and 4 payment applications. To date Malaysians have yet to fully use the facilities provided by the smart card. MyKad was supposed to incorporate the identity card, bank card, medical history card and other public services data. Though the use of MyKad has been enforced since 2002, it is beleaguered with fraud and identity theft for the past years since its' introduction. The reported lost of MyKad cards in 2002 are 402,566, 387,733 in 2003, 243,562 in 2004 and in 2005, as many as 393,389 were reported lost, and from January until July 2006, 232,980 MyKad were reported missing (*Utusan Malaysia*, 14th. September, 2006).

Pursuant to this the Chief Police of Malaysia, disclosed cases of residents selling their MyKad to immigrants, and reapplying for new one from the Public Services Department, since there is only a minimal fee to be paid to get a new one and no penalty imposed for losing it. With this scenario in Malaysia, editors are always facing news on failures of electronic systems, at organisation and the government level.

It was also in 2002 that e-book publishing in Malaysia started to take off. The idea of Smart Schools, also proposed as one of the flagship applications was based on the National Education Philosophy and inline with the Integrated Primary and Secondary Curriculum (Abdul Karim & Khalid, 2003). Electronic publishing answer productive and timely production of reading materials (Daut Mohmud & Sackett, 2003), supporting the smart schools.

For DBP, the production house is owned by the Government where it is characterised by the political market that approves budgets and provide subsidies. DBP generates its' own income but the Government finances its' emolument and infrastructure. However, policy wise, it will be tabled in the Cabinet and decided by the Government. Heretofore, DBP has never produced e-

textbooks, supposed to be required by the Smart Schools, or involved in the implementation of the initiative. Under the scheme of 'social obligation', managers find it difficult to develop services with real growth potential or generate surpluses to be reinvested. Managers are not trained to be business minded or cost effective and efficient. Corporate parents buffer the executives in businesses from the realities of financial markets (Abdul Karim & Khalid, 2003), executives are not truly answerable for the performance of their business, nor given incentives for driving the business or services forward. Promotions to key positions may be judged on the duration of services with less consideration on individual performance or paper qualifications. Only in 2005, Rule 37, Rules on Public Officers (Promotion and Termination) emphasised the merit of government officers to be evaluated based on performance, but since the methods adopted for more than 20 years were not based on that, the National Chief Secretary made a statement on 13 October 2006 (*Utusan Malaysia*, 2006), to adopt the said Rule. There is no one credible method or reward system in DBP of justifying the performance of editors or the performance of this type of creative work.

Nevertheless, from between 1990 and 1996, The Malaysian Translators' Association rewarded editors on 3 occasions based on the quality of translated books. Though the system has flaws and needs reviewing, it was still an attempt that should be taken into account in rewarding editors and in pursuit of the perfect editors. Nonetheless, funding became an issue and the reward was stopped in 1996. With no non-government association to back the editors up, there is no attempt to recognise credible editors.

Thus, the failure of a system and the investment over hundred thousands of Ringgits[38] or even millions, has never dampened the spirit of the public sectors to embark on to another project since no one is ever held responsible for failures in the Government sector. Therefore, the failure of system developments in DBP is just another failed project in the lives of these editors, and whenever a new one is proposed and developed, editors are not only sceptical and have negative

[38] The Malaysian Currency

perceptions but they also feel dissatisfied by the way they are being made the guinea pigs, frustrated on the outcomes and the way things are not handled systematically. They feel that the incompetence and unreliability of the whole DBP system is the work style of DBP.

6.3.1 Performance of DBP after SPMP

With respect to its objectives, the SPMP failed to perform. An interview with the system analyst (unrecorded due to request) revealed that despite all the bad receptions and reputation, it is still being upgraded and maintained even though no one is using the system. The company that developed it is still under contract to maintain the system.

6.4 Addressing Research Objective 1; Research Question 1

What are the issues in e-transformation in the editorial phase?

Figure 6.5 shows the emerging issues in the editorial phase. To understand more about these issues and relationships among them, a matrix coding is conducted among the variables and further discussion entails.

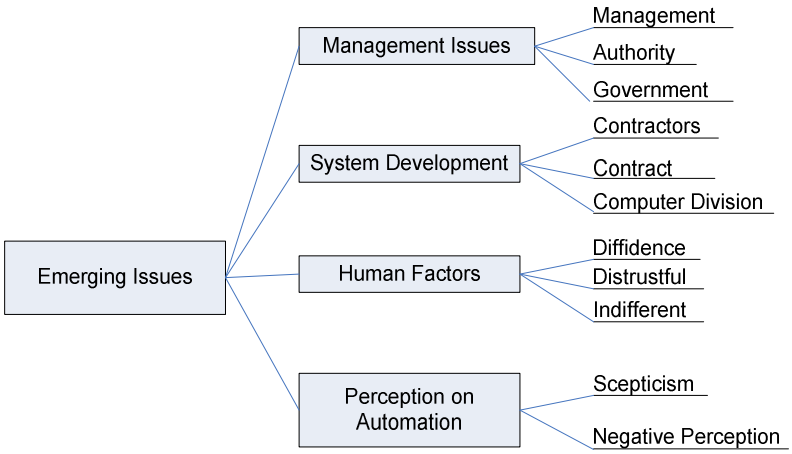


Figure 6.5 Emerging issues in the editorial phase.

Table 6.4 Extracted from Table 6.1, illustrating the related variables and the related proposition.

Versus	SPMP	Experiences-Dissatisfaction	Experiences-Unreliable	Experiences-Incompetence	Experiences-Frustration	HF-Distrustful	HF-Diffidence	HF-Indifferent	Human Factor	Automation	Negative	Sceptical	Management	Authority	SD-Contract	SD-Contractors	SD-Comp. Div.
SPMP	P3	P3	P3	P3	P3					P3							
Experiences-Dissatisfaction	P3	P3	P3	P3	P3					P3							
Experiences-Unreliable	P3	P3	P3	P3	P3					P3							
Experiences-Incompetence	P3	P3	P3	P3	P3					P3							
Experiences-Frustration	P3	P3	P3	P3	P3					P3							
HF-Distrustful										P1	P1	P1	P1	P1	P1	P1	P1
HF-Diffidence										P1	P1	P1	P1	P1	P1	P1	P1
HF-Indifferent										P1	P1	P1	P1	P1	P1	P1	P1
Human Factor										P1	P1	P1	P1	P1	P1	P1	P1
Automation						P1	P1	P1	P1				P1	P1	P1	P1	P1
Negative						P1	P1	P1	P1				P1	P1	P1	P1	P1
Sceptical						P1	P1	P1	P1				P1	P1	P1	P1	P1
Management						P1	P1	P1	P1	P1	P1	P1			P1	P1	P1
Authority						P1	P1	P1	P1	P1	P1	P1			P1	P1	P1
Government						P1	P1	P1	P1	P1	P1	P1			P1	P1	P1
SD-Contract						P1	P1	P1	P1	P1	P1	P1	P1	P1			
SD-Contractors						P1	P1	P1	P1	P1	P1	P1	P1	P1			
SD-Comp. Div.						P1	P1	P1	P1	P1	P1	P1	P1	P1			

Table 6.4 shows the variables in relation to the related proposition while Table 6.5 summarises the number of responses from the editors pertaining to the issues and relationships among them in e-transformation in the editorial phase, as shown in Figure 6.5. The following sections will discuss these issues among the variables.

Table 6.5 Issues in transformation in the editorial phase.

	Automation	Negative Perception	Sceptical	Human Factor	Diffidence	Distrustful	Indifferent	Management	Authority	Government	Comp. Div	Contract	Contractors
Diffidence	5	-	3	2	-	-	-	3	3	2	-	-	-
Distrustful	5	1	4	1	-	-	1	4	1	-	-	-	-
Indifferent	1	-	1	2	-	1	-	3	-	-	1	1	2
Comp. Div.	2	1	-	2	-	-	1	2	-	1	-	-	2
Contract	1	-	1	-	-	-	1	2	1	1	-	-	2
Contractors	4	-	5	2	-	-	2	5	-	1	2	2	-
Automation	2	2	7	5	5	5	1	8	5	2	2	1	4
Negative Perception	7	-	2	-	-	1	-	2	1	-	1	-	-
Sceptical	9		-	2	3	4	1	8	2	1	-	1	5
Management	8	2	8	3	3	4	3	-	3	3	2	2	5
Authority	5	1	2	-	3	1	-	3	-	2	-	1	-
Government	2	-	1	2	2	-	-	3	2	-	1	1	1

6.4.1 Management Issues

The Management issue in automation seem to be the most critical. The issues on management that have been mentioned in Chapter 5 includes issues on the management team themselves, authority and the government. Unhappiness over the handling and development of a project is rampant among editors. For this type of transformation project Carpenter *et al.* (2004) summarises a cross-section of upper echelon studies, from 1996 -2003, and some of the definitions of top management team are as listed in Table 6.6. Ahmed & Abdalla (2000) proposed a leadership model (Figure 6.6) that captured the personal characteristics influence and job influence of the CEO in the light of transformation.

Table 6.6 Upper echelon studies, definitions of the TMT (Top Management Team) (*from* Carpenter *et al.*, 2004).

Author (year)	**TMT definition**
Amason, 1996	Top managers involved in strategic decision making identified by the CEO
Hambrick *et al.*, 1996	All executives above vice president
Tushman & Rosenkopf, 1996	CEO and direct reports
Keck, 1997	Vice president and above
Reuber & Fischer, 1997	All members of the top management team
Bergh, 2001	All executives above the level of vice president, plus any officers not so classified who are members of the board of directors
Carpenter & Fredrickson, 2001	Top two tiers of an organisations' management
Geletkanycz & Black, 2001	Top executives
Ferrier, 2001	Chairman, vice chairman, CEO, president, CFO, and COO
Pitcher & Smith, 2001	Chairman/CEO and key division CEOs
Bertrand & Schoar, 2003	Top five highest paid executives
Kor, 2003	All inside top-level executives, including CEO, COO, business unit heads, and vice presidents

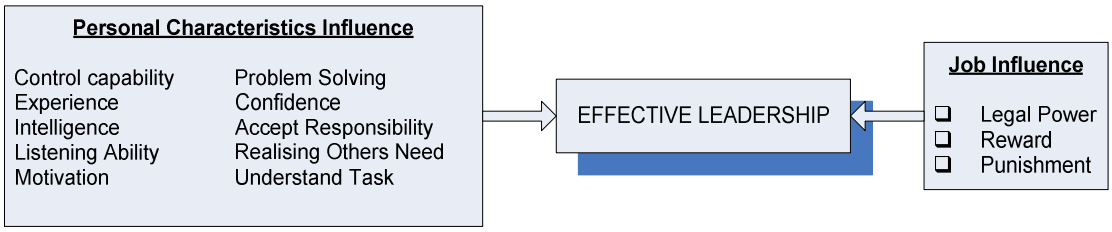


Figure 6.6 Leadership model from Ahmed & Abdalla (2000).

In the Government sector, the top management team in relation to this Company are as shown in Figure 6.7 and its' work procedure is as shown in Table 6.7. The Head of Units and Divisions make decision on matters in their own Division or Unit. The Heads approves budget of not more than RM25 000 at a time and any project which requires more financial support will need to be brought to the appropriate Director, who approves a budget of not more than RM50 000. The CEO could approve on the budget of between RM50 000 to RM 200 000 and anything above that will be brought up to the Board of Directors' Tender Approval meeting. Ultimately, the decision related to policy making will be decided on a political basis, even though the DBP Act permits DBP to champion its own legislations and policies. However, in reality these legislations and policies are limited to the running of day to day business.

According to Mansor & Ali, 1998 (*via* Lim, 2001) most Malaysian companies have a very formal system based on a Weberian-style[39] legal-rational model. The line of reporting is very clear and the formal relationship at work is very much maintained, which, according to Lim, leadership styles and decision making practices is autocratic and top-down.

[39] Preference for precision, reliability, discipline and bureaucracy.

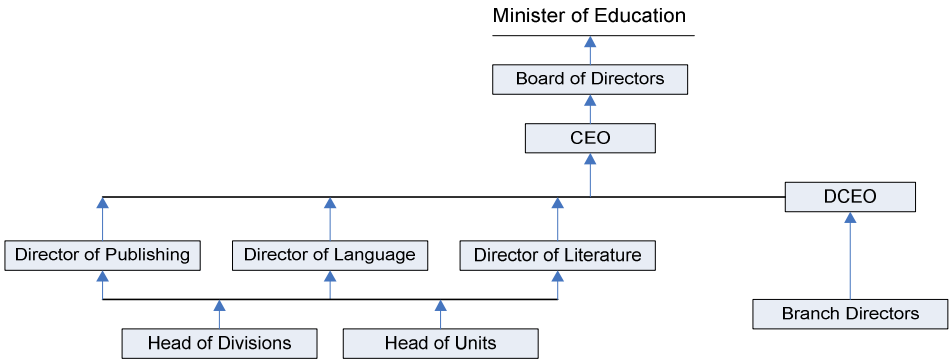


Figure 6.7 Top management team in DBP.

The following characteristics (Table 6.7) were extracted from the Work Procedure of the Head of Divisions.

Table 6.7 Characteristics of the Head of Divisions in DBP.

Work Procedure of The Head of Division
Leadership
Professional Responsibilities
Planning and Management Responsibilities
Relationship with External Parties

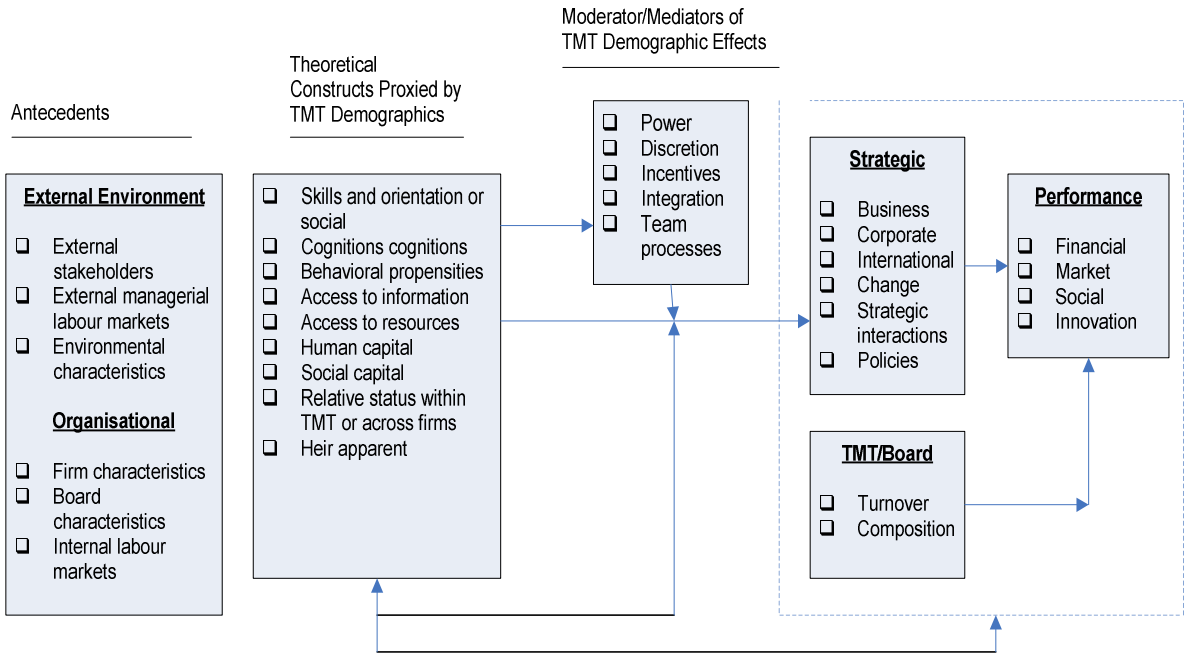
From the interview, the proposition of a change came from 2 different sources in the Company:

6.4.1.1 Ministry effect – top level

In the government agencies word from the ministers affecting their agency is taken very seriously, it is translated into the high-level orders or instructions. Statements of the Ministers could be in the form of speeches in official government or non-government functions, post cabinet meetings and direct orders from the Ministry itself. These orders will be picked up by the top-level managers in the Company and brought forward to the Board of Directors meeting and subsequently to the meetings of the Head of Departments, which will then passed down the line to individual divisions affected by the orders.

6.4.1.2. *Department effect (from the Head of Divisions) – lower level*

Change proposed from this level could be brought up by editors in individual division, meetings or conferences, seminars or any activities of its kind or proposition from the Head of Division on matters which are considered important. Such a scenario is as described in the Overview of the SPMP (page 152). This will then forwarded upwards in the departmental meeting or Management meeting, Board of Directors' meeting and ultimately to the Ministry level (if required). The level at which the matters are finally discussed and finalised depends on the amount of grant proposed. This is supported by Greenwood *et al.,* 2002 (*via* Goodrick, 2003), whereby transformation can also occur when powerful players in a field initiate changes serving their interests, (explaining the consummation of SPMP and other systems developed within each division's microcosm).



Legend: TMT –Top Management Team

Figure 6.8 Model of the upper echelons perspective (*from* Carpenter *et al.*, 2004).

Carpenter *et al.* (2004) described the upper echelons perspectives (Figure 6.8) where, change that leads to performance in innovation is all within the domain of the TMT. This is also related to the model developed by Papadakis & Bourantas (1998) (Figure 6.9) where technological innovation is directly linked to the CEO. In the circumstances of the TMT in the Company, it is noticeable that certain characteristics in the group are missing with respect to change and technological innovation, as claimed by the editors, such as skills, behaviour and personal characteristics that metaphors the effective leadership (Figure 6.9). Because of this deficiency among the top management team, this group became one of the main issues in e-transformation.

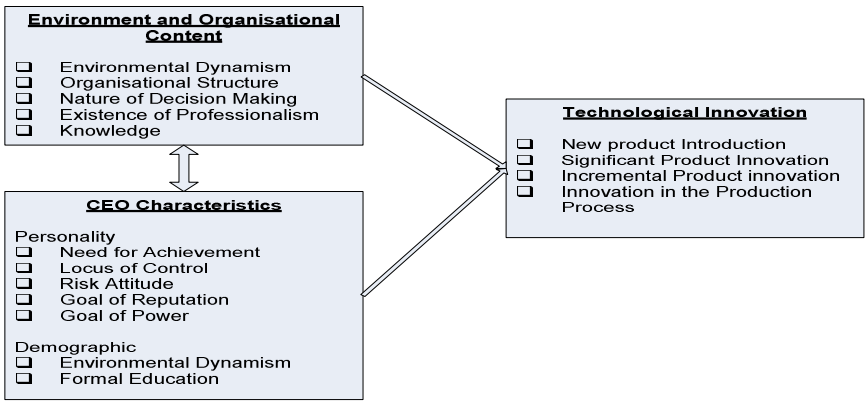


Figure 6.9 An integrated model of contextual and CEO influence on technological innovation (*from* Papadakis & Bourantas, 1998).

6.4.2 Human Factors

Figure 6.10 outlined an effective IS that consists of the right IT application to help the right people perform the right process. According to Martinsons & Chong (1999), an effective IS will improve performance, but IT applications that are poorly planned, developed or implemented can retard individual and/or group performance. This has been proven when an ill planned SPMP, developed and implemented unprofessionally, retard the performance of the system itself and if used will result in a shut off of the editorial processes involving the editors

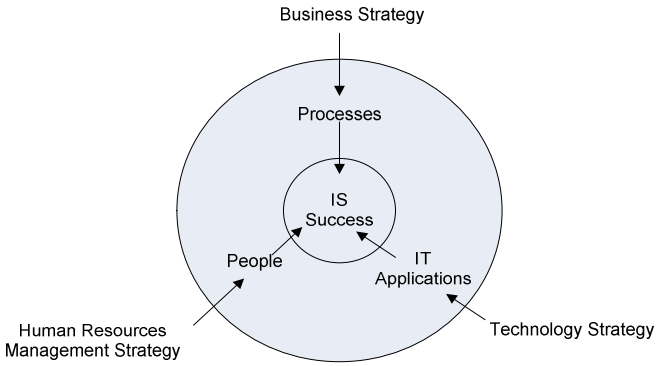


Figure 6.10 Aligning people, processes and technology (*from* Martinsons & Chong, 1999).

and the groups depending on it, since there were no synchronisation between the phases in SPMP. For example, when an editor filled in a data, there is no indication to the next step that they should be aware of what has been done and other actions should be taken. It does not represent the original process nor does it represents the data captured in the original form but it was built to serve that purpose. Martinsons & Chong (1999) reported that many IT applications fail to meet performance expectations due to human factors, which are contributed not only by the users but also by the developer and management and as a consequence, users tend to distrust the system, the implementation and organisation, which leads to them being diffident in the light of new encounters with systems.

6.4.3 Perceptions Issues

Researcher was able to interview the information system analyst in charge of the implementation of SPMP. The only reason given on why the editors shunned the SPMP is the changing of the mindset of the editors. It was claimed that the IT Division find it difficult to change the mindset of editors, to accept a new way of working, from what they are already accustomed with. Editors were looked at as a group of people who are stubborn in their work, passionate about the editing and refusing to adopt technology as an alternative to the manual way of working. However, interviews with the editors revealed a different view where editors

welcome the use of technology to assist their work but the nature of the system hindered the use. Nonetheless, the claims made by the Computer Division holds true, where research could conclude that perception, negatively projected, became one of the issues in the transformation.

6.4.4 System Development Issues

The NCC (National Computing Centre) in the UK recommended a methodology in system development in the 1970's, whereby it follows a 6 steps procedure; Feasibility Study; System Investigation; System Analysis; System Design; Implementation; Review and Maintenance (Avison & Fitzgerald, 1993). Departing from this, several other methodologies were designed, improved, tested and used. There are SSADM (Structured Systems Analysis and Design Methodology), JSD (Jackson System Development) and ISAC (Information Systems Work and Analysis of Changes Methodology), to name a few. The ISAC methodology is a problem oriented methodology and seeks to identify the fundamental causes of users' problems and known for its' people-oriented approach, whereby an information system that is thought to have no value in its own right and without benefiting people should not be developed. Therefore, DBP has many choices of methodologies to adopt in developing a system and the ISAC would seemed a good choice considering its' people-oriented nature, since the SPMP was developed based on a problem and when public money is invested in a development project. However, when the project was contracted to a non-public oriented company, much of the essence in the development of a public-oriented project was lost or not understood, where the users, the best people equipped to perform the analysis on the problem were not involved. The Company did not adopt a standard methodology in system development, or the Computing Division is not knowledgeable in system development, or the Management is guilty in granting a government project to a company of unknown integrity and expertise and being off-handedness. As a result of this, the system failed and system development became an issue in e-transformation.

6.4.4.1 Contract and contractors

Table 6.8 gives an insight into the tender awarding system of the Government of Malaysia.

Table 6.8 Tender awarding system of the Government of Malaysia.

Amount	Type of contract
Less than RM 10 000	Direct buying from any contractor
RM10 000 – RM20 000	Direct buying from any Bumi contractor
RM20 000 – RM50 000	Open tender[40]
RM50 000 – RM200 000	Open tender
Up to RM 5 million	Open tender
More than 5 million	Needs approval from the Treasury of Malaysia

All Government tenders are awarded to the Bumi's[41] contractors. Government Contracts has a special way of being awarded to the contractors, where priorities are given to the Bumi contractors. For government agencies that are dependent on these contractors, there are limited choices in terms of expertise, varieties and professionalism. And when less expertise in the contractors is joining with the no expert agency, the result is usually devastating or the least harmful, will be lateness in delivering the products. For a project below the value of RM20 000, it could be awarded to any contractor as required by the Head of Division and as shown in Table 6.8. Loopholes in the awarding system give rise to the selection of an unfit contractor, which eventually resulted in contractual binding that affected many aspects of e-transformation and became an issue especially in the government agencies.

6.4.4.2 Computer Division

The Computer division has been branded incompatible, not knowledgeable and unreliable by the editors. Based on Figure 6.10, IT application is one of 3 important aspects towards a successful IS deployment, therefore the Division entrusted with this mission is very important in any organisation planning for e-

[40] There are 4 types of open tender; Open tender; Open Tender only for Bumis; Open tender based on prequalification; Limited tender

[41] The Malays and native listed companies (literally translated as son of the soil)

transformation. According to Templar, 1989 (*via* Martinsons & Chong, 1999), technology is certainly introduced to foster economic efficiencies, but if it is not also designed to increase human resource effectiveness, it will be a disaster.

6.4.4.3 Changes in role

The 5 main new roles in the electronic publishing industry are Chief Information Officer (CIO), Web Designer, who are responsible for the production of graphic contents, Web Editor (Editor), who are responsible for the production of textual contents, Content Manager (Chief Editor), who are responsible for overseeing all of content development activities of the site, and Web Specialist, responsible for technical support to content development team, programming mark-up language to facilitate content development, and managing the contents in uploading, downloading, updating, backing up and archiving the contents. These new roles represent the new technology enabled phase. Changes in roles are to be expected in transformation and these resulted in the change of other aspects of the phase, which eventually became an issue in other areas such as standard as proven by the research and described later in this chapter.

6.4.4.4 Technology transfer

Government agencies that have their own computing or IT sections are usually there to provide the basic of office management system, such as, e-mailing and storing of a small amount of data, which includes letters and reports. Limited knowledge on business, management and IT culture drives the IT sections to employ or subcontract minor and major development in IT infrastructure, services and systems. Investments were made in IT solutions without consideration on IT or technology transfer, leading to a section that is reliant on external expertise and unable to develop beyond the limit of what they already have. Hence, another issue is consideration on technology transfer, whereby, time and cost in maintenance could be reduced and prolonged unnecessary contract, such as those apparent in the development of SPMP could be avoided.

6.4.5 Conclusion

In response to Research Question 1, Research Objective 1 is addressed where researcher concluded that issues in e-transformation in the editorial phase could be categorised as issues on Management (Management Team, Authority and Government), Perception on Automation (Scepticism, Negative Perception), System Development (Computer Department, Contract and Contractors) and Human Factors (Diffidence, Distrustful and Indifferent). Meanwhile, issues in SPMP (past experiences of using a system), should be considered in developing new systems for the editors.

6.5 Addressing Research Objective 1; Research Question 2

What are the changes in e-transformation of the knowledge intensive phase?

6.5.1 Changes in Architectures

Three system architectures are involved in the editorial phase; the Management Structure the System Structure and the Process Structure.

6.5.1.1 Changes in management structure

Figure 6.11 shows that the Management Structures' transformation affects the support group, which will become either irrelevant in the structure or reduced. We also see the need for a CIO in the context of transformation where the role of CIO exists only as a supporting figure to provide necessary management in the conventional phase. Other roles have been mentioned earlier.

In 2002, the concept of CIO in the Government sector was introduced in Malaysia to emphasise the increasing and prevailing use of technology into the business operations of Government. However, to create a new role in the Company involves the Public Services Agency; is a long and exhausting process. In the publishing industry, there will exist new positions such as Content Manager, Web Editor, Web Specialists and Web Designers, which have not been described yet under the prevailing classification.

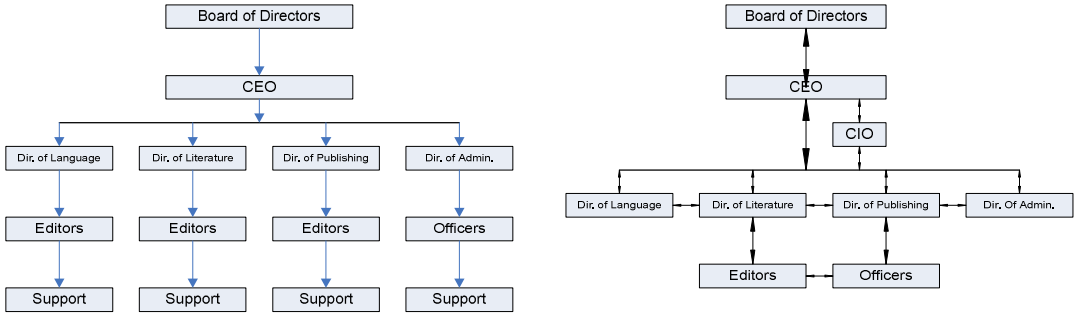


Figure 6.11 Changes in the management structure.

6.5.1.2 Changes in process structure

In the conventional phase, editor's formal communications with authors and all external communications are *via* the administrator (for record purposes), as shown in Figure 6.12*a*.

In electronic environment, all communications are direct to the recipient from the author (*via* the system, the administrator). In the process of digitisation of data and image manipulation where it is not needed in the conventional phase, it replaces the process of Prepress to produce the camera-ready copy ready for printing, while the product of digitisation is ready to be stored in the database; proofreading and typesetting are not needed (Figure 6.12*b*) or the role of proofreaders changed from determining technicalities of the physical books to proofing the electronic texts which has less emphasis on technicalities, but more on tagging and coding.

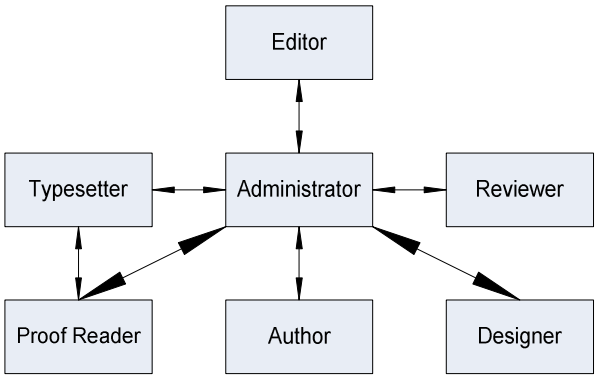


Figure 6.12*a* Conventional structure.

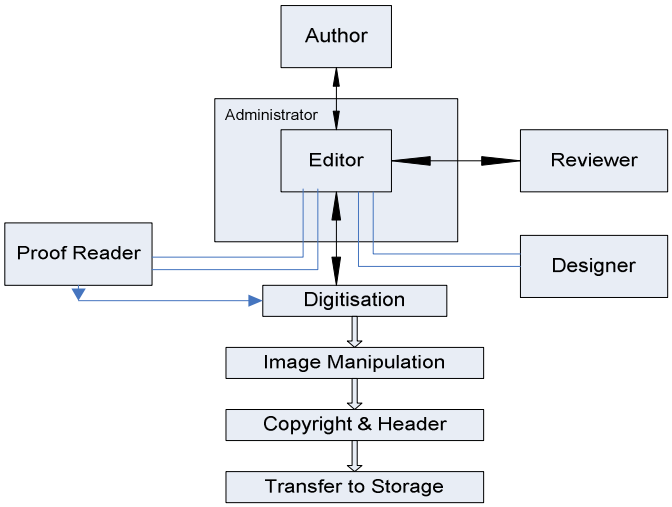
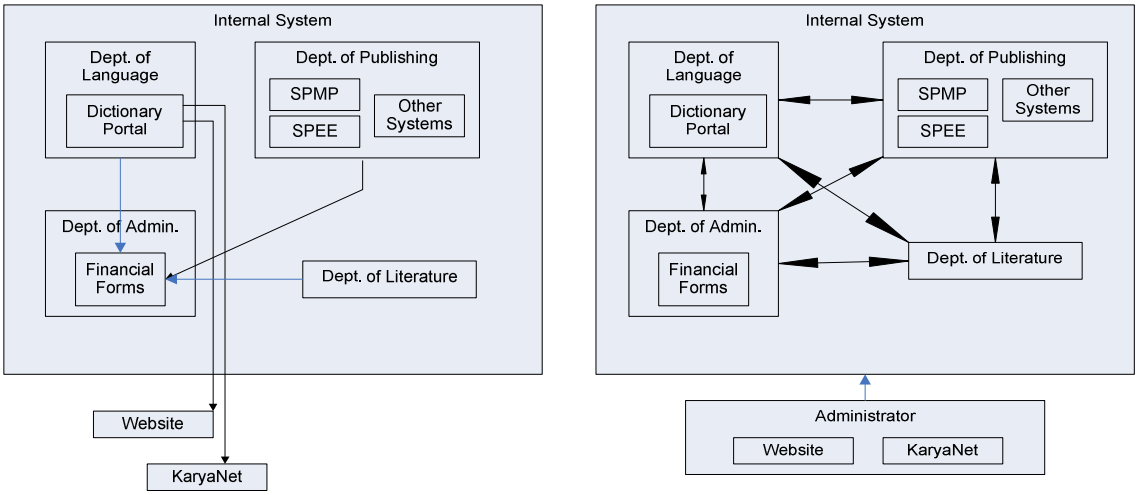


Figure 6.12*b* Electronic structure.

6.5.1.3 Changes in system structure

The Company has its own web site for the public and 4 other main structures individually clustered and does not integrate them (Figure 6.13, left). The SPMP is a database system to store data on publication works and to keep track of the progress of manuscripts, limited to the Department of Publishing. SPEE, is a database system for entries of encyclopaedias. The finance structure provides financial forms that could be accessed and filled in online but need to be printed out and sent back by hand. The language structure has its own system and other departments and divisions have since developed their own heterogeneous structure (Figure 6.13, left).

The electronic online system should be based on intra-integration and collaboration practices within departments and divisions (Figure 6.13, right). The system is characterised by its central repository and interrelated function without any boundaries (Figure 6.15), as compared to the heterogeneous structure of the conventional system (Figure 6.14).



Conventional Structure

Electronic Structure

Figure 6.13 Changes in system structure.

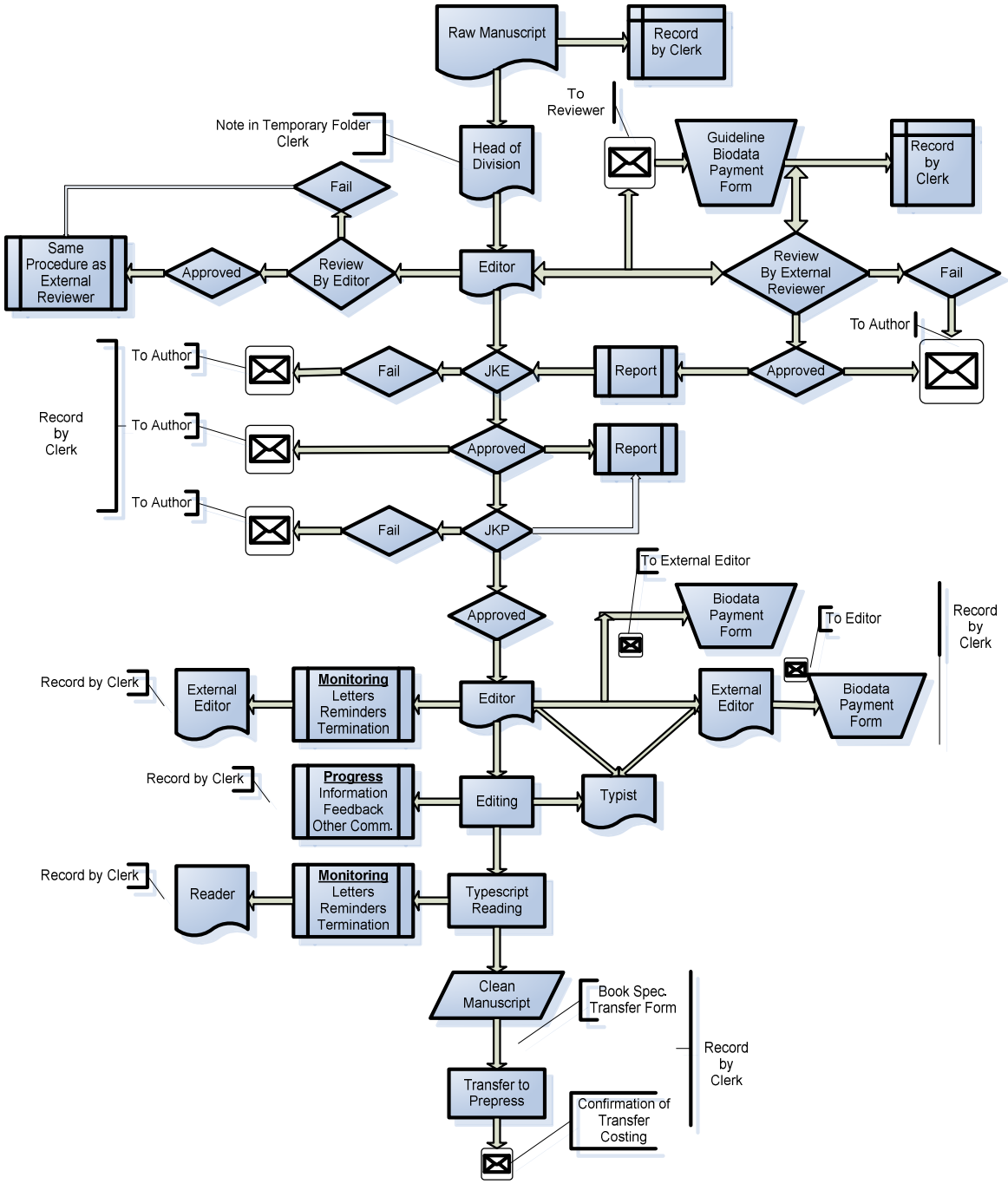


Figure 6.14 Conventional structure (heterogeneous).

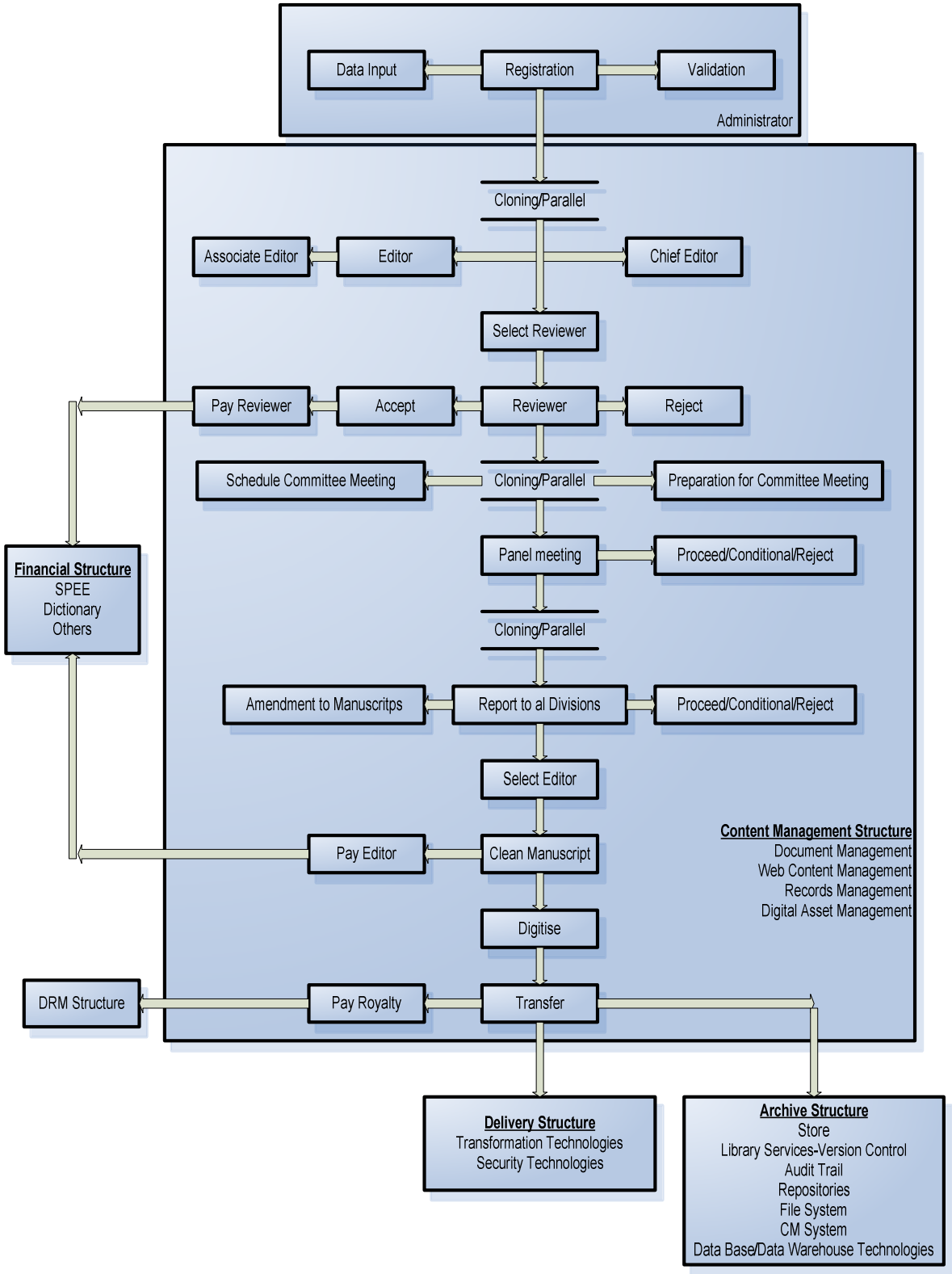


Figure 6.15 Electronic structure (central repository).

6.5.2 Changes in Industry Standards

The Company adopted *The Manual on Work Procedure* to ensure that all work related materials are handled in the manner as stated under this manual. It provides guidelines for all levels of workers to follow in conducting and handling of administrative and editing works.

Figure 6.16*a* and 6.16*b* shows how a job is transferred from one section to the other within the conventional and transformed environment. In normal conventional cases, 3 drafts were needed before a letter/memo could be approved and transferred and the final version is prepared in 3 copies. The first draft is for the editor to conduct copy and contents editing. The second draft is for the editor to produce the clean document and the third is for the insertion of a given reference number. The clean copy is then sent to the person authorised to approve the document. If he/she agrees with the letter/memo, it will be signed off or otherwise sent for corrections again until satisfied. Transfer of documents from one division to another within the Company is done by hand by the support group and transfer out of the Company by postal services requires the approval of the Administration department. The movement of the document from one section to another is recorded by a clerk in either a report book or a designated file for the said project. Altogether, this process involves 5 stages of work group as depicted in the Manual and Figure 6.16*a*. It is a days' work to complete a set of letters and to send them to the recipients. With the transformation, the flow does not comply with the *Manual on Work Procedure*. The transformed flow shown in Figure 6.16*b* shows that Stage 3, 4 and 5, are no longer applicable or needed. It shows a reduction on time taken for transfers, reduction in work force, simplification of tasks and the need of a new procedure that will comply with auditing purposes imposed on government agencies.

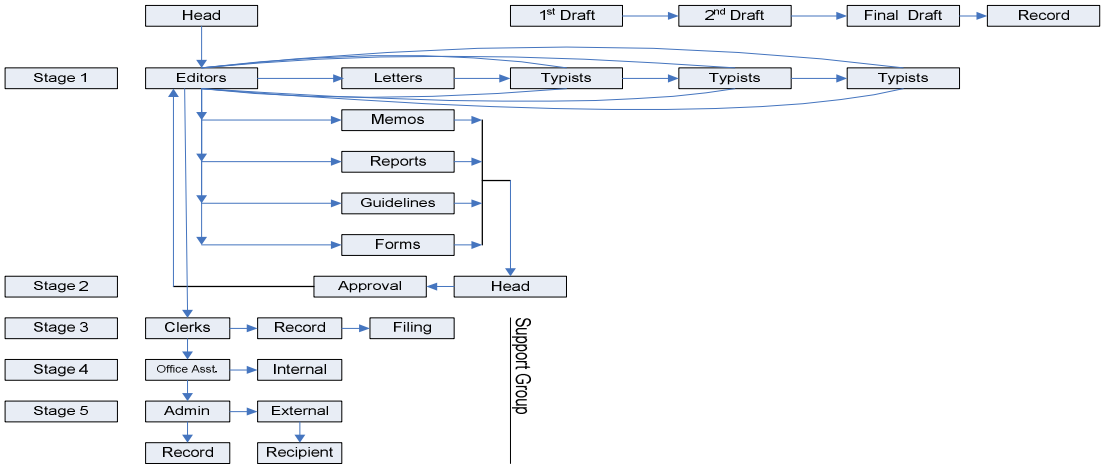


Figure 6.16*a* Workflow in conventional environment.

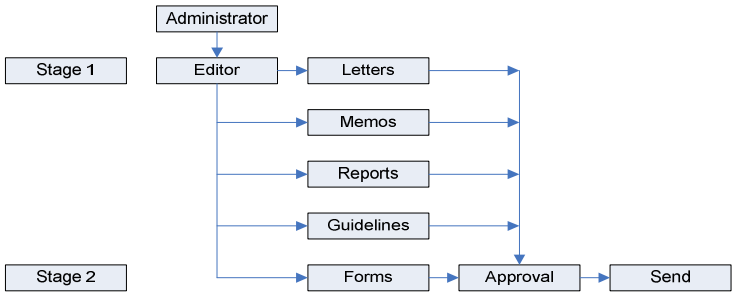


Figure 6.16*b* Workflow after transformation.

6.5.3 Integration and Disintegration of Elements

Researcher categorised 462 documents from 41 project files for books published in 2002-2003 and divided the documents created or filled in by the editors into 6 categories (Table 6.9). Researcher also studied 70 official forms (including administrative and financial forms) used by the editorial sections.

Research observation shows that there are inconsistencies in the filing of data or report, for example, where 41 projects were published, there should exist 82 reports in the total collection and 41 guidelines, one for each project, considering that each project has to undergo 2 different committee meetings before approval (JKE & JKP), thus at least 2 reports in every file is expected.

Misplaced, missing reports or data and inconsistencies in filing occurs widely using the manual conventional system.

Table 6.9 Categorisation of documents in the editorial phase.

	Forms	Letters	Memos	Claims	Reports	Guidelines
No. of Documents	107	152	90	97	15	1
Percentage	23.16%	32.90%	19.48%	21.00%	03.25%	00.22%

By adopting a Content Management system groups of elements in the workflow could be integrated into one database that could be accessed automatically *via* the electronic system. Integration is also characterised in having cross functional groups, direct management contact at all levels and integrative divisions (Figure 6.13, right). Integration is seen in the structures and in the integration of data, documents and manuscripts in databases. Disintegration of the system is characterised by the extended boundaries now available by IT communications between divisions, departments and between its authors.

6.5.4 Linkages between Various Elements Across Super System

In this section of study we look into the overall structure of the Company and studied the elements that are linked to editors and the editorial phase in conventional and electronic environments. New linkages in the form of interrelated activities exist within the super system. All administrative forms could be accessed, filled in and send back online within the system (Figure 6.13, right; 6.15).

6.5.5 Substitutions within the Subsystem

Through digitisation and manipulation of data within the electronic phase, the typesetting and proofreading processes are being substituted with these 2 processes. Cannibalisation occurs in the support group and typescript reading. Substitution also occurs in the way documents, data and manuscripts are transferred from one section to another. Substitution of roles and workforce occurs with changes in its system.

6.5.6 Disruption of Workforce

In conventional editing phase, only one editor is normally assigned to a project to ensure the consistency, flow of language and context and individuality of style of the text, which contributes to the professionalism and strength of the manuscript. The work of editors is helped by typists, external editors and typescript readers.

In the electronic environment, the editor edits the manuscript on screen, no typists needed to make corrections, and no comparison of drafts and original is needed. A 500 page manuscript conventionally edited will need seven typists to make corrections for the first draft. In the publication of compilation of works, we look at manuscripts handled by several editors due to the fact that much administration work is needed for this type of publication. In electronic environment, the workload in administrative areas will be reduced and editors could be assigned a whole compilation project, which ideally, is the best solution in producing better manuscripts. The introduction of cloning or parallel system could also be implemented (Figure 6.15).

6.5.7 Conclusion

In addressing Research Question 2 of Research Objective 1, researcher concluded that 5 types of changes occurred in the process of transformation; changes in standard structure, changes in architecture (system structure, management structure and process structure), integration and disintegration of elements across the structure, linkages across the system and substitution of elements in the structure. Disruption of work force also occurred by the cannibalisation of stages and elements in the system, substitution within the system, linkages and integration and disintegration of elements.

6.6 Addressing Research Objective 1; Research Question 3

What are the implications on the quality and standard in knowledge intensive products?

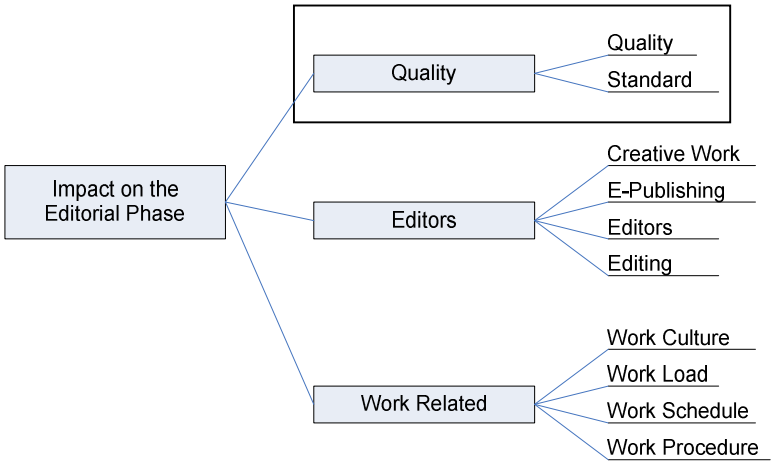


Figure 6.17 The impact of transformation on the editorial phase affecting quality

Figure 6.17 shows the impact of transformation on the editorial phase affecting quality and standard in knowledge intensive products. Meanwhile, Table 6.10 shows the related variables and proposition designed in the earlier Chapter.

Table 6.10 Extracted from Table 6.1, illustrating the related variables and proposition.

Versus	SPMP	Experiences-Dissatisfaction	Experiences-Unreliable	Experiences-Incompetence	Experiences-Frustration	HF-Distrustful	HF-Diffidence	HF-Indifferent	Human Factor	Automation	Negative	Sceptical	Management	Authority	SD-Contract	SD-Contractors	SD-Comp. Div.	Workload	Work Schedule	Work Procedure	Work Culture
Workload										P2	P2	P2									
Work Schedule										P2	P2	P2									
Work Procedure										P2	P2	P2									
Work Culture										P2	P2	P2									
Standard										P2	P2	P2			P2	P2	P2	P2	P2	P2	P2
Quality										P2	P2	P2			P2	P2	P2	P2	P2	P2	P2

6.6.1 Effects of Transformation on Quality and Standard

Table 6.11 shows the response of the editors on the effects of automation in relation to standard and quality.

Table 6.11 The effects of automation on standard and quality.

	Standard	Quality
Automation	2	2
Negative Perception	-	-
Sceptical	-	-

A general enquiry on the topic of automation and the concern over changes in standard and quality of the editorial product produced the same number of response and this could be shown to be the divided views of the editors (Table 6.11). Some agreed that standard and quality will remain unchanged and some do not while some think that either one could change or the other does not. This shows that the editors have vague idea on what will change and what will not. Their only recollection on change is the way the work style will change while the references will not, which is quite true relating to dictionaries and reference manuals on languages.

However, a detailed study on the reference books of standard and quality, which are other than those mentioned above, such as the *Gaya Dewan* and *The Manual on Work Procedure,* reveals a somewhat different scenario, which is presented in the statistics shown in Table 6.12, A, B, and 6.13 C, D, E. From the book of *Gaya Dewan*, 986 items related to standard and quality were studied and a total of 215 items were found will change due to automation while a total of 771 items will remain unchange due to transformation.

A total of 1411 data were collected based on the *Manual on Work Procedure* and DBP's house style, 135 from the former and 986 from the later. An additional of 70 data from administrative forms was also included.

Therefore, it could be concluded that Standards and Procedures will change due to automation and the degree of change will depend on the type of

standards and procedures applied by the Company and how much transformation will affect them.

Table 6.12 (A, B) Statistics on data from 3 sources.

A. Statistics			
		Status	Category
N	Valid	1411	1411
	Missing	0	0

B. Status*Category Cross Tabulation					
		Category			
		Procedure	House Style	Forms	Total
Status	Unchanged	200	771	0	971
	Changed	155	215	70	440
Total		135	986	70	1411

Table 6.13 (C, D, E) Frequency table from data collected from 3 sources.

C. Status					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unchanged	971	68.8	68.8	68.8
	Changed	440	31.2	31.2	100.0
	Total	1411	100.0	100.0	

D. Category					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Procedure	355	25.2	25.2	25.2
	House Style	986	69.9	69.9	95.0
	Forms	70	5.0	5.0	100.0
	Total	1411	100.0	100.0	

E. Descriptive Satistics					
	Frequency	Percent	Maximum	Mean	Std. Deviation
Status	1411	0	1	.31	.463
Category	1411	1	3	1.80	.510
Valid (listwise)	1411				

Statistics (Table 6.13) shows that 155 procedures will change, which is about 43.66%, 215 house styles will change which is about 21.81% and 100% of administrative forms will change due to e-transformation, contributing to a total of 31.2% of changes.

6.6.2 Relationship between System Development and Standard and Quality

Table 6.14 shows the response of the editors on experiences in transformation in relation to automating their entire work system.

Table 6.14 Relationship between system development and standard and quality.

	Standard	Quality
System Development	-	1
Computer Division	-	-
Contract	-	-
Contractors	-	-

Despite the changes occurring in transformation, editors agree that in implementing a system, the quality of the product should be considered [(*"We need to have a principle on implementation wise, it has to be fully implemented and it has to be able to increase our productivity, increase our quality and we need to make sure it is secure.") (*2.025; App. 3)].

6.6.3 Conclusion

In addressing Research Question 3 of Research Objective 1, researcher concluded that in knowledge intensive works, where standard and quality play an important role, transformation would change some of the standards and quality applied. References on language will remain the same but references on procedures and house style will change in parts to accommodate technology and the new way of doing the work. With these changes, system development will have to be tailored to ensure the new product encompasses the required standard and quality. However, the Company will need to address the need to change the procedures

and manuals to cater for technology change. This is also proven by the relationship between Standard and Quality and System Development.

6.7 Addressing Research Objective 1; Research Question 4

Will e-transformation change the work-related aspects of editors?

Figure 6.18 illustrated the variables affecting the work related issues while Table 6.15 shows the related variables and the proposition developed in earlier Chapter.

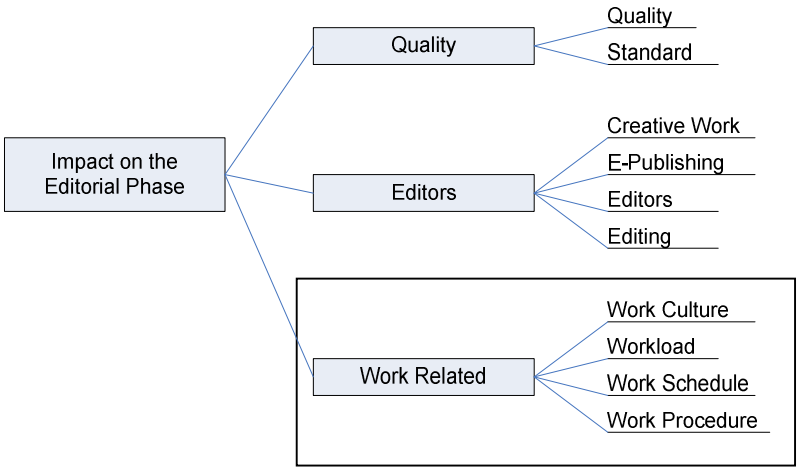


Figure 6.18 Variables from the impact of work related issues.

Table 6.15 Extracted from Table 6.1, illustrating the related variables and proposition.

Versus	SPMP	Experiences-Dissatisfaction	Experiences-Unreliable	Experiences-Incompetence	Experiences-Frustration	HF-Distrustful	HF-Diffidence	HF-Indifferent	Human Factor	Automation	Negative	Sceptical	Management	Authority	SD-Contract	SD-Contractors	SD-Comp. Div.	Workload	Work Culture	Standard	Quality
Workload						P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2			P2	P2
Work Schedule						P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2			P2	P2
Work Procedure						P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2			P2	P2
Work Culture						P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2			P2	P2
Standard										P2	P2	P2	P2	P2	P2	P2	P2				
Quality										P2	P2	P2	P2	P2	P2	P2	P2				

To address this research question, we will need to look at all relationships to work related issues that occurred due to the transformation. These will be the relationships between human factors and work-related issues, management issues and work related issues, system development and work related issues, and perception and work related issues.

6.7.1 Effects of Transformation on Work Related Issues

Table 6.16 below shows the response of the editors and the relationship between the two sets of variables. Work culture is affected most, followed by work procedure and workload. However, no relationship was located between human factors and work schedule.

6.7.2 Relationship between Human Factors and Work Related Issues

Table 6.16 Relationship between human factors and work related issues.

	Work Culture	Work Procedure	Work Schedule	Workload
Diffidence	5	3	-	1
Distrustful	2	-	-	-
Indifferent	1	-	-	-

6.7.2.1 Relationship between diffidence, distrustful and indifference and work culture

Editors are prone to do their work on paper rather than onscreen ["*…yes, you could Undo it, but right now, it is easier on paper….*" (2.156; App. 3)]. In terms of lack of confidence, they do lack the confidence because of the unknown circumstances that could affect their work. System could corrupt and cease working, get damaged and disrupted with power cuts (which happens in Malaysia) or disturbances and this will affect the work of the editors. Editing takes concentration and time to complete. It is tedious work with referencing, asking around and ensuring the correct terminologies and words to be used and at the same time, needs flipping back and forth across the pages. Disruption of work is the least that an editor needs, whence it disrupts the concentration and flow of thoughts of an editor. Therefore the use of system, which they see could

disrupt the continuity of the work, is less welcomed, though the idea of automation is not.

Work culture in the government sector embedded distrust and indifference towards the workers involve in the system development [("*The computer unit, they only want us to use everything first, they do not care whether we like it or not." (*2.038; App. 3)]. Editors see this as a hindrance to transformation.

This research confirmed that work style will need to change to make way for transformation. It is not an issue of being lazy or laid-back but it has to do with making things right for the people to work with and work in ["*Our style of work is to do it first and think later*." (2.157; App. 3)]. According to Lim (2001), in the work place, Malays[42] do not seem to pursue wealth for wealth's sake. They are more motivated by their sense of sharing with others and job recognition. Where work and life is viewed as a passing event, family and friends take precedence over self-centered interests such as profit accumulation. These values imply that policies that save face for all parties concerned and maintain work place harmony are more appropriate. Hence, indirect, tactful persuasions are likely to be more affective than direct orders (Lim, 2001; Abdul Rashid & Ho, 2003).

6.7.2.2 Relationship between diffidence and work procedure

Editors are less confident in changing the work procedure when aligning what they have been doing all these years to a changed procedure ["*… from the point of delegating further work that will be between us and the writers, but the first letter must be there*." (1.029; App. 3)]. According to Martinsons & Chong, (1999), technological change can spark employee fears about job insecurity, loss of work control and deskilling. Many competent workers are simply afraid of IT or worried about information overload. They further stressed that even when the changes that are directly imposed by the technology are well managed, the psychological transition to a new system may be problematic and needs expert

[42] There are about 99.5% Malays in the company's head quarters in Kuala Lumpur.

advice. Therefore, when they are faced with the prospect of a changed work procedure, diffidence overcame them. It is not about job insecurity but it is the concern over loss of work control and deskilling. Since many are not IT competent, these editors are afraid that with new IT competent editors, they will lose out in terms of job recognition to younger editors.

There were no relationship between work procedure and distrust and indifference. There were no relationship between work schedule and diffidence, distrust and indifference.

6.7.3 Relationship between Human Factors and Workload

6.7.3.1 Relationship between diffidence and workload

The lack of confidence in using a system is augmented by the workload the editors had to face in pursuing it. They look at the entry of data as an added workload while using the files is not. Updating work is also looked on as another workload when they do not have to do it at all in the conventional phase ["*We are lazy to enter too many data because we are used to using the file, we do not need to enter any data.*" (2.158; App. 3)]; ["*… if we proceed and we would like to publish it in the web for others to use, we will have to update it." (*2.159; App. 3)].

According to Martinsons & Chong (1991) employees need to be told how the new IS will affect their jobs and wherever possible, be given opportunities to gain experience without rearing mistakes. This will ultimately lead to an understanding of the new work style and appreciating the value it could bring to their own work, thus diminishing the perception on having more loads whereas it is only a changing of roles or style.

6.7.4 Relationship between Management and Work Related

Table 6.17 shows the response of the editors on the issues on management in relation to work related areas.

Table 6.17 Relationship between management and work related.

	Work Culture	Work Procedure	Work Schedule	Workload
Management	5	2	-	2

6.7.4.1 Relationship between management and work culture, work procedure and workload

Management culture in DBP, as has been discussed earlier, is always top down, autocratic and precisely following the book in its procedures. This is somehow a bad implication since the procedure does not include anything new on IT assimilation or business transformation. The management culture, not the workers is very laid-back and being in an autocratic environment, editors merely obeyed instructions ["*...this is very typical of DBP...(on project failures).*" (2.160; App. 3)]. Speed in processes, feedbacks, implementations and change has always been less compared to the private sectors due to the management culture of the public sector including DBP. When a change is decided by the Head of Department, it has to be brought forward in a meeting, discussed and decision made. The meeting of the Head is only scheduled once a month and this type of decision making is the hindrance towards change.

With no competitive market, security of the job guaranteed by the government and actions buffered by the government, managers are not trained to be visionary, or having the competitive edge, or foresighted, or having an all rounded knowledge and technical skills, incapable of delivering beyond their expertise. Bird (1992) found managers to be technophobic, short-sighted and complacent about the need to use IT. According to him, many of their IT related decisions were inherently political, based on desired relationships between technologists and end user. A new IS was often primarily designed to redirect information flow and redistribution of power rather than to improve performance.

The '*musyawarah*', an ideal platform of collective consultative decision making in the Malay organisation, needs a paradigm shifts since it remains a prerogative of managers. Inadequate consideration and poor management of

human factors can hinder the use and effectiveness of IS (Ives & Olsen, 1984; Willcocks & Mason, 1988). According to Martinsons & Chong (1999), a good understanding of the intended users, their tasks and the interdependencies between the two is a likely prerequisite for IS success ["*…our organisation does not look at all at the real details, our requirements that is why they themselves do not understand it*." (2.161; App. 3)].

An organisation needs someone capable of translating the re-engineered business vision into IT architecture (Lai & Mahapatra, 2004), and BPR change must be strategy driven with visionary leadership from top management. With this, the organisation will have no need to contract the private sectors in change management ["*…we ask for a service from the private sectors….*"(2.162; App. 3)].

6.7.5 Relationship between System Development and Work Related

Table 6.18 shows the response of the editors on system development issues in relation to work related areas.

Table 6.18 Relationship between system development and work related.

	Work Culture	Work Procedure	Work Schedule	Workload
Computer Division	2	-	-	-
Contract	1	1	-	-
Contractors	3	2	-	2

6.7.5.1 Relationship between contract and work culture and work procedure

The Contract is a binding document between Contractors and DBP. Contracts in DBP are also highly classified documents that are inaccessible to editors. Hence, editors will not know what is written and what contained in the Contract and this is making them much more distrustful and sceptical about implemented projects ["*This always happened because we have no right to make the decisions." (*2.022; App. 3)]. Sometimes work procedure will also be affected by the signed Contract ["*Or maybe now we are bound with the 2 ongoing projects which will be published by 2006." (*2.163; App. 3)], especially involving cooperative

publishing between two companies. For example, there are 2 types of cooperative work between DBP and Contractors, co-edition and co-publishing. In co-edition work, the cooperation is normally in producing a Malay version of the original English (or other language) works, involving illustrated texts, mainly books for the children group. In co-publishing, the cooperation goes beyond clean manuscript involving higher learning institutions, where a shared publication is determined based on an agreed proposition.

6.7.5.2 Relationship between contractors and work culture, work procedure and workload

Editors think that Contractors are lazy or did not do enough to ensure that the system is developed up to the required standard, or they should be able to advise DBP on many technicalities that is lacking in the human resources of DBP, ["*In Oracle, you can write your own code and I do not think the contractor is competent in writing codes. What I mean is the software is flexible; you can do much more for SPMP. Since we could write our own code, like developing a website, we can write what we want for SPMP." (*2.164; App. 3)].

In terms of work procedure and determining the workload, editors found that there are parts of the book production which they have no say like before and where the contractor failed to deliver, the workload fall back to the editors and they will still do it because it came as an order from the top management and also because of the need to see their book published in the quality required and agreed by them ["*…it is because they determined it; they have the authority to design…."* (2.049; App. 3)].

6.7.5.3 Relationship between perceptions and work related issues

Table 6.19 shows the response of the editors on perception issues in relation to work related areas.

Table 6.19 Relationship between perception and work related issues.

	Work Culture	Work Procedure	Work Schedule	Workload
Negative Perception	1	-	-	1
Sceptical	5	-	-	-

6.7.5.4 Relationship between negative perceptions and work culture and work procedure

> "*... to change to something new, that might take time."*
> (2.165; App. 3)

Malaysia is ranked low on the uncertainty avoidance index in Hofstede's classic study on managerial values of different countries (Lim, 2001; Storz 1999), that claimed Malaysian managers can tolerate a higher level of uncertainty, and a low level of anxiety that reflex to a certain extent that problem solving need not be solely the responsibility of individuals, but have their recourse to higher authorities. However, the Malays reinforces a pattern of behaviour to work with nature (Stork, 1991) which imply that problem solving is slower and the approach could be more fluid and flowing with the tide (moveable and not immutable, referring to time). Therefore, this explains why negativity (in perception) could be tolerated in the Malaysian companies, and whatever the situation the editors are in at the moment, they believe that time will take care of that.

There were no relationship between negative perception and work procedure, work schedule and workload.

6.7.5.5 Relationship between sceptical and work culture and work procedure

According to *Kamus Dewan* (dictionary), *budi* encompasses intelligence, good behaviour, good judgement, good communication (politeness), being good to others and not forgetting the goodness of others towards oneself. It also includes being thankful and rewarding it. In 2002, Prime Minister Mahathir Mohamed[43], who is also categorised as 'Malay' commented, "*The Malays are laid-back, and prone to take the easy way out. Working hard, taking risks and being patient is*

[43] Excerpts from a speech given by the ex-PM at Harvard Club of Malaysia on 29 July 2002.

not a part of their culture." Hussain (1998), stated that maintenance of dignity, principles and humanity is considered of utmost importance in the Asians culture. Lim (2001) commented that the Malays are known to respect authority and hierarchy and this behaviour rest on the '*budi*'[44] complex that illustrates the ideal behaviour expected of Malays (Abdullah, 1996). According to Abdullah (1996), the Malays shy away from displaying assertive behaviour, giving negative feedback, or speaking up openly against elders, non-assertive (Sendut, 1991), modest and polite, and place their highest priority on getting along with others (Sendut, 1991). These values are appreciated as '*halus*' (refined or mannerly) within the '*budi*' context (Lim, 2001).

Hence, when editors were sceptical about entering data into a system, this has nothing to do with the Malay culture associated with much of the *budi* complex, nor has it much to do with being lazy as deemed by Mahathir, but it has something to do with the editors being judgemental towards a management system they trust ["*… editors do not like it,… So they have this scepticism on what they enter into the system…."* (2.166; App. 3)]. In conventional setting, data in files are not looked as sceptical since it has been the way of working for many years. Somehow, when the system changed, editors felt that the nature of the management system seemed to change as well towards more monitoring, since the data to be captured will make their movement in work related areas transparent.

In terms of work procedure, editors showed the enthusiasm of doing things beyond their scope of work provided they are given the opportunities ["*… we could do the typesetting but sometimes we do not need to determine the specification in the form of format and basic designs because at that stage of typesetting it will change." (*2.167; App. 3)] and this statement at the same time, is contradictory to what Mahathir said on Malays being laid- back and prone to take the easy way out.

[44] *Budi* is a Malay word which carries the meanings of intelligence, attitude, behaviour, good intentions, good behaviour, charitable, thankful for good deeds upon them, not forgetting good deeds bestowed upon them, rewarding/repaying all good deeds received, doing good all the time, good communication (politeness and humility).

There is no relationship between scepticism and work schedule.

6.7.5.6 Relationship between sceptical and workload

Being sceptical about the workload has its source in the design of a book, where the job is done by the contractor and the editors are not involved in determining the final look ["*We discussed, we made suggestions, but the designer determined the look of the book, it is their ideas." (*2.168; App. 3)]. However, when the contractor fails to deliver some parts of the process such as quality control, part of the job falls back to the editors and adding more load to what the editors already have. This phenomenon contributed to delays and lateness in publishing the book.

6.7.6 Relationship between Standard and Quality and Work Related Issues

Table 6.20 shows the response of the editors on the issues of standard and quality in relation to work related areas.

Table 6.20 Relationship between standard and quality and work related issues.

	Work Culture	Work Procedure	Work Schedule	Workload
Standard	-	1	-	-
Quality	-	-	-	-

6.7.6.1 Relationship between quality and work procedure

Complying with the work procedure is part of producing quality work by ensuring its' standard in most government sectors as well as the editorial phase, as has been discussed earlier. Adherence to a changed work procedure will ensure standard and quality of the changed product or changed process.

6.7.7 Conclusion

Much of work-related aspects of the editors will change due to transformation. The most important are those associated with culture, where an elaborate explanation was given to understand the impact of culture in transformation. This is important to ensure the success of any system implementation. Human

Resources Department and IT Division will have an important role to play in determining the right route to take in the implementation of new technology.

6.8 Addressing Research Objective 1; Research Question 5

What are the issues and implications surrounding reengineering of the editorial processes?

6.8.1 Editing

Editing is the most important task in the editorial processes. This section tries to determine whether the transformation from conventional editing into electronic editing is an issue, thus contributes to the issues is the transformation of the editorial phase. Hence, the research includes an analysis on i) the efficiency of conventional editing and electronic editing; ii) the differences between the two types of editing; iii) the differences in the age group that contributes to creativity; iv) the creativity of editors in both conventional and electronic editing (based on the number of markings); and v) creative disruption that occurs in the transformation from conventional to electronic editing.

Two sets of different perspectives were analysed, relationship among variables and the differences between the groups. In this research, T refers to the Text used, where T1 is Text 1 and T2 is Text 2. C refers to Conventional and E to Electronic or onscreen editing. C1 refers to conventional editing on Text 1 and C2 refers to conventional editing on Text 2. E1 refers to onscreen editing on Text 1 and E2 refers to onscreen editing on Text 2. Table 6.21 represents the codes for the editing data collection, while Appendices 4-7 shows samples of both types of editing on two different texts.

Table 6.21 Editing data collection

T1C1	Text 1, Conventional Editing		T1CT1	Text 1, Conventional Time Editing
T1E1	Text 1, Onscreen Editing		T1ET1	Text 1, Onscreen Time Editing
T2C2	Text 2, Conventional Editing		T2CT2	Text 2, Conventional Time Editing
T2E2	Text 2, Onscreen Editing		T2ET2	Text 2, Onscreen Time Editing

6.8.1.1 Relationship among variables

Four relationships among the variables were analysed. They are:

i. ***T1C1 and T1CT1*** *(Text 1 Conventional Error and Text 1 Conventional Time)*

Descriptive Statistics

	Mean	Std. Deviation	N
T1C1	95.2727	47.65781	33
T1CT1	19.6527	7.99422	33

Correlations

		T1C1	T1CT1
T1C1	Pearson Correlation	1	.818**
	Sig.(2-tailed)	.	.000
	N	33	33
T1CT1		.818**	1
		.000	.
		33	33

** Correlation is significant at the 0.01 level

T1C1 are data from the errors detected and corrected by the editor in editing sample of Text 1, which was done conventionally. T1CT1 is the time taken to complete this task. This will yield the relationship between the time taken to edit conventionally Text 1.

The relationship between T1C1 and T1CT1 was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a strong, positive correlation between the two variables ($r = 1, n = 33, p < 0.01$). The Pearson-correlation test gives a positive *r* value of .818 which means there is a positive correlation between the two variables, indicating that the more errors detected and corrected, the more time is taken to complete the editing for Text 1. The strength of the relationship, shown as 1 indicates that it has a perfect positive correlation. Therefore, there is a strong relationship between the two variables. The more error detected and edited, the more time is taken to complete the editing.

ii. T1E1 and T1ET1

Descriptive Statistics

	Mean	Std. Deviation	N
Text1E1	82.6667	52.93077	33
Text1ET1	16.4979	8.52196	33

Correlations

		T1E1	T1ET1
Text1E1	Pearson Correlation	1	.699**
	Sig. (2-tailed)	.	.000
	N	33	33
Text1ET1		.699**	1
		.000	.
		33	33

** Correlation is significant at the 0.01 level

T1E1 are data from the errors detected and corrected by the editor in editing sample of Text 1, which was done electronically. T1ET1 is the time taken to complete this task. This will yield the relationship between the time taken to edit electronically Text 1 ($r = 1, n = 33, p < 0.01$).

The Pearson-correlation test gives a positive *r* value of .699 which means there is a positive correlation between the two variables, indicating that the more errors detected and corrected, the more time is taken to complete the editing. The strength of the relationship, shown as 1 indicates that it has a perfect positive correlation. Therefore, there is a strong relationship between the two variables.

iii. T2C2 and T2CT2

Descriptive Statistics

	Mean	Std. Deviation	N
T1C2	72.7576	28.67602	33
T2CT2	13.1336	5.27319	33

Correlations

		Text1C1	Text2C2
T2C2	Pearson Correlation	1	.290
	Sig. (2-tailed)	.	.101
	N	33	33
T2CT2		.290	1
		.101	.
		33	33

T2C2 are data from the errors detected and corrected by the editor in editing sample of Text 2, which was done conventionally. T2CT2 is the time taken to complete this task. This will yield the relationship between the time taken to edit conventionally Text 2 (r = 1, n = 33, p< 0.101).

The Pearson-correlation test gives a positive *r* value of .290 which means there is a positive correlation between the two variables, indicating that the more errors detected and corrected, the more time is taken to complete the editing. The strength of the relationship, shown as 1 indicates that it has a perfect positive correlation. Therefore, there is a strong relationship between the two variables.

iv. T1E2 and T2ET2

Descriptive Statistics

	Mean	Std. Deviation	N
T2E2	60.1515	29.88114	33
T2ET2	14.8639	6.19277	33

Correlations

		Text1C1	Text2C2
T2E2	Pearson Correlation	1	.739**
	Sig. (2-tailed)	.	.000
	N	33	33
T2ET2		.739**	1
		.000	.
		33	33

** Correlation is significant at the 0.01 level

T2E2 are data from the errors detected and corrected by the editor in editing sample of Text 2, which was done electronically. T2ET2 is the time taken to

complete this task. This will yield the relationship between the time taken to edit electronically Text 2 (r = 1, n = 33, p< 0.01).

The Pearson-correlation test gives a positive *r* value of .739 which means there is a positive correlation between the two variables, indicating that the more errors detected and corrected, the more time is taken to complete the editing. The strength of the relationship, shown as 1 indicates that it has a perfect positive correlation. Therefore, there is a strong relationship between the two variables. Research concluded that editing correlates with time, the more editing conducted, the more time it takes and this holds true for both type of editing.

6.8.1.2 Exploring differences between groups

Wilcoxon Signed Ranks Test was used to determine the differences between groups of editing. This test is used when a repeated measure or paired t-test would be useful; that is when the same participants perform under each level of the independent variable. This test is also suitable for small sample data and data that contain outliers. The ranks are to put the numbers in order from the lowest to the highest while the hypotheses test is based on the ranks.

i. Group 1: T1C1 and T1E1

Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
T1C1-T1E1	Negative Ranks	22[a]	18.89	415.50
	Positive Ranks	10[b]	11.25	112.50
	Ties	1[c]		
	Total	33		

a. T1E1 < T1C1
b. T1E1 > T1C1
c. T1E1 = T1C1

Test Statistics[b]	
	T1E1- T1C1
Z	-2.834[a]
Asymp. Sig. (2-tailed)	.005

a. Based on positive ranks
b. Wilcoxon Signed Ranks Test

T1C1 are data from the errors detected and corrected by the editor in editing sample of Text 1, which was done conventionally. T1E1 are data from the errors detected and corrected by the editor in editing sample of Text 1, which was done electronically. This will yield the differences between the errors detected and edited conventionally and electronically by the editor on Text 1.

Since the sums of Ranks is based on positive Ranks, which is 10[b], whereby *b* equals to T1E1 > T1C1, therefore, it could be concluded that errors marked in editing electronically Text 1 is more than errors marked in editing conventionally Text 1. The Asymp. Sig. (2-tailed) value of .005 is derived, which is less than .05. Therefore, it could be concluded that the two sets of scores are significantly different. There is a difference in the editing of Text 1 where, more errors are marked in electronic editing compared to conventional editing.

ii. Group 2: T2C2 and T2E2

Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
T2E2-T2C2	Negative Ranks	30[a]	17.97	539.00
	Positive Ranks	3[b]	7.33	22.00
	Ties	0[c]		
	Total	33		

a. T2E2 < T2C2
b. T2E2 > T2C2
c. T2E2 = T2C2

Test Statistics [b]	
	T2E2- T2C2
Z	-4.623[a]
Asymp. Sig. (2-tailed)	.000

a. Based on positive ranks
b. Wilcoxon Signed Ranks test

T2C2 are data from the errors detected and corrected by the editor in editing sample of Text 2, which was done conventionally. T2E2 are data from the errors detected and corrected by the editor in editing electronically sample of Text 2.

This will yield the differences between the errors detected and edited conventionally and electronically by the editor on Text 2.

Since the sums of Ranks is based on positive Ranks, which is 3[b], whereby *b* equals to T2E2 > T2C2, therefore, it could be concluded that errors marked in editing electronically Text 2 is more than errors marked in editing conventionally Text 2. The Asymp. Sig. (2-tailed) value of .000 is derived, which is less than .05. Therefore, it could be concluded that the two sets of scores are significantly different. There is a difference in the editing of Text 2 conventionally and electronically where more errors are marked in the electronic editing of Text 2.

iii. Group 3: T1CT1 and T1ET1

Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
T1ET1-T1CT1	Negative Ranks	26[a]	17.10	444.50
	Positive Ranks	7[b]	16.64	116.50
	Ties	0[c]		
	Total	33		

a. T1ET1 < T1CT1
b. T1ET1 > T1CT1
c. T1ET1 = T1CT1

Test Statistics[b]	
	T1ET1-T1CT1
Z	-2.930[a]
Asymp. Sig. (2-tailed)	.003

a. Based on positive ranks
b. Wilcoxon Signed Ranks Test

T1CT1 are data from the time taken by the editor in editing sample of Text 1, which was done conventionally. T1ET1 is the time taken by the editor in editing sample of Text 1, which was done electronically. This will yield the differences between the times taken to edit conventionally and electronically Text 1.

Since the sums of Ranks is based on positive Ranks, which is 7[b], whereby *b* equals to T1ET1 > T1CT1, therefore, it could be concluded that the time taken in editing electronically Text 1 is more than the time taken in editing conventionally Text 1. The Asymp. Sig. (2-tailed) value of .003 is derived, which is less than .05. Therefore, it could be concluded that the two sets of scores are significantly different.

There is a difference in the time taken to edit Text 1 conventionally and electronically. Research found that more time was taken to edit electronically Text 1 compared to conventional editing.

iv. Group 4: T2CT2 and T2ET2

Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
T2ET2-T2CT2	Negative Ranks	17[a]	12.94	220.00
	Positive Ranks	16[b]	21.31	341.00
	Ties	0[c]		
	Total	33		

a. T2ET2 < T2CT2
b. T2ET2 > T2CT2
c. T2ET2 = T2CT2

Test Statistics[b]	
	T2ET2-T2CT2
Z	-1.081[a]
Asymp. Sig.(2-tailed)	.280

a. Based on negative ranks
b. Wilcoxon Signed Ranks Test

T2CT2 are data from the errors detected and corrected by the editor in editing sample of Text 2, which was done conventionally. T2ET2 is the time taken by the editor in editing sample of Text 2, which was done electronically. This will yield the differences between the times taken to edit conventionally and electronically Text 2.

Since the sums of Ranks is based on negative Ranks, which is 17[a], whereby *a* equals to T2ET2 < T2CT2, therefore, it could be concluded that the time taken in editing conventionally Text 2 is more than the time taken in editing electronically Text 2. The Asymp. Sig. (2-tailed) value of .280 is derived, which is *not* less (more) than .05. Therefore, it could be concluded that the two sets of scores are significantly not different (same).

However, for Text 2, the time factor is inconclusive. Research found that the two sets of score are the same, whereby a conclusive result could not be obtained.

6.8.2 Creative Disruption

The Mann-Whitney Test is used to find out whether disruption in creative work occurs in the transformation of editing from conventional to electronic. The Mann Whitney U test tests the hypothesis that two independent samples (Experience; 2-9 years and more than 10 years) come from populations having the same distribution (editing). This test will determine whether there is a significant difference between the two independent variables, in terms of errors marked and time taken to do the editing.

6.8.2.1 Mann-Whitney Test 1

Ranks				
Experience		N	Mean Rank	Sum of ranks
T1C1	2-9 years	16	11.34	181.50
	More than 10 years	17	22.32	379.50
	Total	33		

Test Statistics [b]	
	T1C1
Mann-Whitney U	45.500
Wilcoxon W	181.500
Z	-3.261
Asymp. Sig. (2-tailed)	.000
Exact Sig. (2* (1-tailed Sig.)	.001[a]

[a] Not corrected for ties

[b] Grouping Variable: Experience

The *z* value is -3.261 with a significance level of p=.000. The probability value (*p*) is less than .05, *p*<0.5, therefore it could be concluded that for the conventional editing of Text 1, there is a significant difference between editors with more than 10 years of experience and those with less than 10 years of experience.

6.8.2.2 Mann-Whitney Test 2

Ranks				
Experience		N	Mean Rank	Sum of ranks
T1E1	2-9 years	16	12.47	199.50
	More than 10 years	17	21.26	361.50
	Total	33		

Test Statistics [b]	
	T1E1
Mann-Whitney U	63.500
Wilcoxon W	199.500
Z	-2.612
Asymp. Sig.(2-tailed)	.009
Exact Sig.(2*(1-tailed Sig.)	.008[a]

[a] Not corrected for ties

[b] Grouping Variable: Experience

The *z* value is -2.612 with a significance level of *p*=.009. The probability value (*p*) is less than or equal to .05, *p*<0.05, therefore it could be concluded that for the electronic editing of Text 1, there is a significant difference between editors with more than 10 years of experience and those with less than 10 years of experience. Test for Text 2 reported a no significant value. It could be because Text 2 is less complex than Text 1, though author tried to find a text which is comparable to Text 1. Perhaps, having the same Text in the same context but conducting it as a separate entity of Texts will give a different result.

6.8.2.3 Mann-Whitney Test 3

Ranks				
Experience		N	Mean Rank	Sum of ranks
T2C2	2-9 years	16	14.94	239.00
	More than 10 years	17	18.94	322.00
	Total	33		

Test Statistics [b]	
	T2C2
Mann-Whitney U	103.000
Wilcoxon W	239.000
Z	-1.190
Asymp. Sig. (2-tailed)	.234
Exact Sig. (2* (1-tailed Sig.)	.245[a]

[a] Not corrected for ties

[b] Grouping Variable: Experience

The *z* value is -1.190 with a significance level of p=.234. The probability value (p) is not less than or equal to .05, p>0.05, therefore it could be concluded that for the conventional editing of Text 2, there is no significant difference between editors with more than 10 years of experience and those with less than 10 years of experience.

6.8.2.4 Mann-Whitney Test 4

Ranks				
Experience		N	Mean Rank	Sum of ranks
T2E2	2-9 years	16	14.75	236.00
	More than 10 years	17	19.12	325.00
	Total	33		

Test Statistics [b]	
	T2E2
Mann-Whitney U	100.000
Wilcoxon W	236.000
Z	-1.298
Asymp. Sig. (2-tailed)	.194
Exact Sig. (2* (1-tailed Sig.)	.204[a]

[a] Not corrected for ties

[b] Grouping Variable: Experience

The *z* value is -1.298 with a significance level of p = 0.194. The probability value (p) is not less than or equal to .05, p > 0.05, therefore it could be concluded that for the electronic editing of Text 2, there is no significant difference between editors with more than 10 years of experience and those with less than 10 years of experience.

In the context of this study, we noticed that many more mature editors, that are editors with more than 10 years of working experience, made more corrections or editing compared to editors with less experience. These editors registered higher editing marks. All corrections made were based on the standards applied at case Company. In accordance with this, researcher suggested that the more editing conducted on the text, the more creative they are in their work, as long as they adhere to the standards mentioned. This shows the sensitivity, quality of work, assertiveness, decisiveness, being critical and creativity of the editors, though not all the corrections are the same. Statistics pointed out that the result of editing Text 1 supports this notion.

6.8.2.5 Mann-Whitney Test 5

Ranks				
Type		N	Mean Rank	Sum of ranks
Errors Text 1	Electronic	66	57.03	3764.00
	Conventional	66	75.97	5014.00
	Total	132		

Test Statistics [a]	
	Errors
Mann-Whitney U	1553.000
Wilcoxon W	3764.000
Z	-2.845
Asymp. Sig. (2-tailed)	.004

[a] Grouping Variable: Type

The *z* value is -2.845 with a significance level of p=.004. The probability value (p) is less than or equal to .05, p<0.05, therefore it could be concluded that for the conventional editing of both Texts, there is a significant difference between conventional editing and electronic editing of both Texts.

In comparison with editing on screen for Text 1, 22 texts edited from the 33 given for these skilled editors were actually much more edited manually than electronically, while 30 were more edited manually for Text 2, suggesting that editing on screen reduces the creativity. A creative disruption seems to occur

among editors with the introduction of technology in knowledge intensive work. This is also supported by Bawden & Robinson (2000) and Lyytinen & Rose (2003); the highly specialised forms of scholarship which thrive in a print-based academic culture may be under threat with the introduction of technology transformation.

6.8.3 Correlation of Statistical Data onto Model

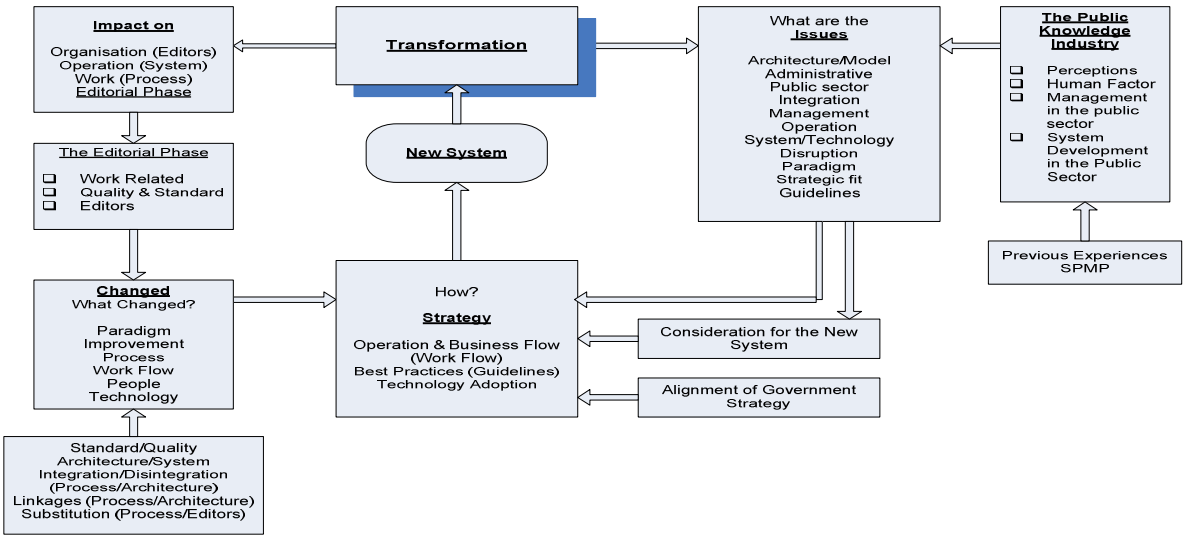


Figure 6.19 Correlation of statistical data onto model

To demonstrate the correlation of data onto the model, the model shows that in the editorial phase transformation impacts standard and quality. Standard and quality also became one of the indicators towards disruption in this phase. The statistics provided indicate a similar assumption where significant changes in standard contribute towards the development of guidelines to transformation in this phase. There are 2 different aspects of statistics provided in the thesis. First, determining the occurrence of change in standard and quality and to quantify the amount of change occurring in the editorial phase. Second, in determining the disruption occurring in the process of change by quantifying i) the time difference between conventional media and electronic media; ii) the amount of creativity by quantifying the amount of errors conducted in the editorial phase by using the 2

different media; and iii) determining the 'people' aspect of creativity by statistically test item (ii) and age.

The findings from the statistical data is mapped out onto the model by establishing and confirming that standard and quality changed in the course of transformation, and disruption also contributes towards transformation.

6.8.4 Conclusion

To determine whether creative disruption occurs, more tests will need to be conducted. This research gives an introductory view to this area and future research should include more respondents, more groups, more texts of different values and a longitudinal study would be best to capture the nature of creative editing. This would enabled any researcher to study the editing process and editing tasks in its natural environment, since the editing task takes time to complete, sometimes up to months depending on the thickness of the manuscript. Nonetheless, transformation did change the way editing is looked at, conducted and handled and results gained from technology intervention, such as,

i. Matured editors (with more experience) are more creative;

ii. More time is needed in editing electronically Text 1 and more errors are marked;

iii. For both Texts, Text 1 was edited more conventionally

iv. Based on iii, creative disruption is expected in e-transformation.

6.9 Issues and Implications on the Editors

Figure 6.19 illustrated the variables on the impact of transformation on the editors while Table 6.22 shows the related variables and proposition developed in earlier Chapter.

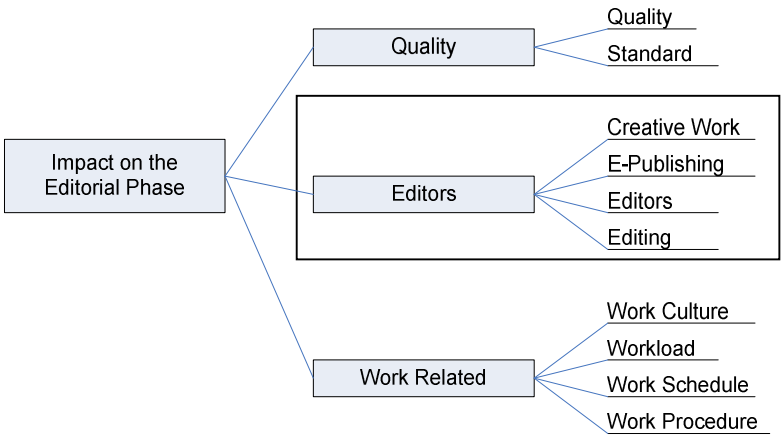


Figure 6.20 Variables on the impact of transformation on the editors.

Table 6.22 Extracted from Table 6.1 illustrating the related variables and proposition.

Versus	SPMP	Experiences-Dissatisfaction	Experiences-Unreliable	Experiences-Incompetence	Experiences-Frustration	HF-Distrustful	HF-Diffidence	HF-Indifferent	Human Factor	Automation	Negative	Sceptical	Management	Authority	SD-Contract	SD-Contractors	SD-Comp. Div.
Workload						P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Work Schedule						P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Work Procedure						P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Work Culture						P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Standard										P2	P2	P2	P2	P2	P2	P2	P2
Quality										P2	P2	P2	P2	P2	P2	P2	P2
Editors	P2	P2	P2	P2	P2	P2	P2	P2	P2				P2	P2	P2	P2	P2
Editing																	
E-publishing																	
Creative Work																	

6.9.1 Relationship between Human Factors and Editors

Table 6.23 shows the response of the editors on the issues on human factors in relation to the editors.

Table 6.23 Relationship between human factors and editors.

	Editors
Diffidence	2
Distrustful	1
Indifferent	-

6.9.1.1 Relationship between diffidence and editors

Lack of confidence among the editors is also contributed by the autocratic and top down management system of the government and a combination of the '*budi*' complex ["*It is not that I do not want it. Firstly, I was stepping on top of the seniors."* (2.169; App. 3)].

Confidence ultimately resulted in productivity and enhancement of performance and work life (Tjosvold *et al.*, 2005). According to Maurer (2001), self-efficacy (which she meant as confidence), is a key predictor of intentions and choice to perform, or behaviour to pursue a task as well as persistent thoughts and feelings during the task. Self-efficacy was revealed to be inherent in the employee development programme and intentions for future participation. For employees to feel good they should believe that they are actually capable of developing skills. Self-efficacy was associated with the degree to which they participated in on-the-job development activity and practising the skill on the job (Mitchell & Maurer, 1998, *via* Maurer, 2001). Maurer further reported that mastery experience is developed when a person has had many prior experiences in training or on-the-job development and learning experience, where higher past participation rates will lead to higher current self-efficacy. This explains why editors are not confident in the automation project, due to the lack of experience in that task.

6.9.1.2 Relationship between distrustful and editors

Trust plays an important role in ensuring the success of an organisation. The idea of being monitored by a system which will not lie put the editors in a position where they are unable to trust either the system or the management and support is needed to overcome such hindrance ["*... For this month, how much have you*

edited, how many have you finished evaluating or how many months do you take to complete only this." (2.097; App. 3)]. In this case, Information System department must recognise the importance of change management support in enhancing the success of BPR projects. According to Lai & Mahapatra (2004), IS professional must realise that change management is not only the responsibility of human resource function, but the IS department has also an important role to play in managing the change. Turnbull & Arroba (2005) suggested that employees less involved in organisational redesign process reported higher strain and lower job satisfaction, and diffidence and distrust should also be looked at as part of the stress related affect, which ultimately hampered the progress of implementation project. The appointment of Change Manager as suggested by Lai & Mahapatra (2004) is to lead a central support group to assist and integrate change management efforts and builds a technology framework to support improvement efforts.

6.9.1.3 Relationship between indifferent and editors

There is no relationship between indifference and editors, showing that editors do care about system implementation meant to benefit them and the organisation.

6.9.2 Relationship between Management and Editors

Table 6.24 shows the response of the editors on management issues in relation to the editors.

Table 6.24 Relationship between management and editors.

	Editors
Management	2
Authority	1
Government	1

6.9.2.1 Relationship between management and editors

As described earlier is the *'budi'* context, Malays are known to respect authority and hierarchy, thus the decision to shy away from further business decisions,

which they think, only applies to the top management ["*We need the change but well, this is beyond our control.*" (2.170; App. 3)]. Furthermore, being in the autocratic and top down environment, there appears to be no room for the editors to voice their opinions of change. This makes them look like lacking the ambition as suggested by Harris & Moran (1996) and Mahathir, but in reality, they are unable to illicitly express the decisions due to the adopted management system that has been handed down for many generations in the Malaysian government. The interview proved that these editors have their own perspectives, ideas and insights and foresights on what they want and what they expected the management to do. Nonetheless, this interview is the only venue to voice out their opinions. This suggests that they are ambitious in many areas but the existing government systems prevents them form being so. Maniam (1986) suggested that Malays have a strong reverence for the elders and traditional leaders, so much so that the advice and wisdom of the leaders can over-ride sound business decisions.

6.9.2.2 Relationship between authority and editors

The attachment of the editors towards the old ways of doing the work is shown much in the authority context. In the process of editorial ship, editors are also project managers, given the authority to endorse certain parts of the process and approving on matters related to further processes, transfers, payment and administrative tasks. Hence, it is difficult for the editors to let go some of these tasks, which came with the authority when transformation is enforced [*"There are forms that we filled in that needs our signature." (*2.171; App. 3)].

6.9.2.3 Relationship between government and editors

The authoritative nature of the editors are further emphasised when it is required by the *Manual of Work Procedure* and the *General Order of Malaysia*, where, certain forms, need to be signed off [*"Yes, we need that, the form needs our signature." (*2.099; App. 3)], and with the absence of a new manual or procedure to describe new methods using new technologies, the authority remains with the

editors. New changes brought reluctance among editors to let go of certain authority and it became an issues when transformation is being considered.

6.9.3 Relationship between System Development and Editors

Table 6.25 shows the response of the editors on system development issues in relation to the editors.

Table 6.25 Relationship between system development and editors.

	Editors	Creative Work	Editing	E-Publishing
System Development	-	-	-	-
Computer Division	1	-	-	-
Contract	-	-	-	-
Contractors	2	2	-	-

6.9.3.1 Relationship between computer division and editors

As the end users, editors think that the Computer Division is not giving them expert support and training that they need, to use the system. The credibility of the Computer Division is questioned when they fail to deliver to the editors the support needed ["*They should train themselves first but instead they train us." (*2.172; App. 3)]. Knowledge of the staffs of the Computer Division is limited to the know-how of their routine job. When it comes to problem solving, they find it difficult to cope and needed expert advice from outside. Overall, it seems that only one person is running the whole thing, the system analyst, who herself is not well versed with many aspects of system development which are not within her domain of work.

6.9.3.2 Relationship between contractors and editors

> "*...they are not willing to do it. They say they do not have the capabilities to do so, so we have to look into that as well." (*2.050; App. 3)

Who needs a highly paid contractor when they could not do their job? This is what is mingling in the editor's mind when they have to deal with the one and only contractor available. Editors rely on the contractor because there are no

others. One of the proudest moments in the life of an editor is when the editor received complimentary copies of the physical book she has been overseeing for months or years. With so much effort, thoughts, tears and sweat put into the publication of the book, it remains a bittersweet memory to the life of these editors and they are emotionally and forever attached to the fate of this book, especially when their name is printed in the prelims as the editor. It became part of the editors' life and each editor could recall the life history of each book in publication under their name. Even though the formal work of the editor should stop at transferring the clean copy to the contractor, when the quality of the contents has been endorsed, the quality of the physical book has just started to take off with the start of prepress. Nevertheless, editors are obliged to look at prepress and the printing of the book to ensure its' quality technically. Therefore, in professional terms, the business partnership needs more emphasising in the binding contract, in simple easy understandable words, on who should do what and a border or a demarcation line should be enforced so as not to allow one party to take advantage over the other and professional business to be carried out without political interferences.

6.10 Addressing Research Objective 2, Research Question 6.

How should future systems work?

Figure 6.20 illustrates the variables on the impact of transformation on the editors while Table 6.26 shows the related variables and proposition developed in earlier Chapter.

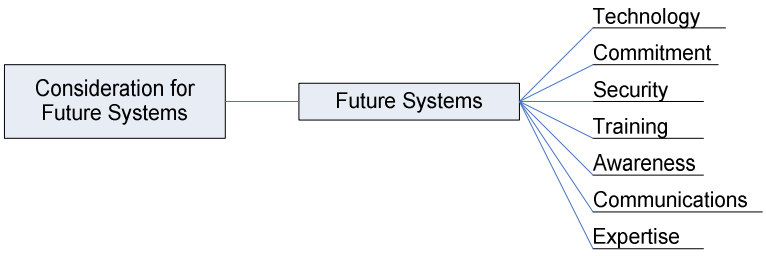


Figure 6.21 Variables on future systems.

Table 6.26 Extracted from Table 6.1 illustrating the related variables and proposition.

Versus	Management	Authority	SD-Contract	SD-Contractors	SD-Comp. Div.	Workload	Work Schedule	Work Procedure	Work Culture	Standard	Quality	Editors	Editing	E-publishing	Creative Work
Editors	P 2	P 2	P 2	P 2	P 2										
Creative Work	P 2	P 2	P 2	P 2	P 2										
FS-Commitment						P3	P3	P3	P3	P3	P3	P3	P3	P3	P3
FS-Technology						P3	P3	P3	P3	P3	P3	P3	P3	P3	P3
FS-Security						P3	P3	P3	P3	P3	P3	P3	P3	P3	P3
FS-Awareness						P3	P3	P3	P3	P3	P3	P3	P3	P3	P3
FS-Training						P3	P3	P3	P3	P3	P3	P3	P3	P3	P3
FS-Expertise						P3	P3	P3	P3	P3	P3	P3	P3	P3	P3

6.10.1 Relationship between Future System and Work Related

Table 6.27 shows the response of the editors on perception on the future system in relation to work related areas.

Table 6.27 Relationship between future system and work related.

	Work culture	Work Procedure	Work Schedule	Workload
Commitment	1	1	-	1
Technology	1	1	-	1
Security	-	-	-	-
Awareness	2	-	-	-
Training	3	-	-	-
Expertise	3	3	-	2
Communication	1	1	-	1

The relationship shows that commitment should be enforced in work culture towards the adoption of IT ["*If you always practice, it will become much faster*." (2.173; App. 3)], commitment should also be enforced in adopting the work procedures ["*We need skills and editors need to be equipped with knowledge on production, software and work procedure." (*2.127; App. 3)] and committed in

attending to the workload available ["*We will have to learn eventually." (*2.174; App. 3)].

In terms of technology, it should be adapted to fit into the work culture, it should be utilised for project scheduling and control, developed into job scheduling system and work patterns to be included in the computer system (Hallefjord & Wallace, 1998). However, sometimes, work culture needs to change as well to accommodate technology ["*…the only problem is the Track. Because if necessary, I do not like the track." (*2.140; App. 3)]. In terms of work procedure, future system should take into considerations new applicable procedures with technology and the way communication ["*It is still the same. Except by the way we communicates with them." (*2.175; App. 3)], and workload will be handled ["*…everyone of us is given a PC and that makes things easy*." (2.131; App. 3)].

Technology awareness sometimes brought change to an organisation ["*…that something must be wrong somewhere. Something must be done. I do not think this is the way we should do our work*." (2.143; App. 3)]. Awareness in the development of other companies and industries should be an indication that a change is needed. Giant companies like Intel[45], keeps track of other rival companies development programme so as not to be beaten out of the business and to keep staying at the top with innovative products.

Training is part of the Human Resource programme in the Company to supply the Company with credible and knowledgeable human resources. According to Martinsons & Chong (1999), many IT applications fail to meet performance expectations due to human factor. Furthermore, a limited role in the IS adoption process is also implied for those who are arguably best qualified to handle human factor issues, the Human Resources specialist, where they can help to remove the threatening nature of a proposed IS and shape the expectations for the associated change. The opportunity for HR specialists lies in the need to foster a healthy relationship between managers, IT specialists, and end-users. Martinsons & Chong (1999) further pointed out that HR specialists

[45] Grove, A.(1999)

must recognise and understand the human factor issues associated with the IS adoption process before getting involved. These issues are divided into 2 categories; (a) those associated directly with the process, (b) those associated with the consequences of the process, as elaborated by Martinsons & Chong (1999). HR specialist may also be most helpful to IT-phobic individuals who are typically older, senior-level employees with many years of experience in the current organisation (LaLomia & Sidowski, 1991). Though directly imposed changes may be managed cleverly, the psychological aspects of change may be problematic and it is here where HR specialists can recommend appropriate sequence of change activities based on sound behavioral principles where measures to reduce insecurity and uncertainty may be instituted (Martinsons & Chong, 1999).

Expertise in all area of development is needed to ensure the success of implementation projects. Editors complained that the management and Computing Department has not taken into consideration the users needs, thus suggesting that the division failed to identify part of the requirements of the system ["*…do not know what specifications we want….*" (2.176; App. 3); "*…how we want the system to work." (*2.181; App. 3)]. Therefore, in developing future system, these areas will need to be looked into. Lai & Mahapatra (2004) thinks that the Computer Department must ensure its' staff sophistication level in terms of maturity, management ability, work experience, all-rounded knowledge and technical skills. Furthermore, in the context of BPR, IS professionals need to develop skills in analysing the organisation and interfacing with corporate strategic function to enable them to play more effective and creative role. Lai & Mahapatra concluded that BPR benefits most from the cross-functional integration of information application (IA). When Information Systems department plans and designs IA, its emphasis should be on building a responsive IT infrastructure to facilitate the integration and sharing of data across the organisation. However, Martinsons & Chong (1999) cautioned that although they are seen as gurus in understanding the great mysteries of the technology, IT specialists commonly fail to appreciate the importance of human

factors and the user perspectives while the credibility of HR specialists is hindered by the relatively belated and limited application of IT. In all aspects, communication using technology will be faster and more efficient not only to the outside world but also among internal entities ["*We still need to communicate with the outside world to evaluate the entries…."* (2.177; App. 3)]. This is supported by Sparks *et al. (*2001), whereby good communication and direction from supervisors had a significant additional influence on job satisfaction.

6.10.2 Relationship between Future System and Standard and Quality

Table 6.28 shows the response of the editors on the perception of the future system in relation to standard and quality.

Table 6.28 Relationship between future system and standard and quality.

	Quality	Standard
Commitment	-	-
Technology	-	-
Security	1	-
Awareness	1	1
Training	-	-
Expertise	1	-
Communication	-	-

The development of future system in relation to standard and quality needs to look into the aspect of security, ["*We need to make sure it is secure." (*2.025; App. 3)]. According to Mälkiä & Savolainen (2004) on the security of content; "*Politically, personally and context sensitive content will have a strong impact on design and implementation. More sensitive content will require more stringent governance and access policies, regular review of their effectiveness and well-trained staff to handle the data appropriately. Sensitive content will also require the use of technical safeguards that ensure security and prevent improper access.*"

In terms of awareness on quality and standard, editors believe that quality product could be tailored by grooming a person towards being a specialist in certain areas, such as book design, "*...if you want to go for quality you have to be specific. This person is tailored for this and this one is tailored for the technical aspect." (*2.178; App. 3).

In DBP, more emphasise will be given quality wise in developing a work system, ["*The standard will change. If we have competitors from outside and they are quality conscious, we need to be quality conscious too. And now I think the community is more in favour of quality. Before, it was not like this but now it is happening so we are actually moving towards a better platform.*" (2.148; App. 3)]. This paradigm has not change from the birth of DBP where quality has always been looked at as an asset and DBP itself as a reference body when it comes to language. However, in book publishing, things might not be the same as the content DBP produces, where technicality plays an important part in ensuring quality and standard, hence the need to be aware of it in the adoption of new technology.

6.10.3 Relationship between Future System and Editors

Table 6.29 shows the response of the editors on the perception on future system in relation to the editors.

Table 6.29 Relationship between future system and editors.

	Editors
Commitment	3
Technology	1
Security	-
Awareness	1
Training	2
Expertise	5
Communication	2

Editors are optimistic that the implementation of a new work system in future would be a lot different than the previous ones if DBP has learnt its' lessons.

There is such a commitment to have a new system, realising that they are way behind in technology, ["*We will have to do it, so that in future there is no such thing as we do not implement it, we will lose*." (2.179; App. 3)]. Divisions under the Publishing Department, which have not have a running system is waiting for DBP to develop it for their use, ["*we are also waiting like Encyclopaedia itself, we have to wait for the system*." (2.150; App. 3)]. In terms of awareness, some editors are well aware that they need to make a move to acquire expertise in technology, knowing that technology is important in their work as well as not to be left behind by their colleagues, and also as a measure to 'safe face' and to keep a breast with the mainstream ["*I did it by myself because when I came here they all have undergone that training*." (2.151; App. 3)]. Editors are also aware that they will need to undergo training and they hope that the experience with SPMP will not be repeated ["*If we are taught, easy to catch up and friendly operation, I think it is going to be okay." (*2.180; App. 3)]. In all work areas, the person conducting it will need to be an expert in that area of his and in the case of technology adoption, editors will need to be an expert not only in the editorial aspects but in using the technology as well ["*If we have the skill, we could use it straight away. We could make up straight away in our computer. We save time in trying to check the hard copy and we save the cost*." (2.153; App. 3)]. The adoption of technology will also take into consideration editors concern over communication with the outside world, with the authors, other editors and those involved in the publishing industry.

6.10.4 Conclusion

Research concluded that the development of future system should take into considerations factors such as work related issues, the editors and the standards applied. In work culture, it is either fitting technology into work culture or changing work culture to accommodate technology, developing new applicable procedures with technology, and awareness of technology. Integrated roles of different sections will promote proper training and handling of change. In all areas of development, there will be a need of expertise to foster integration of technology including communication. Standard and quality is also emphasised in

the development of new system and in this respect, security issues should be expertly handled and procedure drafted to accommodate them. In relation to editors, in system development, commitment, awareness and expertise are needed as well as ensuring that communication into the new media is taken into account.

6.11 Overall Conclusions

This chapter has addressed the two research objectives set earlier and has addressed 6 research questions related to the two research objectives. The research question on the evolution of the editorial phase has been addressed in Chapter 1 on Introduction and in Chapter 2 on Literature Review.

Chapter 7 Discussions and Conclusions

This research explores and with the ultimate intention of understanding the issues in e- transformation in the publishing industry, focusing on the editorial phase in the public sector. This understanding was established and the phenomena explained through the meeting of the research objectives. The research set out to study different facets of the editorial phase, the editors and the organisation, which includes the process and the architectures. Within these domains, issues were discovered, and relationships examined, while other contributing factors were unearthed. These were then linked, related and further analysed to give rise to an understanding of the phenomena of transformation in the editorial phase. Finally, the guidelines are presented and the workflow redeveloped to adapt to the transformed perception in this domain.

The following sections summarise the outcomes, and how this research contributes to existing theory and practice. There are limitations to this research, also described, followed by recommendations for future research and final conclusions.

7.1 Research Objective 1

To explore and understand e-transformation issues in the editorial phase of the publishing industry.

A rich set of qualitative and quantitative data were collected. These were analysed, key themes identified and an understanding of the phenomena was established. The dominant themes were further explored. The dominant themes were;

- The main issues in the transformation are human factors, lack of confidence in the system and management, distrustful of the management intentions, no expertise in certain areas of transformation, insufficient information regarding the transformation and the system and the most problematic area is the textbook production.

- Editors have bad experience and dissatisfied with the implementation of the Publishing Information Management System (SPMP), a previous system.
- Editors were dissatisfied by the way the company addresses the issues on SPMP and the contracts signed between the company and its contractors.
- The implications on knowledge intensive products are reflected on the standard and quality of the product.
- The implications on the editorial processes are reflected by the work procedure, work schedule and communication in the flow.
- The implication on editors are reflected in their responsibilities, workload, commitment and training.
- The future systems should take into consideration aspects of transparency, human factors, contractors, workload and authority.

In these preliminary findings, the issues on transformation are identified as human factors that include diffidence in the management and system development, distrustful of the management, lack of expertise in the company to foster transformation, lack of information from top management regarding plans and the Textbook Divisions registered as the most difficult division to transform. The conceptual model (Figure 7.1) also describes the process of transformation occurring in the other editorial phases. The transformation has an impact on the product (quality and standard), the process (work procedure, work schedule and communication) and the editors (responsibilities, workload, commitment and training).

The conceptual model, based on literature findings and important themes emerging from the findings, disentangles the jargon in the editorial phase and helps to understand the phenomena, as well as keeping the focus of the research, and finally, the final model (Figure 7.2), gives further understanding on the phenomena of transformation in that particular phase, what impacts it has on the editorial phase and the issues and challenges associated with the transformation from the perspective of the editorial phase.

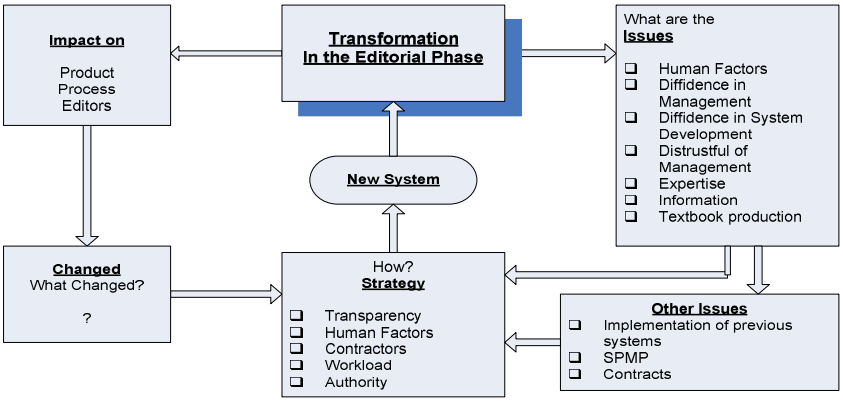


Figure 7.1 The conceptual model.

However, though changes were noted to occur in the literature due to transformation, these changes has not been clearly understood and identified at this stage of the research. A further in depth interview of 18 editors (including 3 decision makers) was conducted. An additional interview on the system analyst was also conducted. This was followed by data collection on the architecture and organisation of the company, manual and references as well as documentary research to support findings on the interview and to support data on the multi facets of the company.

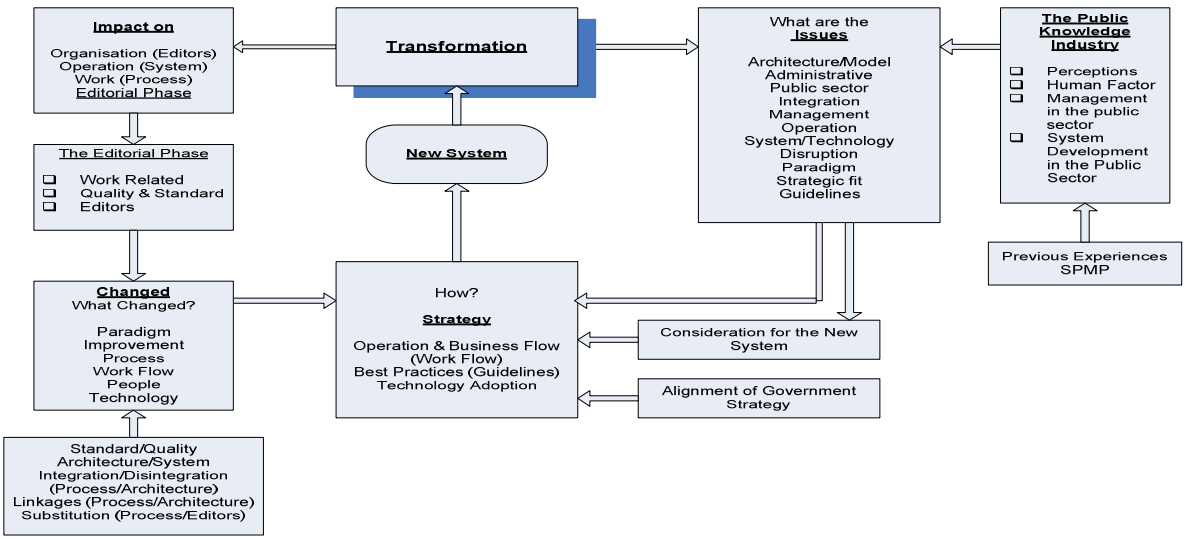


Figure 7.2 The final model.

The focused study explored further the issues, changes and impacts of transformation in the editorial phase within the context of the public sector and knowledge industry. From the data, it was evident that these issues, impacts and changes were derived from the process of transformation in the editorial phase. Exploration of the issues, impacts, change and strategies discovered several isolated issues that depart from those discovered in the areas of business transformation. Issues such as perceptions and previous experiences were not looked at as one of the main issues in business transformation but in the public sector and the knowledge industry it became one of the major issues in transformation, especially when it relates to work culture. Impact on the editorial phase discovered creative issues related to specialised and knowledge work and changes in the knowledge intensive phase uncovered creative disruption, which is mentioned very scarcely in the literature. Issues on standard and quality of the knowledge intensive phase in book publishing pertaining to transformation are an area with little reference. The strategies adopted in business transformation of the public sector are another area exclusive to the public sector. Thus, the refinement of the conceptual model reflects the phenomenon described here.

What has emerged from the focus study is a novel theoretical concept that combines the theory of business transformation, the public sector and the knowledge intensive industry. The model identifies issues, impact, changes and strategies exclusive to the public sector and the knowledge industry, as well as conforming to those already identified in the business transformation areas.

The main finding from this study is the evidence of the existence of several issues and challenges in the e-transformation of the publishing industry, in the editorial phase, as mentioned thereinafter in this chapter; and the needs for improvement in the knowledge intensive editorial processes in e-book or p-book[46] publishing. Based on these findings, it is evident that the study has managed to address its Research Questions.

The following paragraphs present a discussion on how the results of this study relate to the existing body of knowledge. The discussion is presented

[46] Physical book

according to the six research questions addressed by this research, followed by a discussion on the needs and improvements in the editorial phase pertaining to transformation.

7.1.1 Addressing Research Question 1

What are the issues in e-transformation in the editorial phase?

Findings from the focus study described the issues in e-transformation into 4 categories;

- ¤ Management Issues
  - Management
  - Government
  - Authority
- ¤ Human Factors
  - Diffidence
  - Distrustful
  - Indifferent
- ¤ Perception on Automation
  - Negative Perception
  - Sceptical
- ¤ System Development Issues
  - Computer Division
  - Contractors
  - Contract

7.1.1.1 Management issues

The Company shows concern over leadership problems and involving its' upper echelon. The leaders lack some of the attitudes described by Papadakis & Bourantas (1998), lack the strategic effects describes by Carpenter *et al*., (2004) or the characteristic power described by Ahmed & Abdalla (2000). Literature showed that intelligence, one of the business strategies that lead to innovation and technological innovations is part of leadership and lacking most in the company's upper echelon. Even if these people are well educated with higher

degrees in their own field, somehow their skills representation in change management are very reserved and limited.

From the study, in work related areas, it could be concluded that the top management is very detached with limited vision and is not strategy driven in terms of business transformation and lack the characteristics described by the three authors mentioned earlier. They too, are being affected by the autocratic, politically motivated upper level of the Government, and the autocratic system runs down the line, thus rendering them to just any other typical government servant, observing the orders and instructions. They are so engrossed in being authoritative that they tend to depart from the norms of managerial skills. Further research particularly in the government upper echelon should be conducted to explore the area where autocratic management affects the transformation of the industry and how this should be overcame. However, this research does provide a foundation wherein the top management team in a government controlled company is one of the major issues in e-transformation.

7.1.1.2 Human factors

Three facets of human factors were found to influence e-transformation in the editorial phase; distrust, indifferent and diffidence. The three facets were attributed by the work culture, where it is explained in the context of the *'budi'* complex as mentioned in Chapter 6. Diffidence has also affected work procedure and work load. However, not much has been written on the Malay work culture, thus this area has a very limited literature source. More research in the areas of Malay culture or Malaysian culture involvement in transformation is needed. Existing references on culture are more focused on comparing different cultures in Malaysia in relation to business approach.

7.1.1.3 Perceptions on automation

Negative perceptions and scepticism are issues in e-transformation of the editorial phase. Research found that this has its legacy in failures of previous systems development and failures of previous projects in the government sectors especially in DBP. It could also be true that it is difficult to change the mindset of

editors but there are ways of tackling this issues if an integrated approach by the company was taken before hand, which also lies hand in hand with knowledge and expertise of the top management and the so-called 'experts' in the areas of Human Resource, Management and Computing.

7.1.1.4 System development issues

System development issues in the company was affected by the incapability and lack of credibility of the Computing Division, the Contractors awarded the projects by the company and the content of the Contract signed between the company and its Contractors. It could be concluded that in granting a Contract to a certain Contractor, terms and condition of the contract should be transparent to those affected or it should be agreed by all parties involved in government projects. As for Contractors, Government policies of granting projects to Bumiputra companies is seen as an effort to boost the Bumiputra companies but sometimes it is also at a cost to the users when these companies were not the exact match when required criteria and credibility are needed, but overlooked. Nonetheless, Government regulations precede others and with little choice in hand, it is up to the company's expertise and good judgement to select the one to deliver the needed results.

7.1.2 Addressing Research Question 2

What are the changes and impacts of e-transformation on knowledge intensive phase?

5 types of impacts or changes were observed to occur in the transformation of the knowledge intensive phase (editorial phase). These are changes in Standard; changes in 3 system architectures (Management Structure, System Structure and Process Structure); Integration of elements across the system, linkages occurring across the super system and occurrence of substitution of elements in the system. These all pointed to the findings of the study by Vojak & Chamber (2004), whereby, all 5 occurrences were observed in the process of e-transformation and leads to the conclusion that this contributed to the effect of disruptive innovation in a company. To understand how disruptive the effect is will need further research in the industry, particularly since no empirical study has been found to

support the idea of disruption in this industry, though there were several indications that it is happening. Creative disruption is a worry in the editorial phase but further empirical data is needed to confirm such findings. Disruption of workforce is also predicted if the company attempts to transform its system to an electronic version, but again more empirical data is needed in the publishing industry to claim such statement.

7.1.3 Addressing Research Question 3

What are the implications on the quality and standard in knowledge intensive products?

1411 items related to data on quality and standard were tabled and analysed statistically, 971 items, which accounted to 68.8% were found to remain unchanged while 440 items, wich accounted to approximately 31.2 % of total items will change in the occurance of transformation. Results showed that references on language would remain intact while part of the references on house styles and procedures would change. Therefore, this indicate the need to revise standards and data of publishing houses in the course of transformation.

7.1.4 Addressing Research Question 4

Will e-transformation change the work related aspects of editors?

Much of the work related aspects of the editors are affected by the work culture of the Malays in government institution in Malaysia. Editors lack confidence in the management, the system and the changes in work style, work procedure and workload. Nonetheless, transformation will ultimately change the work style, work procedure and workload of the editors but the working culture will need to be tailored to new working environment or the new working environment will need to be tailored to the working culture of the company. Little empirical research has been conducted in the areas of the Malay working culture, thus further research will need to be carried out to understand better its relationship to transformation.

7.1.5 Addressing Research Question 5

What are the issues and implications surrounding reengineering of the editorial processes?

Editing, the main body of the editorial process is the most important attribute studied in this research; hence, the main issue in this domain is centred in this area. The study was to find out whether transforming from conventional editing to an online editing would be an issue in the process of transformation.

The Pearson Correlation Tests were conducted and found to indicate that all relationships between the number of marked items correlates with the increment of time taken to complete each tasks. The second part of the test is to run the data in Wilcoxon Signed Rank Test. For Text 1 more errors were edited conventionally, but more errors were edited electronically for Text 2. More time was taken to edit electronically Text 1, while more time was taken to edit conventionally Text 2. This indicates that the findings are not conclusive and more research and further tests will need to be conducted to determine whether editors edited more conventionally or electronically or there are other factors affecting the findings, such as time factor between editing conventionally and electronically. It could be because editor remembered what they have edited earlier, thus only transferred the memory to the second part of editing, hence clocking less time to complete the tasks and possibly marked more. It could also be that the sample sets are too small rendering the results insignificant. Hence the next part was combining the data of both tasks and analysing them as a whole.

The third part of the study was to run the data in the Mann-Whitney Test to determine whether creative disruption occurs in the editing. Results show that in editing Text 1, there is a difference between editors with more than 10 years of experience and editors with less than 10 years of experience in editing conventionally and electronically Text 1. However, for Text 2, there is no significant difference between the two age group in both types of editing. However, results also show that there is a significant difference between conventional editing and electronic editing of both Texts.

Conclusion of the statistics results shows that there is a difference in errors and time between Text 1 and Text 2. Considering that in Text 1, conventional editing was conducted first before onscreen editing, and vice versa for Text 2 and the next editing was conducted right after the first one, there is a possibility that another factor was affecting the editing work. For Text 1 more errors were marked with less time taken to complete the editing task, showing that the work was conducted more thoroughly (more creative) and yet, quicker compared to electronic editing in the group of more experience editors.

However, for Text 2, the result is not significant for the test between the age groups, showing that experience in conventional editing did not affect the outcome of conventional and electronic editing.

7.1.5.1 Disruption

An important contribution was the identification of five types of changes that are a significant addition to disruptive innovation in the editorial phase. This affirmed the findings of Vojak & Chambers (2004) on disruptive innovation in the engineering industry. Though more research are needed in this area as mentioned hereinabove, the basic and specific knowledge laid here on disruption provided the Company with an understanding of its varying consequences and effects, thus enabling the Company to determine its current position and identify pathways for future development.

These disruptions were noted in the process of transformation, which includes changes in standard, architecture, the forming of integration among existing elements, substitution of work force and tasks and new linkages across the system, which all indicate a move towards disruptive innovation of the editorial process. Creative disruption as mentioned by Lyytinen & Rose, (2003), is also noted in the editing process, though this will need further testing with larger samples to provide a more conclusive empirical data.

7.1.6 Addressing Research Question 6

What are the needs of future systems in relation to the phase?

The first and foremost is for the company to adhere to the Government IT OSS Master Plan. This strategy gives an overview on what to do in all stages of system development in relation to the public sectors. Research showed that Contractors were given full authorisation in system development and implementation. This opens up the possibility that the design might please one group of people but not fulfil the other.

The result of the research points to a hands-off attitude of the company to system implementation, where there were no commitments from the top managers, the Human Resource Division and any other affected Divisions. The indifference attitude contributed to the failure of not only system implementation but also to other projects not related to system implementation. The characteristics of the government company (buffering system, irresponsibility, autocratic) are not in line with strategy driven business ventures.

The needs of future system covered by the research are as listed below:

i. Aligning Government IT strategy to Company's system development projects;
ii. Adoption of a standard BPR method;
iii. Redesigning the upper echelon, including the appointment of a Change Manager (in line with top-down management);
iv. Commitment in work related areas from all divisions and affected parties;
v. Adoption of technology into work related areas including culture;
vi. New applicable procedures aligning technology and communication;
vii. Awareness in industry development;
viii. Training;
ix. Specialists roles of the HR Division, IT Division and other related parties;
x. Expertise in all areas of system development;
xi. Security issues;
xii. Standards and quality of product.

7.2 Adoption of Framework into Global Industry

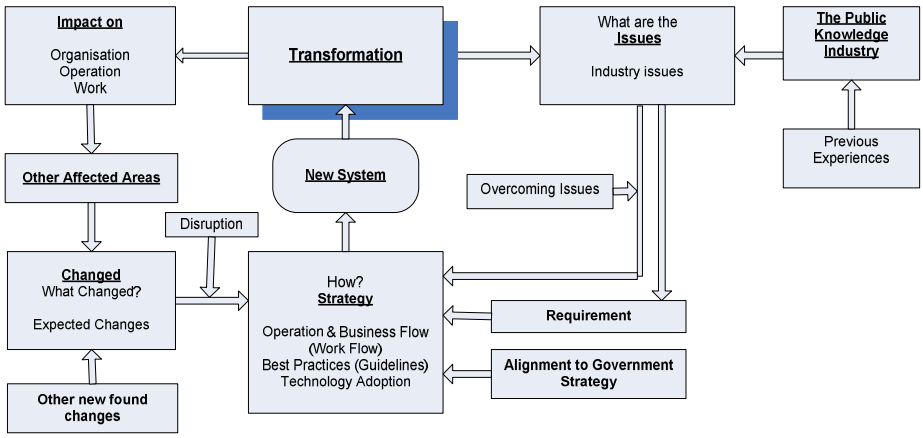


Figure 7.3 Applying the framework to the industry.

The generating of the conceptual framework differentiated the domains according to the three main criteria (issues, impact and change) that were perceived by the editors as affecting the transformation capability. This provided the view relevance to the proposition adopted of these areas within which research was being conducted and there was a need to look closely at these criteria. Pursuant to this, it is crucial to look at the relationships between several entities in the Company. The conceptual framework was kept as a focal point and progressively developed through the research strategy. The literatures on the criteria used to develop the framework were explored and the framework was synthesised with the elements that were identified as facilitating the transformation capability. This resulted in the development of the final framework. To obtain an understanding of the elements involved, relevant literatures were also explored. The framework was further amended by the analysis of the elements. This resulted in the subsequent development of issues, impact, changes and strategies which were then discussed in terms of relationships among elements, applicability and implications to transformation capability in the Company. Through the use of the conceptual framework, this view was what is implied by the study. In conclusion, the conceptual framework

provided an overall structure within which specific issues, impact, changes and strategies were identified as determining the transformation capability of the publishing industry.

Figure 7.3 gave an overview on how the framework could be applied to the publishing industry. Businesses should expect three major impact of transformation, the issues associated with it, the impact on different sectors of the industry and the changes accompanying the impact of transformation, followed by the strategies to overcome failures. Disruption could be expected, studied and tackled. Government industries should always be aware of any government strategies cushioning the transformation and this should be aligned with business strategies to transform to a new dimension of the business. Issues in transformation should be identified much earlier and strategies taken to overcome them. Previous failed system should also be used as a guide to build new strategies towards transformation. This framework should be applicable to any publishing businesses or public sectors undergoing transformation.

7.3 Applicability of Research Model

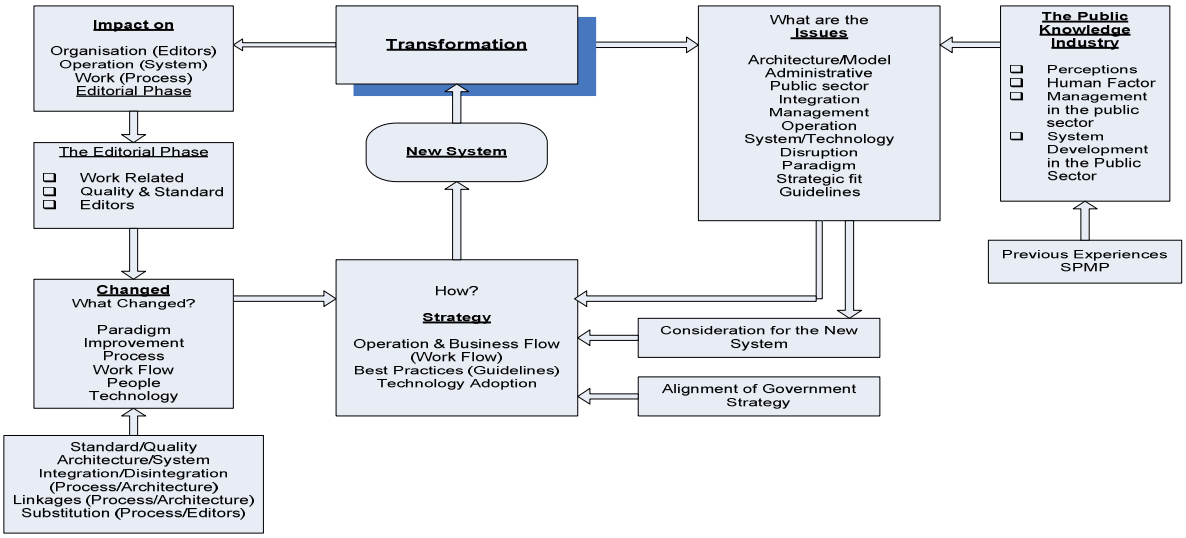


Figure 7.4 The conceptual model

The research model (Figure 7.4) contributes to knowledge in three aspects, the ordinary business organisation, the publishing industry and the public sector. In business transformation, the model demonstrates that there are issues to overcome to transform any part or wholly the business entity. These issues would arise in the form of several concerns such as architecture, paradigm management, operation etc. The hindrances brought up by these issues could be exceeded by formulating strategies and thus implemented them. These strategies would be more advantageously applied with consideration on requirements of the new system. The model also established that transformation impacts the organisation, operation as well as the process flow in an organisation. Depending on the focus of the transformation, the impacts will be most crucial in that part of the organisation, though most entities are interrelated. As indicated by the model, these impacts further generate changes in many parts of the organisation. To be successful in the transformation, strategies will also need to be formulated and implemented. Combination of strategies to overcome issues, impacts and changes will be a remedy in overcoming the hindrances in transformation. Meanwhile, disruption, if occurred in the course of transformation, will also bring about changes in the business organisation ant to ensure these are handled, strategies need to be formulated. For the publishing industry, the impact will be felt most in the editorial phase if the emphasis is on the preproduction processes. Nonetheless, if it the focus is on delivery and post production, the editorial phase will also be affected. Meanwhile a government controlled entity or a public sector, the issues will be somewhat different, more so there will be additional issues to encounter and these will need to be tackled slightly differently with consideration on aligning available strategies with the government strategies. Hence, this model explicitly demonstrates the contribution of the research towards knowledge and practice.

7.4 Guidelines for Business Transformation

The guideline that is developed is based on compilation of Government guidelines in System Development and Innovation, Company's Manual and References and Best Practices of other successful BPR projects and findings of

the research. The guideline will provide a basis to start off transformation in the public industry, through the process of transformation and managing the transformed organisation.

7.4.1 Aligning Industry Strategy with the Governments' IS Strategy

Adopts wherever possible, The Malaysian Open Standard System; defined in its Master Plan as "standards which are international, transparent, unencumbered and published, recognised and ratified by credible bodies".

The Government OSS guidelines is for the implementation of new systems and where legacy systems are involved, the Company will have to analyse the requirement of any integration, and if needed, the interfaces involved should be defined to foster the integration, and again, the Government guidelines should be referred.

7.4.1.1 Selection of software in compliance with Government's OSS

Know the description on the features, rationale for inclusion and limitations of the software, so that it could be tailored to the company's requirements.

7.4.1.2 Understanding of technical specifications and standards for OSS

This will assist in the selection of OSS and would be used within an agency's ICT implementation. This should also include greater detail on the software features, capabilities and shortcomings. Information on access governing the use of standards for data access and interchange should also be included. This will ensure availability of information and interoperability, allowing for different applications, systems and infrastructure to exchange information.

7.4.1.3 Implementation issues and guidelines

Consider the needs to be taken into account when planning for migration. Discuss the use of OSS and proprietary software within a heterogeneous environment. Provide technical guidelines for OSS implementation and migration, so that it would be understandable to those affected by it.

7.4.1.4 Revise the manual on work procedure

The result of this study showed that there would be some changes to the Manual of Work procedure, or in other companies, it is probably known as the Company's Handbook. Revise the roles and duties of all affected by the transformation or change and start with the top management and then move further down the line, for the top down management structure. This should also indicate clearly the demarcation line for each role in the manual, thus avoiding further issues in work related areas associated with it.

7.4.1.5 Revise the Company's house styles

Most big publishing houses have their own house styles. The result of this study pointed to some changes in the house styles. House styles should be revised in cases of transformation, as part of the guidelines for editors.

7.4.2 Adherence to Other Standards and Methods

Adhere to other applicable international standards or methods involving BPR, system development and implementation or other types of change. For example, in BPR there are many methods that could be applied or tailored to individual specifications, and this would ensure that any changes taken would not steer out of line, which will cost more time and money and seeded negative perceptions and scepticism among the workers.

7.4.3 Refer to Company's Requirements

Companies should comply with system development procedures which will also involved elicitation of requirements, such as mentioned earlier under the topic of "*The Needs for Future System*". There are many different views and methods but experts in this areas should be able to provide sound judgment and choices, tailored to company's requirements.

7.5 Editorial Workflow

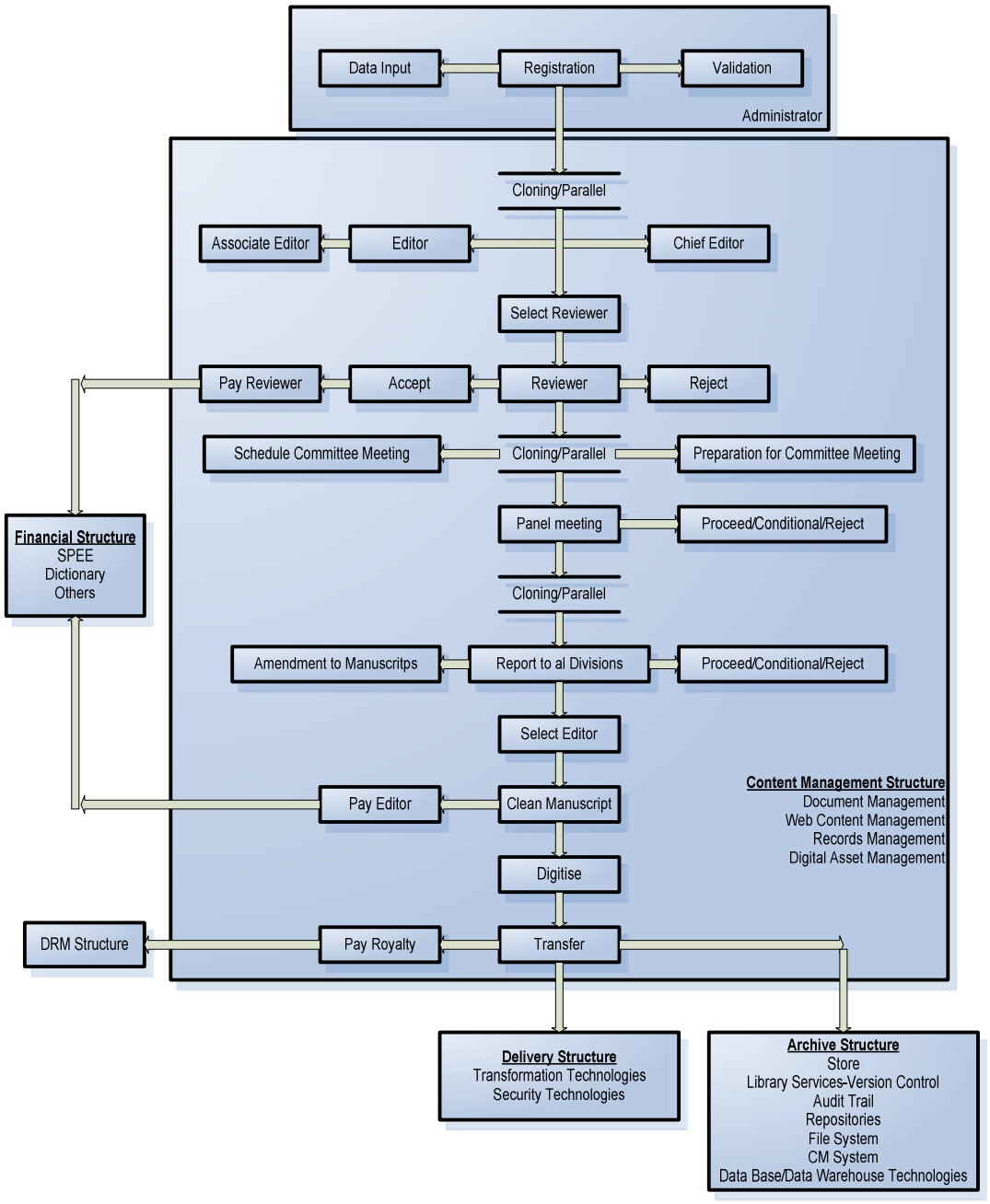


Figure 7.5 Proposed workflow.

Figure 7.5 is the proposed workflow developed for the company and it is potentially applicable to any other publishing industry. This model was developed based on literature research on current electronic publishing

application and views and findings of the case company. Nonetheless, this model is not yet tested or validated, thus it is still open to criticism. However, this model provides an understanding on the flow of manuscripts in the editorial phase after transformation.

7.6 Contributions of this Research

The study contributes to knowledge through its contribution to the literatures in the publishing industry and to the practice of editorial-ship in the publishing industry. This section discusses these contributions in more detail.

The findings in this research in relation to changes and disruption pertaining to the government agencies has been accepted to be published in a peer reviewed journal (Daut-Mohmud, D. & Sackett, P., 2005, Appendix 10), while the description of an online publishing, describing the processes or a future e-book publishing has also been presented in a reviewed international conference (Daut-Mohmud, D. & Sackett, P., 2004).

7.6.1 Contribution to Evolution in Scholarship Literature

Literature on scholarship especially editing are very few and if there are any, they are dated back to the late eighties or early nineties. This study provides an overview on the role and task of the editors dated back since the early publishing emergence, into the Middle English writings and until recent, where electronic publishing is taking over. Literature on this area is mainly compiled through the Editorial Conferences at the University of York in the late 1980's. Hence, this research has provided an extension to the evolution of scholarship literature while filling the gaps in between the periods where less literature were written. This is an important contribution to the field of editorial and publishing. It provides an insight into the history as well as the process of evolution in editorial ship.

7.6.2 Contribution to Editorial Phase Literature

There were not very many literatures written on the editorial phase, probably because e-publishing and online book publication is rapidly taking off and

changing, and people and researchers and businesses are much more interested in the product and the benefits that accompany it rather than the process itself. Nevertheless, the role of the editorial phase will not be diminished, but changed with the introduction of technology and therefore, this study has managed to give an insight and understanding on the editorial phase. An important contribution is the attempt to measure the process of editing via time and error and determining the creative disruption. This research has provided a foundation in this domain for further researches in this area.

7.6.3 Contribution to BPR in the Public Sector Literature

As a government industry, the study provided insights into some of the areas in the public sector and provide an understanding on how and why this sector is said to be laid-back. Through the understanding of this sector, then only can BPR be considered. The information system section has a reputation for implementing failed systems in many organisations, public and private. By paying some attention to the users, as suggested in this research, major systems disasters could be avoided at little real cost, along with potentially enormous benefits.

Furthermore, by using the framework presented here, a public sector can be drawn into a discussion of business transformation and how to manage it. By integrating all sectors in the organisation, it could be transformed from perceived failure to perceived success. This will make a real contribution to the business.

7.6.4 Contribution to the Malaysian Transformation Literature

The study provides insights into the Malaysian transformation literature, especially in relation to culture related issues and the government-controlled environment. There are not many literature in this area and very few were written by a government servant, thus so far, the inside story of a government controlled industry is much told by an outsider. Therefore, this research provided a detailed view from inside the gated boundary of the controlled agency. Some of the literature available focused only on the culture aspects while some focused on the business aspects. This study took the step forward to combine both culture and business to give an understanding on how these two interrelated yet different

facets came together in one organisation. Furthermore, it reduces some of the gaps in the literature especially on transformation of the public sector.

7.6.5 Contribution to Practice

Although a single case study such as this cannot provide the ultimate basis for drawing issues, impacts and changes in e-transformation of the editorial phase, this study managed to suggests that e-transformation issues, impacts and changes affects the success of business transformation in the publishing industry and also in the public sectors. With the evidence that these issues, impacts and changes affects the transformation, the public sectors and the publishing industry should take this matter into consideration when planning BPR in their company. To address these issues, available standards on BPR and industry specific standards, as well as Government strategies and standards should be observed where possible.

The research, through the methodology that was employed, the frameworks generated, the guidelines proposed and the workflow that is redeveloped, responded directly to original concerns about the need for understanding and clarity about the editorial phase in particular and in the publishing industry in general, as well as proposing a new business strategy and process strategy to the Company. A multiple method approach that was adopted for the study, consisted of in depth interviews, analysis of documentation and archival records, collection and analysis of physical artifacts. This triangulation, through the mix of techniques, data source and analytical procedures attempted to address the issue associated with any qualitative work, and the concern that there is always room for bias.

The iterative analysis of the research findings via coding, redefining and recoding using NVivo, presented a platform to validate the analysis and provided clarification where necessary.

The in depth emotional interview in particular provided a platform for editors to present their views in such a way that the study findings could position the Company in a questionable position of how it operated and the efficiency with

which it did so. This also provided the opportunity to be critical of the Company, an opportunity that was never there before. Furthermore, the independence of the researcher can be compromised through this type of interview.

This research also extends previous work, whereby most research on transformation transpired in the private sectors or the solely public sectors, by suggesting issues or changes based on attributes to individual sectors. By investigating the background of both sectors in one company, this research addresses the key issues prevalent to both sectors in one single microcosm. Importantly, this research enriched knowledge and literature on both sectors and a combination of both.

From this study, it is apparent that managers and editors alike are not well informed of the abundant research on business transformation. So far, no attempt has been made to acquire the knowledge to the extend that it could be use to possibly change the Company successfully. In this case, the development of management skills is not prioritized among the managers and editors in the Company. Thus, this research offers a useful contribution to the education of managers and editors in the publishing industry.

Finally, further contribution to that body of research that investigates organisational ambience for transformation is provided. The predominant theme in this body of literature is to identify the issues of transformation ambience. Whilst literature describes the ambience that businesses might strive to conform to, this research describes the live experiences of editors in the editorial phase in the context of the research. As such, it provides the Company with a list of important issues to be alert to in undertaking the process of transformation.

7.7 Limitation of Study

Ideally, the findings of this study should have been drawn not only from one single case study, therefore it is difficult to draw widely generalisable conclusions. It has been based on interpretations by the editors to different facets of the phase, corroborating their views on transformation. Future studies might consider demonstrating robust measures of the transformation in the editorial phase to

obtain a more objective understanding on the transformation factors that might be rationalised. Nevertheless, in spite of these limitations, the findings provide a useful basis for discussion, implementation of system by the Company and also for the future research.

It would be ideal if the issues could be drawn from other editorial phases in the publishing industry all over the world, and thus would represent a census of the industry. However, this would be outside scope, very costly, and the PhD programme is not a suitable venue for such project and it will not be able to cover the issues on culture fairly. Nonetheless, only a single case study was chosen from Malaysia because the company is the largest publishing house operating under the government. Being the largest and most trusted by the public, it becomes a reference body in the standard and quality of publishing in Malaysia, where even local Universities, conducting media studies especially in publishing, refers to the company. Hence, there is no other suitable one comparable to draw conclusion from. Furthermore, it is the only government owned publishing house conducting like a business entity.

Several facets of the editorial phase were addressed. Other facets of the editorial phase such as views from the administrative counterparts, the IT Division, the Human Resource Division, the Legal Unit as well as those from the Contractors could provide a more enriched and balanced interview data.

7.8 Recommendation for Future Research

Since the main data was qualitatively analysed, the findings cannot be fully assessed in terms of the more traditional measures of reliability and this would be open to criticism where it is taken as not being objective. Hence, future research in this area could include more measurable data as this would be able to enhance the view of reliability and objective reasoning, thus answering the critical views that have plagued this type of data analysis.

Culture issue has not been expected in this study at the earlier phase but it has emerged as an important contributory aspect of the transformation. More research is needed in understanding the relationship between culture and

business transformation in Malaysia, possibly in the areas where it has given a negative contribution towards the transformation and also where culture could be nurtured to enhance business efficiency.

7.9 Chapter Conclusion

Notwithstanding its limitations, this study has addressed its research objectives and research questions and demonstrated how its contributions have helped extend existing research and enriched existing body of literature on the subject. Reasonable and diligent effort has been taken to address the research objectives and to the contribution of knowledge and practice.

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Appendices

Appendix 1: Interview Questionnaires

Focus Study Interview Questionnaires

1. Perception on automation
2. Standards applied in the work process.
2. Architecture of the system in relations to ease of use and friendliness.
3. Integration that occurs throughout the organizations.
4. Linkages of processes and resources.
5. Substitution within the organization.
6. Issues and concerns among the editors.
7. Existing system and future perspectives.
8. Previous experiences in using the SPMP
9. On Contracts and Contractors
10. On Management
11. On Human Factors
12. Journal Paper – *Malaysia's Government Publishing House: A Quest for Increased Performance through Technology*, *The International Journal of Management Research and Practice: Public Administration and Development*, *27*, 27-38, John Wiley and Sons.

Appendix 2: Excerpt from the Preliminary Focus Group Interview

1.010	On automation
1.011	We have to know what the management meant by automation.
1.012	If you ask me, it means the paperless office
1.013	Have we started that?
1.014	Do you agree with that?
1.015	All others laughed. Oooo…, do I agree?
1.016	If it is an internal business, yes but if it involves outsiders, how are we going to be paperless?
1.017	Does that mean you disagree?
1.018	Half of me agree and half don't
1.019	Depends on the situation
1.020	Even if the outsiders are fully automated.
1.021	If it is an internal affair, I agree but if it is an external one, I do not.
1.022	What do we want to automate anyway? Our experience with SPMP goes nowhere….everybody laughed.
1.023	The system does not work at all. The system is not friendly. That is supposed to be half way already.
1.024	Depends on the situation
1.025	It is not that I do not fully agree to it. From my experience staying in Dewan Bahasa for so long, whatever we undertake I do not see that thing operational. Am I not correct?
1.026	What is the main issue here?
1.027	Implementation
1.028	Haaa..that's the thing *lah*. Whatever you have also is the implementation.
1.029	But from the point of technology, automation is good.
1.030	Yelah, I mean that is talking theoretically. But when it comes to using it, we have not proven ourselves, so I have my reservation.
1.031	Is it the system that could not fit into you or you could not fit into the system?
1.032	Right now, like us, we are always excluded from them?. We are talking about textbooks. Somehow, we could not fit into that system. Both ways, it could not accommodate all our requirements and we could not fit into the system.
1.033	Maybe if they can see to that they can accommodate to your all work system. Because you are talking about Dewan, a system for everybody in Dewan Bahasa so you cannot make us an exception.
1.034	So far now what we did with that SPMP system, we could not fit into that so we are, they neglect us…laughed…
1.035	We could only fit into the system at the end of our cycle, when the book is completed and we could report it.
1.036	That is not fair isn't it?
1.037	It is only part of the system.
1.038	SPMP is partly the system because everything is there. Filling in forms, everything is there.
1.039	In our work to publish the textbooks it involved many workshops, moving from one hotel to another, so when is the time to automate?

1.040	A lot of our work is outside the office. One more thing, if we automate, management will have to provide laptops
1.041	That will not work. How do you link from the hotels? What is the line like?
1.042	That is why I said that if it is within the organisation, yes, but with the outside, how are we to automate our job?
1.043	So the main issue is the system.
1.044	It is either the system could not accommodate with our job or we could not use the system to do our work.
1.045	What other issues apart form the system?
1.046	If the organisation wants to have a paperless office or whatever it is okay, no problem.
1.047	If we are paperless, the people who are going to use our system will have to follow suit.
1.048	For example now is Dawama. When our designer do our job, let's say textbook, all these while we have been publishing textbooks, setting using the computer, it is more than 10 years now.
1.049	We sent for colour separation, the external company would output the film from their computer. We do not have any problems with the files no matter in what form we saved them, whether it is gif file, but when we sent to Dawama, it's printing, they have a new machine and our designers have to save the files according to their specifications, pdf files.
1.050	In our case, if it is pdf files, if you reopened the files the illustrations will not longer be sharp. How is that? Why can't they accommodate to what we have?
	We have to look back to our contract with Dawama.
1.051	Even if the system that they bought is too sophisticated, yes but those who are operating it will have to be sophisticated like the machine itself.
1.052	They shouldn't have made the job so difficult for us.
1.053	If we sent our work to other external company other than Dawama, let's say our files have problems, they will tackle the problem and find a solution to it, they will not send the files back to us unless they could not open it because the files are corrupt. If the files, say we sent it in PageMaker6 and they only have PageMaker5 and let us say they could not open the files, they will get the new software until they could open the files.
1.054	But not the case with Dawama? So what problem is that?
1.055	The machine is what?
1.056	Compatible? Incompatibility.
1.057	But that is still the issues of system. Other than that what are the issues in automating?
1.058	Human
1.059	Human behavior. Attitude.
1.060	We could change the human behavior but we could do nothing with other people's attitudes.
1.061	Maam, do you agree there is an attitude problem here?
1.062	Agree, agree, agree. I have been here for so many years, that part we have not been successful. Laughed heartily.
1.063	Having to change other people's attitudes.
1.064	People come and go but you will always see that thing. Maybe, we do have that kind of attitude with certain people and when they left and then you will say, ooo hallelujah, the new replacement came, but the same attitude reappeared. Yes that happened.
1.065	Everybody has attitude problems.
1.066	Because that attitude encompasses commitment, discipline, and we have a lot of that.
1.067	And I don't know whether perception…this thing has been there from the start I think. If you get

	the wrong mentor, that kind of thing, it may follow that person…this we noticed, right Z?
1.068	If we attached someone new to this mentor and the person got the wrong attitude from the start, it will be very difficult to change in the end. We do have examples which we do not want to quote but we do see that.
1.069	That is why we tried a new kind of attachment with these new recruits (laughed).
1.070	This is the case of the wrong mentor, nothing to do with the organisation
1.071	In the old system, how do you measure the standard of editorial work?
1.072	This is textbooks, we could not gage it that way, we do not have that kind of yardstick like the publications of other books, we gage from the schedule that you met.
1.073	We are so tight with the schedule of BBT so we made our schedule to fit that. Each editor will have their schedule to fit into that one and we could see their performance from the deadline they met.
1.074	If it is the end, it is the product, the quality.
1.075	If the quality is not good and they fail to meet the deadline of publication, they fail.
1.076	Because here we are quite liberal in the sense that we do not care how you do it but we know at the end of the day, you must meet the deadline and the quality that BBT will accept.
1.077	If they need it in pms you do not give them only rough sketches you send it to them and you claim that is pms. Because we all know what they expect so we need to try to meet that.
1.078	We do not care how you do it, because that is what we want.
1.079	So if you automate the standard remain the same?
1.080	Same, we do not go by certain numbers; we gage that person by how many pages a day.
1.081	And our work procedures, we do not have a standard arrangement time wise; you have to go through this, this and this, no.
1.082	Our work is done rather simultaneously, you do all those things like you get the editors, you get manuscripts, you valid, evaluate but we do that simultaneously.
1.083	As you edit you also evaluate and then you sent another evaluation and you come back with corrections.
1.084	Yes
1.085	And the editor does not just edit, but they look at films, printing, colour separations…
1.086	It is different from the rest.
1.087	And then we are expected to do so many things..
1.088	That includes monitoring the companies, not only monitoring Dawama.
1.089	By right, it is Dawama's job to monitor other companies. But right now, we have to monitor Dawama too.
1.090	Now they have a committee on these companies, And we have to monitor these companies too, we need to be there.
1.091	Is that an order form the top management or that comes as a package together with the textbooks.
1.092	No, no. It is not like that at all because by right, every one of us knows our job and responsibilities. OK, Dewan Bahasa's job is this and this. Dawama this and this.
1.093	When there are any complaints on the companies, it is Dawama's responsibility towards the companies and these companies has their own jobs as well.
1.094	But as it is now, this people's attitudes are you know, like, ooo…this is all the responsibilities of the editor, so do you see, the whole burden falls on the editor so that makes the editor in this textbooks division over burdened with responsibilities.

1.095	The organisation could always get new staffs but the responsibilities you know, that you have to monitor here, monitor the companies, monitor even the printers….
1.096	Really? Is not that to be done by…
1.097	If anything goes wrong at the printers….Dawama is there, because they are the ones who sent out the books, they are the ones who choose the companies. And that is not our job anymore.
1.098	Is that because we are thinking about the quality?
1.099	Because the essence of the editorial what the editor wants, if the quality is not good, it is the editor who will be bashed.
1.100	Bashed and quashed.
1.101	And then after that everyone else is complacent, right Z?
1.102	It is like ooo, not to worry, the editor will do that. Even when the manuscript was sent late to BBT, we were the one queried as if it was our fault.
1.103	You do not know what that right, we were about to compete, manuscript reached BBT 4 minutes late so we were disqualified.
1.104	The investigation you know, we were subjected to this committee of investigation, as if we are the guilty party.
1.105	And they will find loopholes to blame us just because we have set in our planning that we want to send the manuscript say on the 8th.
1.106	So we asked the editor to have the manuscript completed by the 5th so that we have 3 days to check together.
1.107	But you know what, in text books, up till the very last day, they were supposed to submit the following morning, that night they were still doing the work, so when we sent it to PKS to be sent to BBT before 12, they had to send it early in the morning, 7.30…and the last before 10.
1.108	So what about that schedule that we made with the deadline set on the 5th.
1.109	The reason they gave is that because the book could not be completed on the 5th that is why it reached BBT 5 minutes late, can you believe that?
1.110	But actually, what is the real problem here? They could not get the signature of the Director; they could not find the Director that day.
1.111	Why didn't they ask for it much earlier?
1.112	They only did it on that very day.
1.113	Because you could get the signature 2/3 days earlier. They choose the very day to send the manuscript to get the signature.
1.114	And we have actually reminded them on that.
1.115	We have reminded them.
1.116	This is not because of communication breakdown. It is simply on attitude.
1.117	Complacency. Everyone else was doing nothing because here is one scapegoat they can always use., the editor.
1.118	Do you think automation can solve that?
1.119	All quickly said a big No and laughed…. That is very prompt.
1.120	It will turn us into robots later on.
1.121	Can those who are going to work with us work like us? Deadline like us? Running here and there like us.
1.122	They already switched off the light by 4 pm. We are the ones who are running everything to fasten things up. We keep telling ourselves, be quick, we could still do it before 4 p.m.
1.123	But when we got there, they told us it is already too late, they have closed down for the day.

	They have not tried it yet and they said it is too late. That is the attitude problem.
1.124	You take us to represent Dewan Bahasa or you take us as Bahagian Buku Teks? If you take us to represent Dewan Bahasa, you should not.
1.125	Because you all are so different from the others. The other side of the camp, the other side of the border.
1.126	So we are like the PLO's.
1.127	No matter what, after tens of years nothing resolved. Still the same. And the sad thing is I am going to retire.
1.128	I thought things are going to get better, honestly.
1.129	I thought that comes when you were around, you don't have to pay a single cent of penalty, now you are back to it.
1.130	Now we are back to BBT looking at us as one who is inefficient you know, an unreliable publisher and they keep taking away title after title from us and leaving us those that they don't want, and which other publishers don't want.
1.131	For all those that will make money, they have a ready publisher, we think they always have a ready ones, even though they make an open system but I think the whole thing is they are taking from us to give to other companies.
1.132	It is coming back to that and I feel so disheartened because we have grown bigger and bigger from a unit in SSK to our own Division and now it looks like we are going to close shop because I think we may not have any textbooks to do, except maybe the religion and the BM, that sort we are left with.
1.133	Even with that you know, with those Malay companies that keeps demanding from BBT, right Z, maybe they'll say we are as good as Dewan Bahasa…, so why shouldn't we take…to ….us…
1.134	…but what about that the management said recently, that we are not going to make textbooks anymore, we are going to what?
1.135	Academy
1.136	It was what Hj Bakar said that the Ministry said we do not do all those textbooks anymore. We are moving back to do what, emigrate into what?
1.137	Oooh…that one
1.138	That is all due to that, that they are going to take all those things from us, so…
1.139	As the Institute of National Publishing
1.140	And another thing is, our division, they blame use for being so specialised in our own field.
1.141	…they have never thought of all our problems.
1.142	We are the ones who has to do the paperwork on how to solve these problems. How to get people to work for us, to push people working for us.
1.143	Management never thought of this. For example the Human resources, they do not think like us, when they say they are going to get 10 staff, they do not think on trying to find the ones that are really expert in this area.
1.144	There is none I guess, all the experts in Dewan are either the older generation or those already taken by other organisations…people come here to learn.
1.145	But the textbooks problems are the problems of the organisation, not only the division.
1.146	Now, is the typesetting work done by Dawama? We do not do that? Do we subcontract it to them?
1.147	No that is the agreement with Dawama, when it was privatised, that comes with the job.
1.148	But actually, when you say automate the typesetting work could easily be done by you, because when you are already on this you have the frame you have the site everything you just click and everything will come out.

1.149	If it were automation, it would have been better if all were under the organisation.
1.150	OK.
1.151	Provided we know how to do it. But we have to be really good with the system.
1.152	Yes, if we want to automate, we have to master the system too. So when you say automation, editing should already be done online, and if you edit on an already set screen, isn't that possible?
1.153	It is possible.
1.154	And how do you see the clash here in communication with Dawama in that sense.
1.155	Everybody Laughed. There's no chance, no chance…
1.156	None…
1.157	But at least they have to complete that.
1.158	I was inform that there is no clause in the Agreement with Dawama that says that the contract could be revised.
1.159	No.
1.160	Normally a contract will say it could be revised after certain years.
1.161	Due and Retract…None.
1.162	In any contract there should be a clause on that…There is really none..
1.163	All said No.
1.164	When I asked, they said it is confidential and I have to ask Hj. Bakar about it.
1.165	They will not let you have it.
1.166	No they won't.
1.167	So you will never know what is in the contract. But we assumed nobody thought about reviewing and retracting.
1.168	I was told earlier that there was no clause in the original contract that says you could review the contract again after certain years which is common in any contract made.
1.169	We do not have it even with BBT right? I think that is not a mistake, it was intentional.
1.170	By right we should have that. Every year when you do not perform you are penalised…
1.171	That is what the contract is all about anyway. Only in marriage, it is not like that?
1.172	You have that even in marriage when it says 40 days or is it 4 months…says, within 4 months ….it is at the back page of your marriage certificate…within 4 months if you wish to reconcile….so even in marriage we have that and it is unbelievable that we do not have such thing in a contract between two large organisations that involves a lot of money…
1.173	They never ask us about our procedures, that is why that thing could happened…how come it's profit is more than 70% when our manuscript development cost is more than the production cost?
1.174	But the most important thing is they don't know what that is …
1.175	Ha, what the intention is.
1.176	Ha, from the start right? …between this and…eer right?
1.177	Why should they keep it such a secret? Such a big secret. Well even if it is confidential, those who are involved should be given the right to know.
1.178	Hush…hush..
1.179	Another thing is the problem on authority. If we automate probably, there will be no problem on authority. As it is now, you need the signature of the Director every time, so when you automate,

	only the computer printout will be valid.
1.180	Computer printout does not need signature right?
1.181	So how do you see that?
1.182	Broadly, they may not need to be signed but they can assess it right?
1.183	They can assess and evaluate.
1.184	Access and evaluate, that is when they can filter, suspend or call you up.
1.185	Is that possible?
1.186	It is possible but you cannot say that it goes unchecked somewhere along the line. When we develop books, we are talking about the end product, so definitely we…
1.187	Except that, in the flow system they have to stop here and then only they flow to another.
1.188	They have like a gap, like the water gap. The stopgap. You stop, look and then go to the next one..
1.189	It means that it has a filter system.
1.190	At the place where the gap is, there is a filter, otherwise can you imagine things like payments and so on can go unchecked.
1.191	But maybe because in the procedure the filter is not determined, the evaluator is not determined, that is why people could do a hanky-panky job. At least, at each stop there is a filter.
1.192	So in anticipation of all those things, we cannot say we cannot have that kind of thing you now, yes we can, so if we want to be fully automated, we need to have in mind all those things, the stop gap to ensure no hanky-panky…
1.193	If not people could embezzle a lot of money, it is very difficult without the filter…
1.194	So what do you think the top management should do when they say anything on automation?
1.195	That question should not be asked at all because they should know what they should do…laughed…
1.196	When they said it sometimes you got the feeling that they do not understand what they were saying.
1.197	Actually, they could put their authority wherever they like because other people will do the system for them, Okay I want to authorise it here, to endorse payments and so on…
1.198	I think they have not thought on that yet..
1,199	That is right, that is the right word. Because I think, sorry to say it, I have been in Dewan for so long, because sometimes these top people they never think at all, that's why… they don't think…
1.200	They just follow..
1.201	No they expect us to think for them, they help to endorse what we think.
1.202	Yes.
1.203	They are the decision makers.
1.204	They should be, they help to endorse documents, they are not decision makers, they are endorsing agents.
1.205	We solved the problems, we do the paperwork.
1.206	Because, you see, planning, once upon a time we have Director of Planning and what so ever, he planned nothing, we did the planning, we sent the plan to him, yes and they just looked and endorsed.
1.207	We were the ones who planned everything.
1.208	So right now, whatever we want to do, even for this automation or whatever, you will see, that the ones who will be thinking about it, who will be designing it, this whole thing will be us, you

	just have to present it to them.
1.209	What they do is just one or two questions, they might not even understand it, so after that they will consult those 2/3 people whom they think understands, to explain to them, they come pretending to understand it, okay, nok, nok signed, everything is ready, could be proceeded…see…because I am going out, I can see all these things….
1.210	They don't even ask what we would like to do.
1.211	Because Head after Head, this is what I have seen.
1.212	That is why we cannot go far…Our Heads cannot go like becoming somebody outside of the organisation, no way, other people can after they have retired became somebody at Sime Derby or…
1.213	They will have to learn before they start implementing anything.
1.214	Because they hide behind us.
1.215	That is the attitude problem…
1.216	The complacency.
1.217	Technology wise, do you think we are ready for automation?
1.218	Ready, when they are ready, we are ready…
1.219	To be ready technologically, we have to equip ourselves first. Talking about people, we have to talk about people first before we talk about technology, and that we are not ready.
1.220	From that point of view, Dewan lacks a lot…
1.221	Because we could not see the planning in place.
1.222	There is no planning on that?
1.223	Planning to increase performance and efficiency.
1.224	We could not see the planning towards that. We are not going towards all those things. There is no planning at all. We are still here. We are not going into implementation any thing, there's none.
1.225	Even the information technology division, people there are not knowledgeable. You compare to other organisations. It is very different.

Appendix 3: Samples of Focus Group Interview

Items	Ref. No.	Interview Data
Management	2.010	I think it is the right way, if DBP gives the real support to the online system, I think that is the best solution for the editorial phase.
	2.011	To them we are the minorities.
	2.012	Our focus should not have been born yesterday. We were not born yesterday; we were born 50 years ago. Half a century ago and yet these routine things, when I was in Management, I always think of how to settle these routine things so that we will not be bug by this matter and we can spend more time thinking about big things.
	2.013	…the management team, let us say they do not know a thing about it or if they do, not fully knowledgeable on that matter.
	2.014	…so far, this has not been materialised yet in Dewan. Look, until now, there is still nothing. We do hear rumors on automation project but where is it? Where?
	2.015	If the top management does not use the system, nobody will. There must be a kind of push. There must be commitment from the top management.
	2.016	… we received one payment or whatsoever, or we have received it, we only inform the writer in the system. We will follow with an official letter.
	2.017	I think we need to have letters. Because when we appoint someone, it is no easy job. Only the CEO has the authority to appointment anyone.
	2.018	If we compare it to the banking system, computer printout needs no signature, yes that is valid. It is valid according to the management of the banking institution. With us…I do not know…if that is the case, let it be…
	2.019	…we are government; in the finance division we have already implemented that. Our statements have no signatures. They might have cover letters though…we still have that.
	2.020	… you are standing on one institution supported by the people. You have to give back.
	2.021	Books, book publishing, why are there no subsidies? Isn't this a knowledge centre?
	2.022	The bosses are always like that. This always happened because we have no right to make the decision.
Perception	2.023	The only proof is on the editing, how you would proof that the manuscript is badly written, you have to do a lot of editing on it, before we could show a lot of proof on that. But on screen even if you do 4-5-6 times of corrections, in the end what you could see is the final version. We print out the final version but no one could see those early stages that need a lot of editing.
	2.024	…what we know DBP is now, the top management only mentioned about automation, e-government but the reality is, we do not need letters anymore; communication via the e-mail is more than enough. But, when we communicate via the e-mail, it is as if there is no communication at all.
	2.025	We need to have a principle on implementation wise, it has to be fully implemented and it has to be able to increase our productivity, increase our quality and we need to make sure it is secure. If we are not careful with

		technology, it might not facilitate our work, but increase the time factor.
	2.026	...it is also true that there are still many editors who could not use the computer. How are we to go online when many editors could not even edit on screen.
Human Factors	2.027	XXXX will do the typing; everything will be done by XXXX (the typist). Sometimes when we dropped in at her work station, XXXX is asleep.
	2.028	... when I came here, nobody tells me whether I should use the system or not. So in the end, I only use it to register my new title, that's all. The other functions, I do not use at all.
	2.029	We are doing all these stupid things... things have not changed since the day we join this organisation.
	2.030	These editors still want to use hardcopy.
	2.031	We are lazy to enter too many data because we are use to using the file, we do not need to enter any data.
	2.032	... it will save DBP, not many manuscripts to edit and less clutter. I do not use the system because it is too new for me and I am afraid that if I do not save it, it will not print what we have marked.
	2.033	On screen we could scroll over and over, but on screen, if we delete something from the original, we could not see again what the original is, we could not see what is down there.
	2.034	The automation might be at the production side. But we (editorial) do not see it goes fully.
	2.035	I must print first for me to check thoroughly, even though I can read it on screen but I must have it printed first, I will read it thoroughly and then make the amendments then only I will feel confident.
	2.036	... when they say we should automate, maybe to them it will be easier for them to monitor us.
	2.037	... we do it first, and think later, the management of the system/project is not right from the early stage, that is why we have all these problems when we want to go online.
	2.038	The Computer Unit, they only want us to use everything first, they do not care whether we like it or not.
	2.039	The others have not been given the adequate explanation, including editors in Dewan itself. We were never given the explanation; the multimedia unit has never given explanation on how to use the online system, which is why people still do not use it. That is the problem. If we have been given the explanation, maybe one or two would have tried it and give feedback. Even though the system has been running for one year, we have never been given the explanation.
	2.040	Sometimes people do not even log into the system.
System Development	2.041	In DBP, there are two components. One is the external company that is doing the production work and the other is those doing the editorial work. So what needs to be done is a compromise in implementing a system. The system must be compatible to both. It has to be compatible with DAWAMA, meaning it has to be suitable. We need to discuss on this thing first.
	2.042	... need to have a principle on implementation wise, it has to be fully implemented

		and it has to be able to increase our productivity, increase our quality and we need to make sure it is secure.
	2.043	When they built a system they must build a system that is friendly to everybody, to the users.
	2.044	We need upgrading in infrastructure.
	2.045	When you ask them, they are not much of a help too.
	2.046	Whether we would like to release it conventionally, print it, via the internet and the public could access them or we only keep it in the system. By that time, maybe the top management need to review back the contract.
	2.047	You (DAWAMA) do not take the function, but now you want to act like the publisher. When we make a schedule, they overwrite it. That is not right. They are not supposed to join the Meetings on JKP or JKE, to determine the book.
	2.048	The 12 year concession? Well, what we were told on the 12 year concession with DAWAMA is what we knew on things before automation will be fully implemented.
	2.049	It is because they determined it; they have the authority to design the book. We are only editors, who are we to determine those design specifications. Let us just say in our work, six and a half by nine and a half, centralised, all caps, running head, folio numbers centred and so on but over there, these things will be changed.
	2.050	...from the aspect of quality control, the PKS who is in charge of that in the print publishing, they are not willing to do it. They say they do not have the capabilities to do so, so we have to look into that as well. So our editors, we have to look at the intellectual aspect as well as the technical aspect. And that shows we are capable.
Standard	2.051	... the standard will remain the same if we automate.
	2.052	... based on the number of manuscripts a year for each editor.
	2.053	In the conventional way, we measure based on how much editing done annually, and with consideration on quality.
	2.054	We need to have a principle on implementation wise, it has to be fully implemented and it has to be able to increase our productivity, increase our quality and we need to make sure it is secure.”).
Work Related	2.055	Normally what we do in DBP other people do (proposed) the system and other people use it. We are so comfortable with the old way of doing our work.
	2.056	...even though they have been given courses on onscreen editing, only a few editors do it. Most, especially the senior ones, they are so used and still edit the conventional way (on paper).
	2.057	... to change to something new, that might take time...
	2.058	... this is not a management system. If you do not use the system, you will fail. That is the catch. Because this is not a system on how you do your work. This is a tool to produce the product. If you do not use it, you will fail.
	2.059	... what we are doing now is as good as producing the clean manuscript. I think maybe the proof phase, I do not know. Maybe we would like to directly publish from here; we do not need the proofs anymore. Not anymore!

	2.060	We will change the work procedure for the purpose of automation. It will change. We will need to skip some of the steps in the work flow.
	2.061	We do not go backwards and forwards along the steps, as we like. It must be according to those already determined in the guideline until it is published. There are editors who have not paid their writers yet when they should have done that much earlier.
	2.062	We will cover all types of project. Now we are into the translation project. We are done with original works, how we handle original writings from its conceptual stage, then we register, we plan, we appoint and we schedule the project, we assign the work, we got the materials, we evaluate, we edit till it is clean. Today the number of clean manuscript is 5, 12.01 and at 12.02 others could access it already.
	2.063	… there will be stages where we could bypass or eliminate, for example in publishing, the proof reading. If we automate (the editorial phase), we could straight away go online and we do not need the proofreaders and furthermore, what we supplied are actually in discs in clean form and it will be processed straight away.
	2.064	…. After the evaluation, we have to edit, but not only one or two entries, hundreds and thousands, so we are bind by our target date…
	2.065	… we handle too many projects, we ourselves we do not even, though we are editors, our primary work is editing of manuscripts and we do not perform that, we give it out to others to do it.
	2.066	Prepress is no longer included now except that we need to register, we need to update…
	2.067	We do the acquisition, and that is already a burden. Then we have to get the writer, the manuscript, we need to coach the writer, get the manuscript, edit, discuss with designers, which is a lot of work. And then we have to think about their job, adding more burden.
	2.068	The computer unit, they only want us to use everything first, they do not care whether we like it or not.
	2.069	Our style of work is to do it first and think later.
	2.070	… from the point of delegating further work that will be between us and the writers, but the first letter must be there.
	2.071	We are lazy to enter too many data because we are used to using the file, we do not need to enter any data.
	2.072	… if we proceed and we would like to publish it in the web for others to use, we will have to update it.
	2.073	…this is very typical of Dewan… (on project failures).
	2.074	…our organisation does not look at all at the real details, our requirements that is why they themselves do not understand it.
	2.075	…we ask for a service from the private sectors….
	2.076	Or maybe now we are bound with the 2 ongoing projects which will be published by 2006.
	2.077	In Oracle, you can write your own code and I do not think the contractor is competent in writing codes. What I mean is the software is flexible; you can do much more for SPMP. Since we could write our own code, like developing a website, we can write what we want for SPMP.

	2.078	… editors do not like it,… So they have this scepticism on what they enter into the system…
	2.079	… we could do the typesetting but sometimes we do not need to determine the specification in the form of format and basic designs because at that stage of typesetting it will change.
	2.080	We discussed, we made suggestions, but the designer determined the look of the book, it is their ideas.
Editors	2.081	They have to learn. Shake up or shake out.
	2.082	… to change to something new, that might take time.
	2.083	… it is so difficult to publish one book. It took up to 18 months to publish a book, is it that difficult? The newspaper is much more; it is like a very tough pin. So the reporters got the news and sent it to the editors to be edited, checked, proof read and finally set and published. Yes and the newspaper are not that thick, just like a book.
	2.084	Without the feedback from us, in reality, we should give them the input first, it is like this…this…this…but the details…we ourselves as part of DBP should point out this…this…this….Ha…that is how it should be…
	2.085	… the editors themselves, with their knowledge, the software available, what we have is only Word processor…other people has been using Apple, using PageMaker, we are still stuck with Word.
	2.086	…many of our editors are not familiar with editing on screen. If they edit it on screen, it will take too much time. So when they are not familiar with it, they do not use it.
	2.087	… because of the uniqueness of DBP, it develops the scholars. Dewan's staffs, if they take good care of their capabilities, they matured with Dewan, their skillfulness is associated with the institution. People like Usman Awang, is automatically linked to DBP and DBP is automatically linked to Usman Awang. Other institutions are not like that. The skillfulness is developed in DBP.
	2.088	But it is such a shame that the skillfulness is not just not accepted by DBP. It is such a shame, you know. Because the skills in our world is not administration. Administration is routine. But our skills must come with years of experience. The skills in editorial, you could not get in 2 months. The skills in language, literature, it's the kind of skill you will not get in a short period.
	2.089	From the point of its essence (editorial), it will not change. For example editing work, the language will still be the same. The language will still be based on books (reference) and Gaya Dewan. That will not change. In writing bibliography, the convention on writing scientific names will still be the same; the presentation will be the same. Only our work procedure will change.
	2.090	I do prefer the old method of editing on paper because when we print we could see it sequences, at least one copy must be printed out because when you have compiled the whole thing out, and when you need to find something or somewhere the mistake is much easier to identify on paper.
	2.091	Because we were train from the start to edit on paper. What do you think? Why are editors more creative editing on paper.
	2.092	With the onscreen editing, I think it is a lot easier but sometimes when we read on the screen compared to reading on paper, we see more when we read on paper.

	2.093	If we do online editing, there will be no proof that we have done it. Manually, you could see the proofs on paper.
	2.094	… even though they have been given courses on onscreen editing, only a few editors do it. Most, especially the senior ones, they are so used and still edit the conventional way (on paper).
	2.095	In Multimedia, it will only be one, only the e-book. If there is a special requirement, even though it has been published online, we will POD it. If there is a demand for the hard copy, we will ask the company to POD it.
	2.096	And then to access the materials, he may have to pay for a charge. The amount will be determined by Dewan Bahasa.
	2.097	…. For this month, how much have you edited, how many have you finished evaluating or how many months do you take to complete only this.
	2.098	We need the change but well, this is beyond our control.
	2.099	Yes, we need that, the form needs our signature.
	2.100	They should train themselves first but instead they train us.
	2.101	…they are not willing to do it. They say they do not have the capabilities to do so, so we have to look into that as well.
SPMP	2.102	That system is sooooo… rigid!. (Stressing her displeasures).
	2.103	Not friendly. (And showing a big frown).
	2.104	This system is a heartache. (Putting her thumb down).
	2.105	… problems even logging into it.
	2.106	… when I first joined DBP, the system has long been abandoned.
	2.107	The manual if I want to use it, it is no use.
	2.108	… without the SPMP we still produce our product.
	2.109	but it is not user friendly. Good purpose should be accompanied with user-friendliness.
	2.110	… there is no talk on SPMP in terms of how to use it for those who has not used it, or maybe on what else should be done because there maybe new development. These things should be told to us so that everybody could use it and no one is left out.
	2.111	They did install it for us but we do not use the system. Because, according to the boss, the SPMP could not do things, he said that because the system is not friendly.
	2.112	I happened to be the coordinator for SPMP for this Division but whenever we came out with problems of the SPMP, what they will say is they will look into it. (Interviewee 4)
	2.113	While doing this editorial work, sometimes we need to make reports, it could be parliamentary report, unit report but we still could not use the system, it is so very unfriendly.
	2.114	I do not understand it; I have to learn it several times.

	2.115	Our planning is sometimes, well … sometimes we need to be flexible, we need to move forward and we need to look backwards. So with the SPMP, that is what it could not do.
	2.116	… and if we shift from one window to another window, it could not do it, if it had performed like a web-based system, we could have all the links and not waste our time to open and close the windows every time.
	2.117	… if we do our work online or manually, we need to complete the work then only we could enter the data. If we have sent our manuscripts to the printer, we said in the system we have sent it for printing. It means that we have to enter the data many times, log into the system repeatedly and finally people just forget to do that. When the system needs to be updated, it became very difficult.
	2.118	I think it does not provide enough support for the editors. If there is no SPMP, we could still do our work. We will still have our ISO system, we have our records.
	2.119	Sometimes in the project file, these data are not complete, some detailed information on the manuscript were not entered.
Future systems	2.120	So to increase product is no longer a big issue but market is also important nowadays, so we are moving towards market oriented and we have a lot of competitors as friends with the same aim of disseminating literature and language, we need to move with the same inertia as them.
	2.121	If the Department does not give us the support, so we are like, … we do it on ourselves, and others do not. It is such a waste, it is a new thing and people do not want to apply it in their work.
	2.123	For this automation, one is for the management. The management side of it is on progress, statistics and reports. If anyone calls them to know on statistics, they already knew up until who the editor is. They also need to use it then only they will know about the system. It will be part of the work process. So, one is on management of publication and the other is on the process itself. The top management is more on the management of publications.
	2.124	… employees will have to be well verse…
	2.125	… what we know Dewan is now, the top management only mentioned about automation, e-government but the reality is, we do not need letters anymore. Communication via the e-mail is more than enough. But, when we communicate via the e-mail, it is as if there is no communication at all.
	2.126	…the top management themselves are not from the generation who are used to computers. That is why a change is difficult for them.
	2.127	We need skills and editors need to be equipped with knowledge on production, software and work procedure.
	2.128	… they just call the selected company that Dewan has given. OK…since the company cater for that (the whole development). OK, you do it all, they do not even know in depth about maintaining the system, so if there are anything wrong with it, they will just call the company.
	2.129	That depends on the type of data but if it is only books, there is no problem. And or files, we could categorised them. Between the editors and the production line, we need to categorise them too, for example there will be read only or read and comment, you do not need to amend it.
	2.130	… when we already have our own password we could not access other people's data or system, but ours can.

	2.131	… everyone of us is given a PC and that makes things easy.
	2.132	No, there will be no problems. These will all depend on the technology. If the technology is there, we will appreciate it very much.
	2.134	I think to fully automate we need to take into consideration several things. The first, the server that we are going to use should be independent. For publishing, there is a server on publishing which others could not interfere with and the outsiders could not access it. This will be only for the publishing.
	2.135	If we were taught, easy to catch up and friendly operation, I think it is going to be okay.
	2.136	… right from the start when we joined this organisation we were trained to edit on paper. I do not know why, it is too subjective and there are no data on that yet.
	2.137	If you always practice, it will become much faster.
	2.138	We need skills and editors need to be equipped with knowledge on production, software and work procedure.
	2.139	We will have to learn eventually.
	2.140	…the only problem is the Track. Because if necessary, I do not like the track.
	2.141	It is still the same. Except by the way we communicates with them") and workload will be handled.
	2.142	…everyone of us is given a PC and that makes things easy.
	2.143	…that something must be wrong somewhere. Something must be done. I do not think this is the way we should do our work.
	2.144	…do not know what specifications we want…
	2.145	…how we want the system to work…
	2.146	We need to make sure it is secure.
	2.147	…if you want to go for quality you have to be specific. This person is tailored for this and this one is tailored for the technical aspect.
	2.148	The standard will change. If we have competitors from outside and they are quality conscious, we need to be quality conscious too. And now I think the community is more in favour of quality. Before, it was not like this but now it is happening so we are actually moving towards a better platform.
	2.149	We will have to do it, so that in future there is no such thing as we do not implement it, we will lose.
	2.150	We are also waiting like Encyclopaedia itself, we have to wait for the system.
	2.151	I did it by myself because when I came here they all have undergone that training.
	2.152	If we are teach, easy to catch up and friendly operation, I think it is going to be okay.
	2.153	If we have the skill, we could use it straight away. We could make up straight away in our computer. We save time in trying to check the hard copy and we save the cost.
Quality	2.154	The quality of work could be the quality of the editorial work and precise time

		wise. With automation, we hope that we could fasten the time. Especially in KaryaNet, when we do our work online, our communication is online, so definitely the onscreen editing is a big help.
	2.155	From the point of quality, in our conventional way, we uses Gaya Dewan, we have The Manual on Work Procedure, so if we automate, we still do from the point of the quality of manuscript. Only the work procedure will change. Our references will still be the same.
Others	2.156	…yes, you could Undo it, but right now, it is easier on paper…
	2.157	Our style of work is to do it first and think later.
	2.158	We are lazy to enter too many data because we are used to using the file, we do not need to enter any data.
	2.159	If we proceed and we would like to publish it in the web for others to use, we will have to update it.
	2.160	This is very typical of DBP… (on project failures).
	2.161	…our organisation does not look at all at the real details, our requirements that is why they themselves do not understand it.
	2.162	…we ask for a service from the private sectors…
	2.163	Or maybe now we are bound with the 2 ongoing projects which will be published by 2006.
	2.164	In Oracle, you can write your own code and I do not think the contractor is competent in writing codes. What I mean is the software is flexible; you can do much more for SPMP. Since we could write our own code, like developing a website, we can write what we want for SPMP.
	2.165	… to change to something new, that might take time.
	2.166	… editors do not like it,… So they have this scepticism on what they enter into the system…
	2.167	… we could do the typesetting but sometimes we do not need to determine the specification in the form of format and basic designs because at that stage of typesetting it will change.
	2.168	We discussed, we made suggestions, but the designer determined the look of the book, it is their ideas.
	2.169	It is not that I do not want it. Firstly, I was stepping on top of the seniors.
	2.170	We need the change but well, this is beyond our control.
	2.171	There are forms that we filled in that needs our signature.
	2.172	They should train themselves first but instead they train us.
	2.173	If you always practice, it will become much faster.
	2.174	We will have to learn eventually.
	2.175	It is still the same. Except by the way we communicates with them.
	2.176	… do not know what specifications we want…"

	2.177	We still need to communicate with the outside world to evaluate the entries…
	2.178	…if you want to go for quality you have to be specific. This person is tailored for this and this one is tailored for the technical aspect.
	2.179	We will have to do it, so that in future there is no such thing as we do not implement it, we will lose.
	2.180	If we are teach, easy to catch up and friendly operation, I think it is going to be okay.
	2.181	…how we want the system to work…

Appendix 4: Sample of Text 1- On Screen Editing

Kira-kira 15 hari yang lalu, seorang hamba Allah (si A), telah kembali ke Rahmatullah secara mengejut kerana sakit jantung. Allahyarham merupakan orang yang amat dihormati dan disegani di kampung beliau. Semasa jenazah Allahyarham diletakkan di ruang tamu rumahnya sementara menunggu untuk diuruskan oleh saudara-mara dan sahabat handai, isteri Allahyarham tidak berhenti-henti meratapi jenazah beliau, sambil merungut-rungut.

Si penulis (penulis asal cerita ini) yang kebetulan anak saudara Allahyarham, ada di sebelah balu Allahyarham pada ketika itu. Beliau berasa amat hairan dengan sikap balu Allahyarham itu, yang sepatutnya membaca ayat-ayat suci al-Quran untuk dihadiahkan kepada Allahyarham. Kira-kira 10 minit kemudian, kakak ipar Allahyarham (kakak balu tersebut) pun sampai.

Beliau turut berasa hairan dengan sikap adiknya yang meratap dan merungut, lantas melarang adiknya berbuat demikian sambil bertanya akan sebabnya.

Penulis yang masih berada di situ amat terkejut apabila mendengar jawapan yang diberikan oleh balu Allahyarham itu. Antara jawapannya ialah 'Suaminya tidak membuat surat wasiat (walaupun yang sebenarnya ada).Tanah pusaka milik suaminya tidak sempat ditukarkan dengan nama beliau dan anak-anaknya. Suaminya tidak sempat memindahkan saham syarikat milik suaminya bersama-sama adik-adiknya kepada beliau (Allahyarham memegang saham sebanyak 50 peratus manakala lima orang adik-adiknya memegang 10 peratus setiap seorang)'.

Untuk makluman, Allahyarham adalah seorang yang agak berjaya dalam perniagaannya. Syarikat yang diuruskan oleh Allahyarham sangat maju dewasa ini. Allahyarham juga memiliki kira-kira 12 ekar tanah di pinggir Putra Jaya dan lebih kurang 50 ekar lagi di sekitar kawasan Sepang dan Dengkil.

Setelah seminggu Allahyarham dikebumikan, peguam Allahyarham memanggil waris-waris Allahyarham untuk dibacakan surat wasiat Allahyarham. Penulis turut dipanggil tanpa mengetahui akan sebabnya. Allahyarham mempunyai empat orang anak, yang sulung masih lagi bersekolah di Tingkatan 4 manakala yang bongsu berusia enam tahun.

Antara kandungan surat wasiat Allahyarham ialah, 30 peratus syer perniagaannya hendaklah diserahkan kepada anak saudara perempuannya yang juga ahli perniagaan, dan 20 peratus lagi diagihkan sama rata kepada anak-anaknya dengan anak saudara perempuannya sebagai pemegang amanah.

Tanah pusaka Allahyarham yang seluas 10 ekar di pinggir Putra Jaya dibahagikan sama rata kepada anak-anak perempuannya (dua orang) dan 2 ekar diberikan kepada anak saudara lelakinya yang juga pemegang amanah kepada anak-anak perempuannya.

Anak-anak lelaki Allahyarham yang berumur 14 tahun dan 10 tahun diberikan tanah 15 ekar seorang dengan saudara lelakinya sebagai pemegang amanah. Saham-saham Allahyarham diserahkan kepada anak-anaknya dan dibahagikan mengikut hukum syarak, dan diuruskan oleh saudara perempuannya yang turut diberikan agihan sebanyak 20 peratus.

Wang tunai Allahyarham di bank persendirian diamanahkan kepada kakak Allahyarham untuk menampung pembiayaan anak-anak Allahyarham jika isterinya tidak berkahwin lagi.

Jika isterinya berkahwin lagi, Allahyarham mengarahkan peguamnya meminta mahkamah memberikan hak penjagaan anak-anak mereka kepada kakak Allahyarham. Rumah dan tapak rumah Allahyarham diwakafkan untuk anak-anak yatim Islam dan untuk sebuah surau, dan hendaklah diserahkan kepada Majlis Agama Islam. Harta-harta Allahyarham yang lain, iaitu dua buah kereta diberikan kepada adik lelaki Allahyarham yang ketiga dan kelima, manakala baki tanah seluas 20 ekar dibahagikan sama rata antara adik-adik dan kakak Allahyarham.

Setelah selesai wasiat tersebut dibaca, isteri Allahyarham membantah keras kerana tiada satu pun harta yang diserahkan kepadanya melainkan sebuah kereta Proton Saga yang tidak dimasukkan ke dalam wasiat tersebut (yang memang digunakan oleh isteri Allahyarham).

Belum pun sempat isteri Allahyarham terus membantah, peguam Allahyarham membacakan satu pernyataan tentang isteri Allahyarham, yang terkandung dalam wasiat itu.

"Isteriku tidak akan ku berikan apa-apa kecuali pengampunan. Terlalu banyak dosanya kepadaku. Maka, pengampunan adalah hadiah yang paling berharga. Tidak pernah aku merasa masakannya sejak mula berkahwin walaupun pernah aku suarakan. Tiada belas kasihan terhadap aku, baik semasa sakit, apatah lagi jika aku sihat. Herdik dan tengking terhadapku dan anak-anak adalah lumrah. Apabila keluar rumah, dia tidak pernah meminta kebenaran daripada aku. Makan dan minum anak-anak adalah tanggungjawab bibik (pembantu rumah). Kain bajuku tidak pernah diuruskan, dan yang paling menyedihkan, tiada mahunya dia mendengar pandangan dan nasihatku untuk kesejahteraan rumah tangga. Kebahagiaan aku selama ini hanya dengan amalanku, tugas seharianku, anak-anakku dan adik-beradikku, terutama kakakku (yang menjadi sebagai pengganti ibu)."

Selepas peguam Allahyarham membacakan pernyataan itu, barulah penulis faham mengapa balu Allahyarham meratap dan merungut semasa berada di sisi jenazah Allahyarham. Marilah kita renungkan bersama-sama. Semoga peristiwa ini akan memberikan pengajaran yang berguna kepada kita sebagai umat Islam.

Appendix 5: Sample of Text 2 - On Screen Editing

Cerita di Dusun Durian

Di sesetengah tempat, musim durian sudah di tiba ke penghujungnya. Buahnya pun sudah tidak banyak lagi. Pemilik dusun sudah banyak mendapat duit. Kalau diikutkan kata Os dalam seni kata lagunya tentang durian, dia menyebut: "Bila musim durian, deme (mereka) jadi kaya, apa deme nak hairan, saman boleh bayor". Apa yang mereka lupa ialah peraih sebenarnya lebih kaya daripada mereka. Pemilik dusun hanya mengeluarkan durian dari dusun manakala peraih mengangkutnya dengan lori besar ke bandar. Untung yang diperoleh oleh peraih berlipat ganda banyaknya. Akan tetapi, orang Melayu hanya mahu berniaga dengan cara paling mudah. Peraih mendapat untung yang banyak pun tidak mengapa. Tanpa peraih, durian tidak boleh dijual. Mereka tiada lori dan tiada masa untuk berniaga sendiri di bandar. Kalau mereka menjual durian mereka sendiri, tidak ada orang yang akan mengutip durian di dusun. Mereka tidak tahu bagaimana mencari penyelesaian secara produktif.

Pelbagai cerita tentang raja buah ini kita dengar setiap musim, terutamanya apabila kita pergi ke dusun-dusun durian. Paling popular ialah cerita tentang saudara-mara yang bergaduh. Semua ini tentang duit. Namun, tidak semuanya begitu, tetapi cerita sebegini memang berlaku. Paling hebat kalau dusun yang kecil itu dimiliki oleh beberapa orang adik-beradik. Ada sesetengahnya terpaksa mengira bilangan anak. Kalau salah seorang daripadanya mengambil lebih sikit, mulalah yang lain membebel. Kalau ada hasil jualan pula, keluarga yang mempunyai anak yang ramai hanya mendapat habuan yang sedikit saja kerana anak-anaknya sudah makan banyak durian. Apabila keadaan ini berbangkit, mulalah berlaku tuduh-menuduh antara adik-beradik. Ada yang mengata si anu tu tidak buat kerja langsung, tidak pernah menebas, menjual durian secara sembunyi-sembunyi dan sebagainya. Kita jadikan cerita ini sebagai modal minggu ini kerana kita rasakan ini adalah salah satu realiti di kampung yang menggambarkan sifat dan kelemahan orang Melayu.

Mereka tidak tahu berkongsi. Sifat ini terbawa-bawa hinggakan mereka tidak lagi mempercayai orang lain. Alasan mereka juga kuat. Kalau adik-beradik sendiri pun tidak boleh dipercayai, inikan pula orang lain. Kalau tentang durian boleh menyebabkan adik-beradik tidak bertegur-sapa, bagaimana hendak menguruskan syarikat besar. Walaupun ada, tidak ramai adik-beradik di kalangan orang Melayu yang benar-benar berjaya dalam bidang perniagaan. Kita tentu sering mendengar syarikat kaum asing yang diuruskan oleh adik-beradik. Syarikat yang dinamakan dengan nama adik-beradik (*brothers*) di kalangan orang Melayu, jarang-jarang kita dengar. Di Malaysia, banyak syarikat kaum Cina yang dikendalikan oleh adik-beradik dan terbukti berjaya.

Satu lagi cerita adalah tentang keluarga yang tinggal jauh terutama di bandar-bandar besar. Apabila musim durian, maka tergeraklah hati mereka untuk pulang ke kampung. Pada kita itu memanglah bagus, sekurang-kurangnya ada juga alasan mereka hendak bertemu saudara-mara, selain pada hari raya. Kalau setakat hendak makan durian, mereka boleh membeli di mana-mana sahaja, bukan boleh dimakan terlalu banyak. Oleh sebab suasana di dusun lebih meriah, mereka pun pulanglah bersama-sama keluarga. Akan tetapi, apabila sampai di dusun, mereka menjadi serba salah. Belum pun sempat menjamah seulas durian, telinga sudah panas disindir keluarga. Bagi orang yang merantau dan sentiasa sibuk, apabila ada yang menegur, "Hai ... musim durian baru nampak batang hidung," tentulah terasa bahangnya.

Dilihat dari satu segi, musim durian boleh mengeratkan hubungan keluarga. Akan tetapi, boleh juga membawa kesan yang tidak baik. Bagi pemilik dusun, mereka ada alasan yang kuat. Mengapakah pada musim durian sahaja baru hendak menunjukkan muka? Adakah tali persaudaraan diukur dengan durian sahaja? Akan tetapi, orang luar melihat semua ini berpunca daripada duit. Kalau ramai saudara-mara yang datang, makin kuranglah rezeki mereka. Buah durian dikumpulkan untuk peraih, tetapi tiba-tiba saudara-mara datang dengan van, tentulah tidak semua durian boleh dijual. Sudah menjadi adat, bekalan durian untuk dibawa pulang terpaksa disediakan juga. Sesetengah orang faham keadaan ini. Sebelum pulang mereka akan memberikan sedikit wang. Akan tetapi, bagi saudara yang rapat, tentunya keadaan ini tidak berlaku. Kalau itu pun nak dibayar, apa pula kata orang.

Pada musim durian ini juga kita sering mendengar kisah pencuri durian. Apabila terdengar sahaja bunyi dentuman durian gugur, mereka lebih dahulu tiba di dusun daripada pemiliknya. Kalau dusun tidak ada yang menunggu, lebih mudahlah mereka mencuri. Cuma, apabila hendak dijual, mereka perlu berhati-hati. Hal ini disebabkan mereka boleh disyaki mencuri jika menjual buah itu kepada orang yang salah. Dengan hanya melihat kepada duri durian tersebut, mereka sudah tahu dari dusun mana buah itu dicuri. Kita tertarik juga mendengar cerita begini kerana ini merupakan suatu kemahiran mengecam yang agak mustahil untuk kita lakukan. Akan tetapi, menurut orang kampung, memang ada orang yang boleh mengenal duri durian. Andaiannya samalah seperti mengenal kerbau. Walaupun beratus-ratus ekor kerbau itu sama sahaja rupanya, penternaknya boleh mengenal kerbau mereka.

Appendix 6: Sample of Text 1 – Conventional Editing

Kira-Kira 15 hari yang lalu, seorang hamba Allah (si A),telah ~~pun~~ kembali ke rahmatullah secara mengejut (kerana sakit jantung).Allahyarham ~~adalah merupakan~~ seorang yang amat dihormati dan disegani di kampung beliau. Semasa jenazah Allahyarham diletakkan di ruang tamu rumahnya sementara menunggu untuk diuruskan oleh saudara mara dan sahabat handai, isteri Allahyarham tidak berhenti-henti meratapi jenazahnya sambil merungut-rungut.

Si penulis (penulis asal cerita ini) yang kebetulan anak saudara Allahyarham, ada di sebelah balu Allahyarham ~~pada~~ ketika itu.Beliau merasa amat hairan dengan sikap balu arwah itu. Si balu sepatutnya membaca ayat-ayat suci al-Quran untuk dihadiahkan kepada arwah.Kira-kira 10 minit kemudian, kakak ipar arwah (kakak balunya)pun sampai.

Beliau turut merasa hairan dengan sikap adiknya yang meratap dan merungut itu, lantas beliau melarang adiknya berbuat demikian sambil bertanya akan sebabnya.

Penulis yang masih berada disitu merasa amat terkejut apabila mendengar jawapan yang diberikan oleh balu Allahyarham itu.Antara jawapannya ialah Suaminya tidak membuat surat wasiat (yang sebenarnya ada).Tanah pusaka milik suaminya tidak sempat ditukarkan ke nama beliau dan anak-anaknya.Suaminya tidak sempat memindahkan saham syarikat ~~suami~~nya bersama-sama adik-adiknya kepada beliau (Allahyarham memegang saham sebanyak 50% dan 5 orang adik-adiknya memegang 10% setiap seorang).

Untuk makluman, arwah ~~ad~~alah seorang yang agak berjaya dalam perniagaannya. Syarikat yang diuruskan oleh arwah sangat maju dewasa ini.Di samping itu, arwah memiliki kira-kira 12 ekar tanah dipinggir Putra Jaya dan kira-kira 50 ekar di sekitar kawasan Sepang/Dengkil.

Setelah seminggu arwah dikebumikan, peguam arwah memanggil waris-warisnya untuk dibacakan surat wasiat arwah. Penulis juga turut dipanggil tanpa mengetahui akan sebabnya. Allahyarham mempunyai 4 orang anak, yang sulong masih lagi bersekolah di tingkatan 4

manakala yang bongsunya berusia 6 tahun.

Antara kandungan surat wasiat Allahyarham ialah 30% syer perniagaannya diserahkan kepada anak saudara perempuannya yang juga ahli perniagaan,dan 20% lagi diagihkan sama rata kepada anak-anaknya dengan anak saudara perempuannya sebagai pemegang amanah.

Tanah pusakanya seluas 10 ekar di pinggir Putra Jaya dibahagikan sama rata kepada anak-anak perempuannya (2 orang) dan 2 ekar untuk anak saudara lelakinya yang juga pemegang amanah untuk anak-anak perempuannya.

Anak-anak lelakinya yang berumur 14 dan 10 tahun, diberikan tanah 15 ekar seorang dengan saudara lelakinya sebagai pemegang amanah.Saham-sahamnya diserahkan kepada anak-anaknya dan dibahagikan mengikut hukum syarak dan diuruskan oleh saudara perempuannya yang diberi 20%

Wang tunainya di bank (persendirian)diamanahkan kepada kakaknya untuk menampung pembiayaan anak-anaknya jika isterinya tidak berkahwin lagi.

Jika isterinya berkahwin lagi, beliau meminta peguamnya meminta mahkamah memberikan hak penjagaan anak-anaknya kepada kakaknya. Rumah dan tapak rumahnya diwakafkan untuk anak-anak yatim Islam dan sebuah surau dan hendaklah diserahkan kepada Majlis Agama Islam. Harta-hartanya yang lain iaitu 2 buah kereta diberikan kepada adik lelakinya yang ketiga dan kelima manakala baki tanah 20 ekar dibahagikan sama rata kepada adik-adik dan kakaknya.

Setelah selesai wasiat tersebut dibaca, isterinya membantah keras kerana tiada satu pun harta yang diserahkan kepadanya melainkan sebuah proton saga yang tidak dimasukkan dalam wasiat tersebut (yang memang digunakan oleh isterinya).

Belum sempat isterinya terus membantah, peguam Allahyarham membacakan satu kenyataan

~~mengenai~~ isterinya yang terkandung dalam wasiat itu.

"Isteriku tidak akan kuberikan apa-apa kecuali pengampunan.Terlalu banyak dosanya kepadaku. Maka pengampunan adalah hadiah yang paling berharga."

"Tidak pernah aku merasa masakannya sejak mula berkahwin walaupun pernah aku suarakan. Tiada belas kasihan terhadap aku, baik semasa sakit apatah lagi jika aku sihat."

"Herdik dan tengking kepada aku dan anak-anak adalah lumrah. Keluar rumah tidak pernah meminta kebenaran daripada aku. Makan dan minum anak-anak adalah tanggungjawab bibik (pembantu rumah).Kain bajuku tidak pernah diuruskan, dan yang paling menyedihkan, tiada mahunya dia mendengar pandangan dan nasihatku untuk kesejahteraan rumahtangga."

"Kebahagiaan aku selama ini hanya dengan amalanku,tugas seharianku,anak-anakku dan adik-beradikku, terutama kakakku (~~yang~~ sebagai pengganti ibu)."

Selepas peguam Allahyarham membacakan kenyataan itu,barulah penulis faham mengapa balu Allahyarham begitu meratap dan merungut semasa berada disisi jenazahnya. Marilah kita renungi bersama.Semoga dengan apa yang terjadi di atas,akan memberikan satu pengajaran yang berguna kepada kita sebagai umat Islam

Appendix 7: Sample of Text 2 – Conventional Editing

Cerita di dusun durian

Di sesetengah tempat, musim durian sudah di penghujungnya. Buahnya pun sudah tak banyak lagi. Pemilik dusun sudah ~~pun~~ banyak buat duit. Kalau ikut Os dalam senikata lagunya ~~pasal~~ durian, dia menyebut "Bila musim durian, deme (mereka) jadi kaya, apa deme nak hairan, saman boleh bayar". Apa yang mereka lupa peraih sebenarnya lebih kaya daripada mereka. Pemilik dusun hanya keluarkan durian dari dusun manakala peraih angkut dengan lori besar ke bandar-bandar. Untung diperoleh peraih berlipat ganda banyaknya. Tapi, orang Melayu mahu berniaga paling mudah. Peraih buat untung besar pun tak apa. Kalau tidak, durian tidak boleh dijual. Mereka tidak ada lori dan tidak ada masa untuk berniaga sendiri di bandar. Kalau mereka menjual sendiri, tidak ada orang yang akan mengutip durian di dusun. Mereka tidak tahu cara ~~mana mahu~~ mencari penyelesaian yang produktif.

Pelbagai cerita ~~pasal~~ raja buah ini kita dengar setiap musim, terutamanya bila kita pergi ke dusun-dusun durian. Paling popular ialah cerita ~~pasal~~ saudara-mara bergaduh. Semua ini ~~pasal~~ duit. Bukanlah semuanya macam itu. Tapi, cerita macam ini memang berlaku. Paling hebat kalau dusun yang kecil itu dimiliki oleh beberapa adik beradik. Ada sesetengahnya terpaksa kira bilangan anak. Kalau salah seorang daripadanya mengambil lebih sikit, mulalah yang lain membebel. Kalau ada hasil jualan pula, keluarga anak ramai hanya dapat habuan yang sedikit saja kerana anak-anaknya sudah makan banyak durian. Bila keadaan ini berbangkit, mulalah berlaku tuduh-menuduh di antara adik beradik. Ada yang kata si anu tu tak buat kerja langsung, tidak pernah menebas, jual durian

sembunyi-sembunyi dan sebagainya. Kita jadikan cerita ini sebagai modal minggu ini kerana kita rasakan ini adalah salah satu realiti di kampung yang menggambarkan sifat dan kelemahan orang Melayu.

Mereka tidak tahu berkongsi. Sifat ini terbawa-bawa hinggakan mereka tidak lagi percaya pada orang lain. Alasan mereka kuat juga. Kalau adik beradik sendiri pun tidak boleh dipercayai, inikan pula orang lain. Kalau ~~pasal~~ durian boleh menyebabkan adik-beradik tidak bertegur-sapa, bagaimana mereka boleh menguruskan syarikat besar.

Walaupun ada, tidak ramai keluarga daripada adik-beradik di kalangan orang Melayu yang benar-benar berjaya dalam bidang perniagaan. Kita tentu sering mendengar syarikat kaum asing yang diuruskan oleh adik-beradik. Syarikat yang dinamakan dengan nama adik- beradik (brothers) di kalangan orang Melayu, jarang-jarang kita dengar. Di Malaysia, banyak syarikat kaum Cina yang ~~berjaya~~ dikendalikan oleh adik-beradik ~~dan~~ terbukti berjaya.

Lagi satu cerita ~~pasal~~ keluarga yang tinggal jauh terutama di bandar-bandar besar. Bila musim durian, maka tergeraklah hati mereka untuk pulang ke kampung. Pada kita baguslah tu sekurang-kurang ada juga alasan mereka bertemu saudara mara, selain hari raya. Kalau setakat nak makan durian ~~tu~~ mereka boleh beli di mana-mana saja, bukan boleh makan banyak sangat pun. Disebabkan suasana di dusun tu lebih meriah, mereka pun pulanglah bersama keluarga. Tapi, bila sampai di dusun, mereka pun jadi serba salah. Belum pun sempat jamah seulas durian, telinga sudah panas disindir keluarga. Bagi orang

yang merantau dan sentiasa sibuk, bila ada yang menegur, "hai..musim durian baru nampak batang hidung," tentulah terasa bahangnya.

Dilihat dari satu segi, musim durian ini boleh mengeratkan hubungan keluarga. Tetapi, ia juga boleh membawa kesan tidak baik. Bagi pemilik dusun, mereka ada alasan yang kuat juga. Mengapa musim durian baru nak nampak muka? Adakah tali persaudaraan ~~nak~~ diukur dengan durian saja. ~~Tapi~~, orang luar melihat semua ini berpunca daripada duit. Kalau ramai saudara-mara yang datang, makin kuranglah rezeki mereka. Buah durian dikumpul untuk peraih, tetapi tiba-tiba saudara-mara datang dengan van, tentulah tidak semua durian boleh dijual. Sudah menjadi adat, bekalan durian untuk dibawa pulang terpaksa disediakan juga. Sesetengah orang faham keadaan ini. Sebelum pulang mereka akan tinggalkan sedikit wang. Tapi, bagi saudara rapat, tentunya keadaan ini tidak berlaku. Kalau itu pun nak dibayar, apa kata orang pula.

Pada musim durian ini juga kita sering mendengar kisah pencuri durian. Bila ada saja bunyi dentuman durian gugur, mereka lebih dulu tiba daripada pemilik dusun. Kalau dusun tidak ada penunggu, lebih mudah~~lah~~ mereka buat kerja. ~~Cuma~~, bila nak dijual, mereka perlu berhati-hati. Ini kerana mereka boleh disyaki mencuri jika menjual buah itu pada salah orang. Dengan hanya melihat kepada duri durian, mereka sudah tahu dari dusun mana buah itu dicuri. Kita tertarik juga mendengar cerita begini kerana ia adalah satu kemahiran mengecam yang ~~kita~~ agak mustahil dilakukan. Tapi, mengikut orang kampung, memang ada orang yang boleh mengenal duri durian. Andaiannya sama~~lah~~ seperti mengenal kerbau.

Appendiks 8 : Standards in Editing

Marginal Mark	Meaning	Mark in text	Online Editing
Ø	To delete.	Cross through.	Replace with word/s or character as required.
Ø/	To delete and close up.	Cross through and the close up sign on top and bottom of word.	Replace with word/s or character as required.
Stet	Leave as printed (when words has been crossed out by mistakes).	…	Not necessary.
Caps	Change to capital letters.	≡ under letters or words to be altered.	Replace as required.
s.c.	Change to small capitals.	= under letters or words to be altered.	Replace as required.
caps and s.c.	Use capital letters for initial letters and small capitals for rest of words.	≡ under initial letters and = under the rest of the words.	Replace as required.
l.c.	Change from capitals to lower case.	encircle letters to be altered.	Replace as required.
bold	Change to bold type.	~ under letters or words to be altered	Replace as required.
Ital	Change to italics	-------- under letters or words to be altered Replace as required.	Replace as required.
rom	Change to roman type	Encircle words to be altered.	Replace as required.
w.f.	Wrong font. Replace by letter of correct font.	Encircle letter to be altered.	Replace as required.
ϑ	Invert type *.	Encircle letter to be altered.	Replace as required.
x	Replace by similar but undamaged character.	Encircle letter to be altered.	Not necessary.
#	Close-up –delete space between spaces.	* linking words or letters.	Alter as required.
#	Insert space.	Λ between letters or words.	Alter as required.
eq #	Make spacing equal.	> between lines or paragraphs.	Alter as required.
less #	Reduce space.	L between words.	Alter as required.
trs	Transpose.	L between words.	Alter as required.
centre	Place in centre of line.	* between letters or words, numbered when necessary.	Alter as required.
⌐	Move to left.	indicate position with *.	Alter as required.
¬	Move to right.	]	Alter as required.
n.p.	Begin new paragraph.	[before first word of new paragraph.	Alter as required.
run on	No fresh paragraph here.	[between paragraph.	Alter as required.

Appendix 9: Data on Editing

Subject	Text1C1	Text1E1	Text2C2	Text2E2	Text1CT1	T!ET1	T2CT2	T2ET2	Experience/years
1	90.00	92.00	74.00	43.00	19.00	14.16	9.45	14.10	2-9
2	49.00	66.00	25.00	29.00	12.54	14.45	5.58	9.04	> 10
3	108.00	171.00	141.00	135.00	21.20	33.11	17.19	40.00	> 10
4	105.00	95.00	85.00	69.00	21.04	17.54	20.47	16.49	> 10
5	113.00	24.00	68.00	50.00	23.54	6.35	10.44	17.47	> 10
6	25.00	20.00	39.00	37.00	7.40	18.56	6.56	12.40	2-9
7	95.00	73.00	74.00	65.00	17.36	15.48	16.14	15.14	> 10
8	52.00	52.00	73.00	71.00	14.30	9.30	10.29	21.30	2-9
9	119.00	70.00	39.00	21.00	20.40	7.45	19.45	7.00	> 10
10	124.00	88.00	94.00	75.00	26.42	18.16	18.57	17.07	> 10
11	170.00	254.00	117.00	111.00	18.39	20.33	8.45	15.37	> 10
12	54.00	60.00	53.00	60.00	15.59	10.00	10.36	14.50	2-9
13	65.00	48.00	57.00	50.00	24.31	19.27	23.16	15.49	2-9
14	285.00	253.00	55.00	45.00	54.36	40.31	7.14	18.36	> 10
15	25.00	35.00	39.00	34.00	10.02	13.02	5.35	7.51	2-9
16	110.00	122.00	166.00	159.00	24.40	19.05	16.05	28.10	> 10
17	85.00	74.00	65.00	49.00	18.17	16.46	15.00	13.29	2-9
18	51.00	33.00	61.00	32.00	4.32	10.07	9.35	17.40	> 10
19	130.00	120.00	52.00	21.00	17.37	13.13	6.14	8.30	> 10
20	76.00	58.00	91.00	43.00	16.33	13.49	14.16	11.23	2-9
21	152.00	78.00	88.00	91.00	21.13	14.10	3.25	16.00	> 10
22	52.00	53.00	51.00	49.00	23.05	11.50	12.15	16.30	> 10
23	107.00	112.00	68.00	55.00	15.12	17.17	8.42	9.15	> 10
24	93.00	65.00	72.00	49.00	18.47	16.42	15.38	14.29	2-9
25	78.00	62.00	63.00	57.00	23.16	21.56	20.48	17.32	2-9
26	125.00	77.00	105.00	94.00	26.14	19.05	22.36	15.00	2-9
27	94.00	68.00	77.00	59.00	20.54	18.47	16.39	14.43	> 10
28	86.00	69.00	64.00	47.00	19.56	11.45	12.10	10.27	2-9
29	81.00	65.00	83.00	61.00	19.27	16.39	11.20	9.49	2-9
30	68.00	70.00	76.00	70.00	17.46	17.40	15.37	10.56	> 10
31	89.00	72.00	53.00	47.00	17.46	16.39	15.54	12.39	2-9
32	119.00	72.00	56.00	48.00	24.19	20.78	17.18	14.39	> 10
33	69.00	57.00	77.00	59.00	16.53	14.06	14.29	11.36	2-9

Appendix 10: Journal Paper

PUBLIC ADMINISTRATION AND DEVELOPMENT
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MALAYSIA'S GOVERNMENT PUBLISHING HOUSE: A QUEST FOR INCREASED PERFORMANCE THROUGH TECHNOLOGY

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SUMMARY

Electronic publishing, which is the production of a book or an e-book electronically, encompasses all processes involved in the production such as electronic communication, production, authoring, submission, reviewing, transfer and output. This study examines a radical transformation process to turn a conventional sector into an electronic sector. Studies were carried out in a government run publishing house in Malaysia, where the course of the public sectors and the interests of the private sectors meet. Factors that hindered progress, such as data management issues and transparencies are identified, and suggestions made to overcome them. Some concerns over disruption, such as creative destruction, often viewed as negative and destructive were identified with the introduction of technology. As disruption is also considered as one of the main hindrances in innovation, the study focuses on determining other effects of disruption on transformation. Business and management strategies are combined and a system that could increase performance and efficiency in the sector is proposed. However, the main concern in e-government efforts will have to be looked into from the root issues expanding from top level management to users and an innovative platform furnished with knowledge and skills at all levels. Copyright © 2007 John Wiley & Sons, Ltd.

KEY WORDS — public sector; conventional system; content management; performance; electronic publishing; e-government; disruption

INTRODUCTION

E-Government in Malaysia

The Malaysian Public Services Network developed in the early 1990s was the first venture into a networked electronic service. The Postal services and Permodalan Nasional Berhad, the Government investment institution, were given access to databases owned by the Government to provide services to citizens and businesses. In 1996, the Malaysian Super Corridor was launched, to provide an opportunity to shift to electronic government. This is a dedicated 15 × 50 km corridor stretching from the Petronas Twin Towers in the north and the Kuala Lumpur International Airport in the south. It encompasses Cyberjaya (The Technical Core) and Putrajaya (the new administrative capital of Malaysia). By 2003, Malaysia ranked 26th in the world in network readiness. One flagship application proposed was the Multipurpose Card. The card, embedded with a microprocessor, incorporating the use of chip card technology and biometrics verifications finally materialised in 2002 with four government applications and four payment applications. To date Malaysians have yet to use the facilities provided by the smart card. It was also in 2002 that e-book publishing in Malaysia started to take off. The idea of Smart Schools, was also proposed as one of the flagship applications was based on the National Education Philosophy and in line with the Integrated Primary and Secondary Curriculum (Abdul Karim and Khalid, 2003). Electronic publishing, which is the production of a book or an e-book electronically, encompasses all processes involved in the production such as electronic communication, production, authoring, submission, reviewing, transfer and output. In this case,

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electronic publishing is the publishing industry's answer towards becoming efficient and productive and ensuring the timely production of reading materials (Daut Mohmud and Sackett, 2004a).

BACKGROUND STUDY

The Malaysian scenario

In the Malaysian publishing industry case study, the production house is owned by the Government where it is characterised by the political market that approves budgets and provides subsidies. Almost 70% of the Governments' textbooks are produced by the Agency, under the wing of the Ministry of Education. The Agency generates its' own income but the Government finances its' emolument and infrastructure. So far, the Agency has never produced e-textbooks, which will be required in the Smart Schools, or involved in the implementation of the initiative. Under the scheme of 'social obligation', managers find it difficult to develop services with real growth potential or generate surpluses to be reinvested. Managers are not trained to be business minded or cost effective and efficient. Corporate parents buffer the executives in businesses from the realities of financial markets (Abdul Karim and Khalid, 2003), executives are not truly answerable for the performance of their business, nor given incentives for driving the business or services forward. Promotions to key positions may be judged on the duration of services with less consideration on individual performance or paper qualifications.

In a triangle of government administrations and services, business activities and social obligations, the study examines the impact of transformation on the editorial phase, to change a conventional government publishing house into an electronic office serving both the public sector and its business. The issues related to the transformation of the Agency to electronic business government is addressed by proposing a decision support system for the editors.

E-publishing

In 1996, Malaysia launched the National Information Technology Agenda (NITA) with the theme: *Turning Ripples into Tidal Waves*. There are two objectives to this agenda:

- to act as the Government Strategy and to develop the nation and country and
- to balance the development of human, infostructure and application and contents.

To realise NITA, the Demonstrator Application Grant Scheme (DAGS) was founded and launched 2 years later, in 1998. DAGS was then applicable via the Intensification of Research in Priority Areas (IRPA) projects, under the wing of the Ministry of Science, Technology and Environment Malaysia. Meanwhile, MIMOS Berhad (Malaysian Institute of Microelectronic Systems) was appointed the Secretariat to DAGS and envisions an information-rich society in line with the National Vision Policy, Vision 2020 and actively promotes the application and development of Information and Communications Technology (ICT) in nation-building efforts and also functions as an advisor to the Malaysian Government on technologies, policies and strategies relating to technology development.

The Institute of Language and Literature Malaysia (DBP)

The Institute of Language and Literature Malaysia is a government body under The Ministry of Education Malaysia. Among its visions are:

(i) to promote the development of the Malay language
(ii) to promote the development of the Malay literature and
(iii) to promote the publication of reading materials in the Malay language.

DBP published its first book in 1957, a translated version of the *King and the Pauper*. For many years, DBP was entrusted to publish a variety of books and magazines including subsidised textbooks and higher learning books. With an increased number of books every year its storage depot became piled with specialised higher learning books translated into the Malay language, suggested by the higher institutions in Malaysia in all fields of study, but

unfortunately, with no buyers. These books were printed at a high cost and sold at a subsidised price of up to 35% by DBP. Between 1986 and 1995, a total of 1778 higher learning titles were published.

In 1995, the Government began to decrease its financial support for the publication of higher learning books and DBP stopped the publication of all translated higher learning books and began to concentrate on the publication of other types of reading materials and textbooks. Since then, the vacuum of these titles in Malaysia has been filled by the limited titles produced by individual university's printing offices.

In 2000 MIMOS invited DBP to apply the grant for the DAGS scheme, knowing that DBP has a vast collection of materials in the Malay language especially in the field of language and literature. However, a condition was set that the project would be carried out with another business partner from the private sector and be completed or running online within a year. With no expertise in the information system field, DBP invited IGD Hitech Corporation, an ICT specialised company as its partner. With an approved grant of USD 450000, DBP and IGD started the development of what is now called The KaryaNet with its portal at www.karyanet.com.my. In this partnership, DBP acts as the promoter, with the task of acquisitioning and providing the titles and contents. IGD was entrusted with the development of infrastructure and developing the digital contents.

The KaryaNet and its visions

KaryaNet is a portal for everything related to online publishing. Its main activity is the development of communities of writers, reviewers, editors, graphic artists, students and users and online publishers as well as the realisation of the e-reference, e-mentor, e-publishing, e-bookstore and e-commerce programmes. Its final product is the publication of a variety of reading and reference materials in the Malay language which are accessible via the internet.

The KaryaNet was envisioned to be able to:

- reactivate the production of higher learning books and references in as many field possible
- increase the number of high quality reading materials in informative and creative forms for all levels of society
- as a centre of reference
- provide a network of integrated community to rapidly promote the production and publication of a piece of work
- become the catalyst in promoting activities involving the Malay language, literature and publishing and
- become the infrastructure for online publication and e-commerce activities.

However, technophobia is common. It relates to the scepticism and uncertainty faced by the community to make transactions online mostly due to the insecurity of having to depart with personal identification and data in a largely unsecured web. To date, most Malaysians are not accustomed to buying things online (Daut Mohmud and Sackett, 2004b).

Our observations showed that the 'integration' of the Companies' entities is not happening. In reality, it is the conventional way of communication but via technology. Electronic communication in terms of data sharing, work sharing, decision support, migration, transfer and delivery is not common.

Since the beginning of 2003, all employees of the Agency are equipped with their own password protected PC. The computer is not used as the main tool for conducting office work. For the editors, there are typists and external editors to support their work; the computer is used for e-mailing, downloading forms or designing simple support materials; the computer is more of a calendar and an alarm clock.

METHODOLOGY

The SAILS methodology

The SAILS methodology was chosen as a heuristic approach for exploring disruptive technologies based on Vojak and Chambers (2004). This methodology proposes five different types of disruptive contributors commonly observed:

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- changes in industry *Standards*
- changes in *Architectures*
- various forms of *Integration* and disintegration of elements
- *linkages* between various elements across supersystem and
- *substitutions* within the subsystem

Its emphasis on architectures, integration, linkages and substitution are all parallel to the changes that occur in any electronic transformation in an organisation but its emphasis on Standards make the methodology the correct choice for the publishing industry and the government agency where standards are placed as part of quality measures. Based on this, we looked at five different types of changes that occurred in the Government publishing house as it underwent transformation.

Data collection

The main data collection to determine the effect of transformation involves examining a large number of documents from the company. These include The Manual on Work Procedure, The Gaya Dewan, which is the Agency's house style guide, documents on books published within a 2-year duration (2002–2003), official and administrative forms, reports as well as data from its website.

ANALYSIS OF STUDY

Changes in industry standards

The Agency adopted The Manual on Work Procedure to ensure that all work related materials are handled in the manner as stated under this manual. It provides guidelines for all levels of workers to follow in conducting the handling of administrative and editing works.

Figure 1a and b shows how a job is transferred from one section to the other within the conventional and transformed environment. In normal conventional cases, three drafts were needed before a letter/memo could be approved and transferred and the final version is prepared in three copies. The first draft is for the editor to conduct copy and contents editing. The second draft is for the editor to produce the clean document and the third is for the insertion of a given reference number. The clean copy is then sent to the person authorised to approve the document. If he/she agrees with the letter/memo, it will be signed off or otherwise sent for corrections again until satisfied. Transfer of documents from one division to another within the Agency is done by hand by the support group and transfers out of the Agency by postal services requires the approval of the Administration department. The movement of the document from one section to another is recorded by a clerk in either a report book or a designated file for the said project. Altogether, this process involves five stages of work group as depicted in the Manual and Figure 1a. it is a days' work to complete a set of letters and to send them to the recipients. With the transformation, the flow does not comply with the Manual on Work Procedure. The transformed flow shown in Figure 1b shows that Stage 3, 4 and 5, are no longer applicable or needed. It shows a reduction on time taken for transfers, reduction in work force, simplification of tasks and the need for a new procedure that will comply with auditing purposes imposed on government agencies.

Changes in architectures

We studied three system architectures involved in the editorial phase; the Management Structure (Figure 2a and b), the Systems Structure (Figure 3a and b) and the Process Structure (Figure 4a and b).

I. Changes in Management Structure

Figure 2a and b shows that the Management Structure transformation affects the support group, which will either became irrelevant in the structure or reduced. We also see the need for a Chief Information Officer (CIO) in the context of transformation where the role of CIO exists only as a supporting figure to provide necessary management in the conventional phase.

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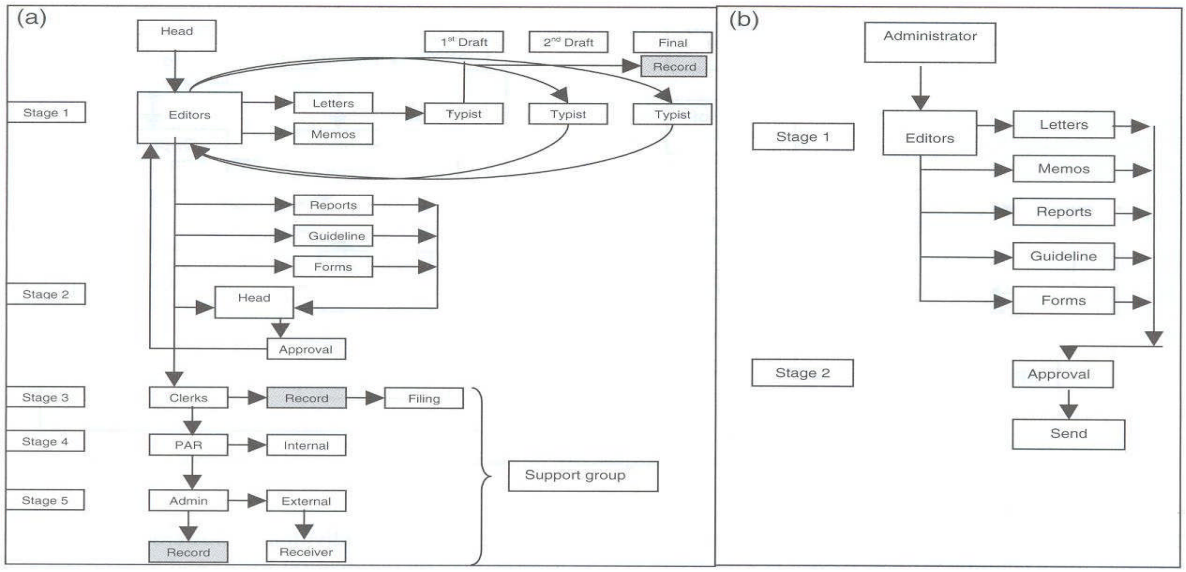

Figure 1. (a) Workflow in conventional environment; (b) workflow after transformation.

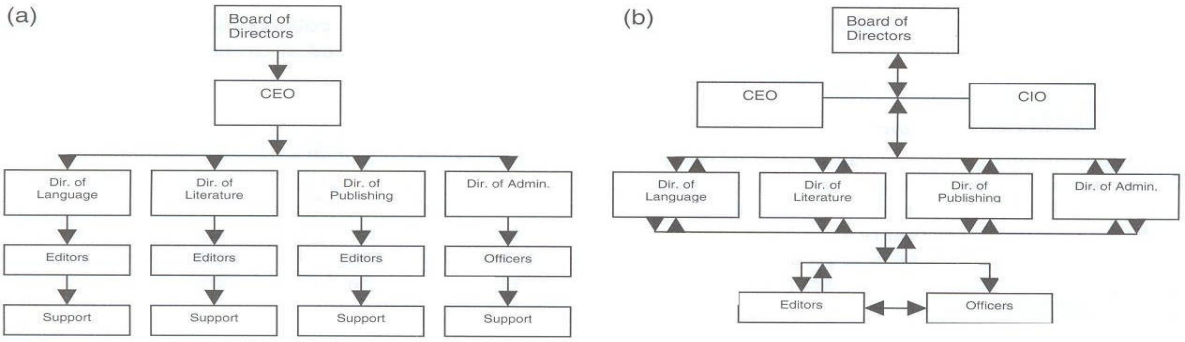

Figure 2. (a) Conventional structure; (b) electronic structure.

In 2002, the concept of CIO in the Government sector was introduced to emphasise the increasing and prevailing use of technology into the business operations of government. However, to create a new role in the Agency involves the Public Services Agency; a long and exhausting process. In the publishing industry, new positions will be created such as Content Manager, Web Editor, Web Specialists and Web Designers, which have not been described yet under the prevailing classification.

Public Admin. Dev. **27**, 27–38 (2007)
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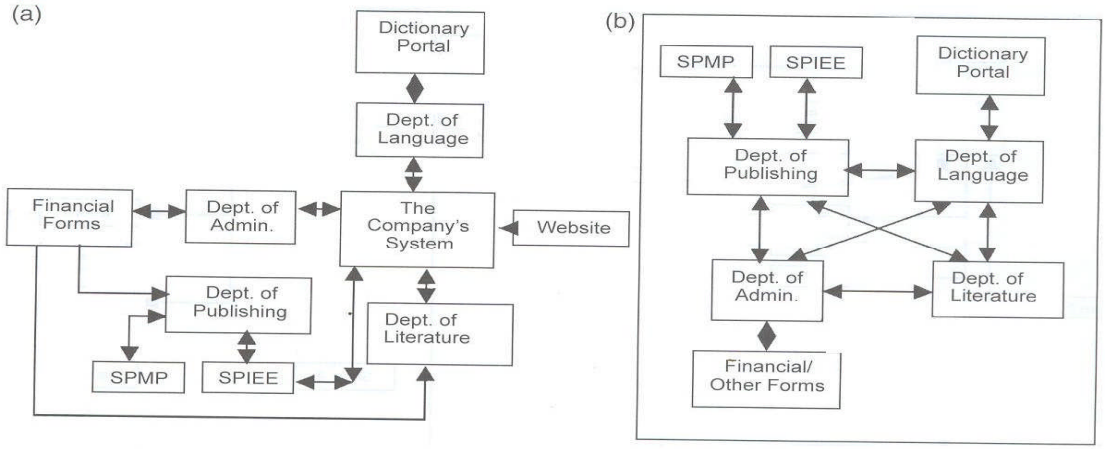

Figure 3. (a) Conventional structure (heterogeneous); (b) electronic structure (central repository).

Changes in system structure

The Agency has its own web site for the public and four other main structures individually clustered and does not integrate them (Figure 3a). The SPMP is a database system to store data on publication works and to keep track of the progress of manuscripts, limited to the Department of Publishing. SPIEE is a database system for entries of encyclopaedias. The finance structure provides financial forms that could be accessed and filled in online but need to be printed out and sent back by hand. The language structure has its own system and other departments and divisions have since developed their own heterogeneous structure.

The electronic online system should be based on intra-integration and collaboration practices within departments and divisions. The system is characterised by its central repository and interrelated function without any boundaries.

Changes in process structure

In the conventional phase, the editor's formal communications with the author and all external communications are via the administrator (for record purposes; Figure 4a).

In an electronic environment, all communications are directed to the recipient from the author (via an administrator). In the process of digitisation of data and image manipulation where it is not needed in the conventional phase, it replaces the process of Prepress to produce the camera-ready copy ready for printing, while the product of digitisation is ready to be stored in the database; proofreading and typesetting are not required (Figure 4b).

Integration and disintegration of elements

We categorised 462 documents from 41 project files for books published in 2002–2003 and divided the documents created or filled in by the editors into six categories (Table 1). We also studied 70 official forms (including administrative and financial forms) used by the editorial sections.

Our observation shows that there are inconsistencies in the filing of data or reports, for example, where 41 projects were published, there should exist 82 reports in the total collection and 41 guidelines, one for each project, considering that each project has to undergo 2 different committee meetings before approval (JKE & JKP), thus at least 2 reports in every file is expected. Misplaced, missing reports or data and inconsistencies in filing occurs widely using the manual conventional system.

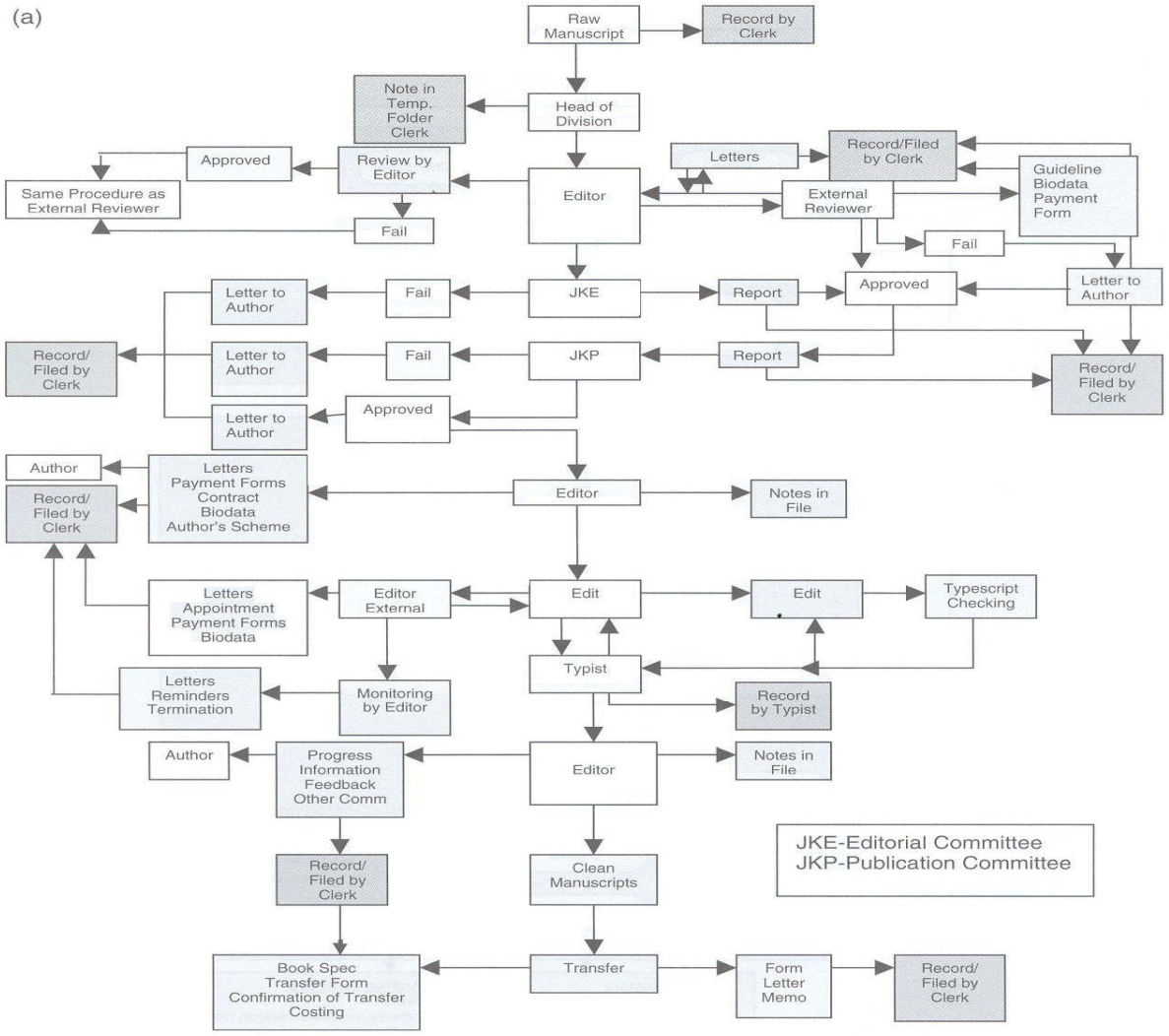

Figure 4. (a) Conventional processes; (b) electronic processes.

By adopting a Content Management system groups of elements in the workflow could be integrated into one database that could be accessed automatically via the electronic system. Integration is also characterised in having cross functional groups, direct management contact at all levels and integrative divisions (Figure 3b). Integration is seen in the structures and in the integration of data, documents and manuscripts in databases. Disintegration of the

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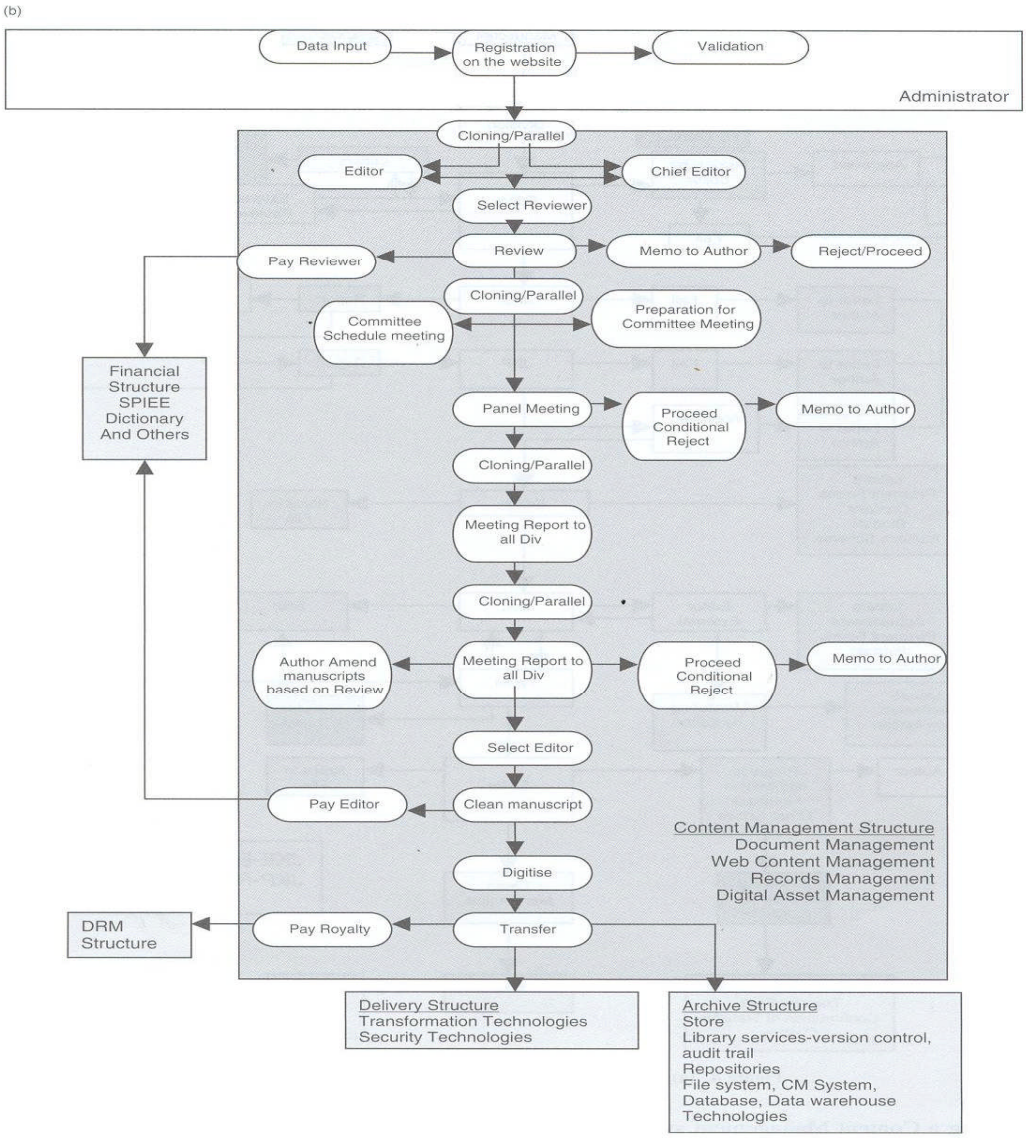

Figure 4. *(Continued)*

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Table 1. Categorisation of documents in the editorial phase

	Forms	Letters	Memos	Claims	Reports	Guidelines
No. of documents	107	152	90	97	15	1
Percentage	23.16%	32.90%	19.48%	21.00%	03.25%	00.22%

system is characterised by the extended boundaries now available by IT communications between divisions, departments and between its authors.

Linkages between various elements across super system

In this section of the study we look at the overall structure of the Agency and study the elements that are linked to editors and the editorial phase in conventional and electronic environments. New linkages in the form of interrelated activities exist within the super system. All Administrative Forms could be accessed, filled in and sent back online within the system.

Substitutions within the subsystem

Through digitisation and manipulation of data within the electronic phase, the typesetting and proofreading process substituted with these two processes. **Cannibalisation** occurs in the support group and typescript reading. Substitutions also occur in the way documents, data and manuscripts are transferred from one section to another. Substitution of roles and workforce occurs with changes in its system.

ISSUES

This study confirmed that disruptive innovation is occurring within the Agency with the introduction of technology, which are proven by the changes in standards, architecture, integration and disintegration of elements, linkages and substitutions within the system. Effects of disruption in the publishing industry are discussed further by Daut Mohmud and Sackett (2005).

Disruption of workforce

In the conventional editing phase, only one editor is normally assigned to a project to ensure the consistency, flow of language and context and individuality of style of the text, which contributes to the professionalism and strength of the manuscript. The work of editors are helped by typists, external editors and typescript readers.

In the electronic environment, the editor edits the manuscript on screen, no typists are needed to make corrections, and no comparison of drafts and original is needed. A 500-page manuscript conventionally edited will need seven typists to make corrections for the first draft. In the publication of compilation of works, we look at manuscripts handled by several editors due to the fact that much administration work is needed for this type of publication. In the electronic environment, the workload in administrative areas will be reduced and editors could be assigned an entire compilation project, which ideally, is the best solution in producing better manuscripts. The introduction of cloning or parallel system could also be implemented.

Creative disruption

In the context of this study we noticed that many experienced editors, that is editors with more than 10 years of working experience, make more corrections or editings compared to editors with less experience. These editors registered higher editing marks. All corrections made were based on the standards applied at the Agency. In accordance with this, we suggested that the more editing conducted on the text, the more creative the editors in their work, as long as they adhere to the standards mentioned. This shows the sensitivity, quality of work, assertiveness, decisiveness, criticism and creativity of the editors, though not all the corrections are the same.

DOI: 10.1002/pad

In comparison with editing on screen, 13 texts edited from the 20 given by skilled editors were actually more highly edited manually than electronically, suggesting that editing on screen reduces creativity. A creative disruption seems to occur among editors with the introduction of technology in knowledge intensive work. This is also supported by Bawden and Robinson (2000) and Lyytinen and Rose (2003); the highly specialised forms of scholarship which thrive in a print-based academic culture may be under threat with the introduction of technology transformation.

STRATEGY AND DISCUSSION

Content management strategy

The Content Management Strategy adopted is based on Harris-Jones (2004), where content is a real business issue, and over 90% of all content is unstructured. Therefore, a content audit is performed to understand the organisation's content, to develop content management strategy.

We proposed an integrated web publishing process model and associated supporting system with centralised repository for storing submitted contents which has proved essential for the automating process (Dzlina, 1999). The integrated model is easy and cheap to maintain, scalable with little resources and budget, unrepetitive and less tedious which is in compliance with the Malaysian Public Sector Open Source Software Initiative. The system is able to perform e-publishing and e-business functions, precise tracking of data, processes, tasks, produce detailed data and reports. It has proven to reduce staff production time and expenses and is able to control and maintain high quality contents on the site.

Increased performance and efficiency

Our measurements of the agency's KPIs indicated clearly that transformation increased the performance of the sector in terms of reducing manuscript production time and volume of work. Efficiency is shown in the time taken to transfer one task to another, cost reduction and reducing work load, work force and time taken to complete a task. In more than 80% of cases studied, the speed of electronic editing increased compared to on paper editing by up to 33% depending on the IT skills of these editors. With training, accustomisation to IT applications in editing, the speed will keep on increasing. Total editorial cost decreases with the introduction of electronic publishing. The cycle times of activities and processes are reduced and simplified with the reduction of preparation of several drafts and the multiple steps taken to complete one task. Organisation downsizing occurred by up to 35% of staff while the amount of work produced increased by 40%.

Changes in role

The four main new roles in the electronic publishing industry are CIO, Web Designer, responsible for the production of graphic contents, Web editor (Editor), responsible for the production of textual contents, Content Manager (Chief Editor), responsible for overseeing all of content development activities of the site, and Web Specialist, responsible for technical support to the content development team, programming mark-up language to facilitate content development, and managing the contents in uploading, downloading, updating, backing up and archiving contents.

E-Government strategy

In addressing the e-government strategy, we aligned the business process reengineering to the Malaysian Public Sector Open Source Software (OSS) Initiative, where workflow systems used must be in compliance with WfMC specifications and its web applications in compliance with W3C and related WWW protocols.

Addressing the paradigm shift professionally

Top managers supported the transformation, but this group of decision makers is not aware that the technology in this case is used in decision making, establishing strategic business ventures, change of objectives in the business

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network, enhancement of services, change of structures and roles, change of integration and change of products and processes which may create disruptions. In many cases, the support showed by top managers does not translate into infrastructure and funds or the translation takes too long to materialise.

Readiness of non-human factors to transform

Competency of the system adopted often becomes a barrier in a successful transformation. In a survey conducted by Hammonds (2001) among barriers encountered in the adoption of e-commerce with regards to system competency are payment system, interfaces, security and encryption. Therefore, companies that are ready to transform must be ready to face these barriers.

In tackling administrative works, our surveys discovered that officers are still doubtful about the use of the internet as the main storage body and its reliability on security issues.

The need for a new work procedure manual

Since transformation changes many aspects of the process, business and work force, there is an immediate need for a new set of manual on work procedures, to comply with the government policies as well as to assist the agencies affected. Since most of the task or decision-making will be conducted or completed by a support system, the manual may need to focus more on the parts where exceptions are made or established and how this should be handled.

Technology transfer

Most government agencies have their own computing or IT sections. However, non-existence of knowledge on business, management and IT culture drives the IT sections to employ or subcontract minor and major development in IT infrastructure, services and systems. Investments were made in IT solutions without consideration to IT or technology transfer, leading to a section that is reliant on external expertise and unable to develop outside the limit of what already exists.

The e-publishing portal

The e-publishing portal has its limitations. Being too ambitious it is in danger of becoming too big, too cluttered and a little lost in its world. The corporate image needs to better communicate its corporate strategy, branding and policies, and retain its organisational values. It has to take into consideration bigger issues on interface, customer service, accessibility, navigability whilst retaining simplicity and quality. Transactions issue is another point that will need to be considered. These drawbacks might hamper future progress and sustainability. If it is to become the storefront of an online business, it has to be adequately prepared to meet customers needs and demands (Daut Mohmud and Sackett, 2005).

CONCLUSION

The impact of KaryaNet has been broad and deep. As the only one of its kind in Malaysia it has to be visible, useful and valued for its academic purpose. To meet its expanding business, it has to learn from the success stories of website giants who credit their success to the clarity of the websites mission, the content offered, appearance and performance of the design elements and the publicity the website has generated.

In the government publishing industry, the business sector is clouded by the typical government inefficiencies. In our case Agency, e-government issues such as transparencies, authoritative administration, lack of standards in organisation and common standards among agencies has hindered the radical transformation progress. The workflow and management system designed for the editors has increased performance, productivity, efficiency, cost reduction, precise tracking of data, processes, tasks, detailed data and reports. However, the introduction of IT also contributes towards a disruption in the publishing industry, which is a cause of concern. In the form of creative disruption, further research will be needed to establish a more detailed view on this subject, possibly viewed in comparison with other creative areas undergoing innovation.

Public Admin. Dev. **27**, 27–38 (2007)
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The current e-government efforts have not revolutionised the way government operates due to many restrictions imposed on government agencies. It has resulted in small-scale automation using proprietary electronic systems or large-scale operations with huge investments without solid background research into a viable and sustainable e-government strategy and with little consideration for common standards to enable sharing of information and systems among the various agencies. The landscape of e-government applications impacts citizen-government, business-government and government-government transactions, but until the very core of government policies are fully implemented to adapt to more transparencies and online communities, transformation to achieve the e-government vision will be difficult.

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