

**Digital Innovations as Correlates of Book Design and Illustration in Evans Brothers
Publishers and College Press Limited**

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Ibadan, Oyo State, Nigeria**

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Certification

This is to certify that this study was conducted under my supervision by Tolumoye Favour Waribagha (LCU/PG/001649) for the award of Master of Science Degree (MSc.) in Mass Communication and Media Technology, Faculty of Communication and Information Science, Lead City University, Ibadan, Nigeria

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Dedication

This project is dedicated to Almighty God

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Acknowledgement

Firstly, my sincere appreciation goes to God Almighty for His love and mercy, I'm nobody without you. I owe a deep gratitude to my supervisor, Dr. Bayo Busari, for his patience and

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My sincere indebtedness goes to my Mum Mrs Atonye Waribagha for her support, love and encouragement during the course of my study and this research work. I love you mum.

Although the above-mentioned institutions and persons have assisted in the process of this research work, I alone stand responsible for the errors, if any, found in the work.

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Abstract

This study seek to identify the influence of technological innovation on book design and illustration in publishing firms using Evans Brothers Publishers and College Press Limited as a case study. The research design used was the descriptive survey. The population of the study consisted of all staff working at the publishing unit of Evans Brothers Publishers and College Press Ltd, Ibadan, Oyo State) which is made up of 400 full time employee. Primary data were collected using the questionnaire instrument and a total of 212 staff was selected using Taro Yamane. Multiple regression was used with the aid of Statistical Package for Social Sciences (SPSS) version 23.0 to test the hypothesis. The regression analysis revealed that the p-value (0.00) for the independent variable is significant at the 0.05 level of

significance; the R^2 of 0.87 has moderate explanatory power for the variation in the dependent variable (book design and illustration) and it is moderately fit of the regression, the calculated F of 19.937 is significant at $p=0.00$. Therefore, H_0 was rejected. The findings revealed that digital printing, typography and graphics design are the means of book design and illustration, web publishing, digital printing, and e-commerce are the technological innovation used for book design and illustration, all other technological innovations except e-book has a high level of use in Evans Publishers and college Press for book design, majority of the means on influence of technological innovations on book design and illustration in publishing firms showed moderate level, challenges in using technological innovation are high cost, poor power supply, poor communication, problem of copyright, Lack of Skilled Manpower and Piracy. The study therefore, recommends that publishers should include the development of e-book as part of technological innovations. Also the management of publishing companies should endeavour to recruit skilled manpower in order to improve productivity, stiffer laws should be put in place by the government and other stakeholders against back door productions.

Keyword: : Digital-Printing, E-Commerce, Press, Web-Publishing, Technological-Innovations, Typography,

Word Count: 318 words

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List of Acronyms

CD-ROM-	Compact Disc Read-Only Memory
CPA-	Certified Public Accountant
DOI-	Digital Object Identifier
DTP-	Desktop Publishing
EDI-	Electronic Data Interchange
GSM-	Global System for Mobile Communications
MIME-	Multipurpose Internet Mail Extensions
TIM -	Technological Innovation Management
WIO-	World Intellectual Property Organization
WYSIWYG-	What-You-See-Is-What-You-Get

Chapter One

Introduction

1.1 Background to the study

Book design is the art of incorporating content, format, style, and all the components of a book into a coherent unit¹. It turns a manuscript into a finished product that can be printed, sold, and distributed. Before the digital era, this task was left to the experts at publishers and print shops. Nowadays, specialised software makes this process available for anyone that wants to try it. And book layout templates really help to speed up the process.

With a good book design, there must be an appropriate illustration of the contents. Book illustration has existed in some form since the advent of the written word. The tradition that has guided modern book illustration originates in western literature dating back to 15th-century block books, in which the text of a book was carved into the same block as the

image². These works were a natural progression from the older illuminated manuscript form. As most famously seen in the *Biblia Pauperum* (“Pauper’s Bible”), they look something like medieval graphic novels². More specifically, the practice of publishing adult fiction accompanied by representational images is strongly linked with 18th- and 19th-century western literature, and the rise of the novel. The illustration of manuscript books was well established in ancient times, and the tradition of the illuminated manuscript thrived in the West until the invention of printing¹. Other parts of the world had comparable traditions, such as the Persian miniature. Modern book illustration comes from the 15th-century woodcut illustrations that were fairly rapidly included in early printed books, and later block books². Other techniques such as engraving, etching, lithography and various kinds of colour printing were to expand the possibilities and were exploited by such masters as Daumier, Doré or Gavarni².

Technological innovations in publishing incorporates several characteristics including an infrastructure that gives multiple options with digital content available in various formats and viewing modes according to customer requirements and basic editing processing and updating of information on the server, leading to reductions in processing time and the fast, efficient transmission of content, with subsequent economic benefits¹. In a wider business context, the advent of technologies for book designing and illustration has brought the promise of new markets, products and services and potentially an end to perennial problems such as those of book returns and the rigid impositions of print runs. It has also raised the spectre of disappearing entry barriers to traditional markets, the disintermediation of long-established value chains and relentless conglomeration and competition². This said, even the latest technological innovations and applications are at best enabling mechanisms whose adoption must relate to the overall business strategy and purpose of the organization³.

Publishing has been an early participant in developments in electronic commerce, initially at some cost as evidenced in the original dotcom boom and crash in the 1990s⁴. In those days, publishers enthusiastically embraced the prospect of new markets in electronic publishing, largely on the basis of CD-ROM technology, only to fall victim to the combined perils of hype and over- expectation and a mismatch between available technology and what the market was willing to pay for. Currently, combined with the maturation of e-commerce technologies for ordering, sales and delivery, the book designing and illustration sector is in a position to take advantage of global, daily networks and a diverse range of hardware and software developments that promise (or threaten) to revolutionize advances in back and front-end systems, in formats and markets and in value chains and business models⁵. Although the industry is still mindful of the lessons learned in the dotcom crash, it is also having a perception of the opportunities presented by digital technologies and would be reluctant to pass up on them should they materialize⁶. Despite a somewhat mixed profile with some areas still in their infancy and others approaching best practice status, the impact of technological innovations on book designing and illustration is already all encompassing. From ownership of rights, through digitization of internal workflow processes, to sales and marketing of both physical and electronic content, digitization is changing the methods by which publishers conduct their business⁷.

Although content management systems for the re-use and repurposing of published materials may have been slower to catch on in the book designing and illustration sector than in other areas of publishing, technology for recording rights and permissions and facilitating licensing and payments from clients is important in book designing and illustration, as is publishing-on- demand⁸. The benefits of technological innovations in terms of supply chain improvements will vary with the different players in the supply chain which include book publishers, distributors, wholesalers and retailers, and with both production and transaction

processes. In general, however, innovative technologies are driving efficiencies and reducing costs, while facilitating the re-use of content and closer relationships with customers⁹.

Traditionally, the publishing industry has played a key role in the dissemination of knowledge and for centuries was a forerunner of what today would be described as a knowledge-based business¹⁰. The publishing industry emerged on the basis of one of the greatest technological advances of all time, the invention of moveable type, and since the earliest days has been highly dependent upon technological change. The advent of technological innovations has potentially limitless implications for publishing both in hard copy and electronic formats. Combined with advances in electronic commerce, it offers the prospect of new value propositions and business models for those who are able to take advantage of developments in digital technology. This includes implications for business processes and relationships and potential disintermediation of the traditional linear progression from the creator of content (the author) through a series of intermediaries including: printers, publishers, distributors and booksellers and the delivery of the finished book in hard copy format to readers¹¹.

The roles of authors, publishers, reviewers, and readers are changing and overlapping as alternatives to traditional publishing channels emerge in the digital world¹². Book design involves the art of incorporating the content, style, format, design, and sequence of the various components and elements of a book into a coherent unit while book illustration involves decoration, interpretation or visual explanation of a text, concept or process designed for integration in print and digital published media¹³. Content creation, review and publication, dissemination and distribution, and response, all steps in the publication process, have new digitally based alternatives which are causing disruptions in the publishing world¹. Books and journals are no longer issued primarily in paper formats. Established trade and

academic publishers are not the only means through which intellectual and creative works can be disseminated to a wide readership. Influential reviews take the form of long essays as well as anonymous website comments or tweets. Finally, many authors, both popular and academic, are employing various modes of self-publishing¹⁴.

The academic system of tenure and promotion, tied to traditional academic publishing models, is inherently conservative¹⁵. Nevertheless, some academics have been at the forefront of developing innovative channels of creation, dissemination, and review of their work. At the same time, innovations in book designing and illustration, particularly in the creation of application software for mobile devices, self-publishing, and alternative pricing models, continue to bring about enormous changes to the broader publishing landscape¹⁶. This study is focused on the influence of technological innovation on book design and publishing in Evans Publishers and College Press and in particular, the means employed, technological innovations used, the level of use of technological innovations, the influence and challenges faced by the publishing firm. The interpretation of technological innovations as used in this study goes beyond its formal definition as the conversion of non-digital material (pictures, books, maps, moving images, manuscripts and sound) into digital format, to embrace the social and economic aspects of digitization but also its impact on organizations and markets, on products and services and on roles and relationships in publishing firms.

1.2 Statement of the Problem

Before the advent of technology, traditional book design, illustration and publishing and all the written elements were done by special technicians called typesetters. The original printing presses were huge machines with metal trays that had to be filled by hand, letter by letter to complete a sentence or a paragraph. It requires great expertise, consumes more time, costly, difficult to understand and repair and generates little revenue. Today, the technological

innovation in book design and illustration faces a high level of optimism. Due to technological innovation, e-book market had exceeded expectations and had reached the \$1 billion mark. Even before these figures were released, publishers had reported significant growth in their e-book sales.

Despite these promising reports, the future of publishing is still highly speculative: It is not clear when and to what extent publishers will move into digital publishing or if and when the market will truly embrace technological innovations facing publishing sectors. But whether or not technological innovations will eventually usurp printed books in the marketplace, publishers cannot afford to ignore the vast opportunities created by it. Publishers, and their technology and service partners, the challenge over the next few years will be to invest wisely in technology and process improvement, while simultaneously being aggressive about pursuing new business models. In such a speculative environment, research is needed to ascertain the influence of technological innovation on book design and illustration in publishing firms using Evans Brothers Publishers and College Press Limited as a case study.

1.3 Aim and Objectives of the study

The aim of this study is to examine the influence of technological innovation on book design and illustration in Evans Publishers and College Press. The specific objectives are to:

- i. find out the means of book design and illustration at Evans Brothers Publishers and College Press Ltd
- ii. identify technological innovation used for book design and illustration in Evans Brothers Publishers and College Press Ltd.
- iii. ascertain the level of use of technological innovation in Evans Brothers Publishers and College Press Ltd for book design and illustration.

- iv. ascertain the influence of technological innovation on book design and illustration in Evans Publishers and College Press
- v. Identify the challenges faced in using technological innovation for book design and illustration in Evans Publishers and College Press

1.4 Research Questions

The study aims to answer the following questions:

1. What are the means of book design and illustration at Evans Brothers Publishers and College Press Ltd?
2. What is the technological innovation used for book design and illustration in Evans Brothers Publishers and College Press Ltd.?
3. What is the level of use of technological innovation in Evans Publishers and college Press for book design and illustration?
4. What is the influence of technological innovation on book design and illustration in Evans Brothers Publishers and College Press Ltd?
5. What are the challenges faced in using technological innovation for book design and illustration in Evans Brothers Publishers and College Press Ltd?

1.5 Research Hypothesis

H₀: There is no significant influence of technological innovation on book design and illustration in Evans Publishers and College Press.

H₁: Technological innovation does not significantly influence on book illustration in Evans Publishers and College Press.

1.6 Significance of the Study

The findings of this study are considered to be of great importance to publishing firms and institutions, publishers, booksellers, and various stakeholders in publishing industry for several reasons. This study will help uncover critical areas and contribute to local literature on the subject, which in turn could be used by relevant authorities in improving their publishing initiatives. Publishers will realize the importance of technology in book designing and illustration as a means of up-skilling their publishing and marketing abilities.

The findings of this study will rebound to the benefit of publishing institutions by providing them important insights into technological integrated innovations, enabling them to strengthen their programs to better prepared to deal with the diverse influence of numerous innovations in technology. Furthermore, the study will make considerable contribution through its findings by revealing the various technological innovations emerging in the publishing world and its influence on book designing and illustration. Notably, the findings will be of great value to the publishing firms as it will also present important information to about the benefits of technological innovations and enabling them to include or improve on existing forms used in the press.

With regard to the relevance of technological innovations in publishing and marketing, potential of a variety of technologies could be assessed by the emerging indigenous publishers and booksellers. Subsequently, the recommendations of the study, if implemented, will allow publishing firms to create an efficient and effective process of book designing and illustration which will be beneficial to the publishing firms.

1.6 Scope of the Study

This study is focused on examining the influence of technological innovation in book design and illustration using Evans Publishers and College Press as area of study, the staffs of the press will serve as the respondents for the study. The justification for the choice of Evans and College press as the study area is because the press serves as platform in which educational materials is shared to different educational institutions.

1.7 Operational Definitions of Terms

Book Designing: this is the art of putting the content, style, format, design and sequence of various components and elements that is in a book into an orderly manner and unit

Book Illustrations: this involve the form of art that is used to create or draw pictures and images for books in order to enhance its meaning

Digital Contents: this are contents or information or files that exists in the form of digital data. They can be viewed through broadcast, streamed or contained in computer files

Digital Technologies: in this context, these are digital tools that allow publishers to share various books in different format globally. Some examples of these are: smartphones, laptop, internet, twitter, blogs, etc.

E-Publishing: Also known as electronic publishing, involves digital publications of e-books, magazines and development of digital libraries and catalogues

Illustration: This is a decoration, interpretation or visual explanation of a text, concept or process designed for integration in print and digital published media

Information and Communications Technology (ICT) is an extensional term for information technology (IT) that stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals) and computers, as

well as necessary enterprise software, middleware, storage and audiovisual, that enable users to access, store, transmit, and share information.

Online Publishing Platforms: Online platforms are channels that aid online publishing such as text, telegram, wedcast, goggle, blogs, etc.

Publishing Firms: these are companies or industries involving in publishing such as Evans and College Press

Publishing: this is the activities involved in making information, literature, music, software and different contents available to the public for sale or for free

Technological Innovation: these are sets of new product, procedures or process in publishing whose technological characteristics are significant from previously used process or products.

Traditional Publishing: this involves when a publisher offers the author a contract and in turn, prints, publishes and sells the book through booksellers and other retailers

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Chapter Two

Literature Review

To provide empirical background to this study and also make this work comprehensive, the literature will be reviewed under the following sub-headings:

- 2.1 Conceptual Review
- 2.2 Theoretical Framework
- 2.3 Review of Empirical Studies
- 2.4 Conceptual framework
- 2.5 Summary of the Reviewed Literature

2.1 Conceptual Review

2.1.1 Book Designing

Book design is the art of incorporating the content, style, format, design, and sequence of the various components and elements of a book into a coherent unit. Book design, "though largely forgotten today, relies upon methods and rules upon which it is impossible to improve, and which have been developed over centuries. To produce perfect book, these rules have to be brought back to life and applied"¹. Book design is "an arcane subject", and refers to the need for a context to understand what that means. Modern books are paginated consecutively, and all pages are counted in the pagination whether or not the numbers appear. The page number, or folio, is most commonly found at the top of the page, flush left verso, flush right recto. The folio may also be printed at the bottom of the page, and in that location, it is called a drop folio. Drop folios usually appear either centred on each page or flush left verso and flush right recto^{1,2}.

2.1.1.1 Front Matter

Front matter comprises the first section of a book, and is usually the smallest section in terms of the number of pages. Front-matter pages are traditionally numbered in lower-case Roman numerals (i, ii, iii, iv, v, etc.), which prevents renumbering the remainder of a book when front matter content is added at the last moment, such as a dedication page or additional acknowledgments. Page number is omitted on blank pages and display pages (i.e., such standalone pages as those for the half title, frontispiece, title page, colophon, dedication, and epigraph), and it is either omitted or a drop folio is used on the opening page of each section of the front matter (e.g., table of contents, foreword, preface).¹¹¹ Front matter generally appears only in the first of a multi-volume work, although some elements (such as a table of contents or index) may appear in each volume. The following table defines some common types of front matter, and the "voice" (or point of view) in which each can be said to be given:

Table 2.1: Common Types of Front Matter and the Voice¹.

Name	Voice	Purpose
Half title	Publisher	A mostly-blank page at the front of the book block which precedes the title page and contains only the title (omitting the subtitle, author, publisher, etc. found on the full title page) and occasionally includes some slight ornamentation. The title traditionally appears on the page as a single line in capital letters, but modern half title pages may be scaled-down versions of the typography from the full title page. The half title page faces a blank verso or an endpaper.
Frontispiece	Author publisher	A decorative illustration on the verso facing the title page. It may be an image related to the book's subject or a portrait of the author. Frontispieces have become less common, with a list of the author's previous works or other titles in a multi-author series frequently taking the place of the frontispiece.
Title page	Publisher	Repeats the title and author as printed on the cover or spine, often using typographic elements carried over from either the cover design or from the rest of the book's interior. Title pages may also include the publisher's logo accompanied by the city and/or year of publication.
Colophon	Publisher and printer	Technical information such as edition dates, copyrights, typefaces and translations used, and the name and address of the publisher or printer. It usually appears in modern books on the verso of the title page, but in some books is placed at the end (see Back matter).

		Lengthy colophons for books collecting material from multiple copyrighted works may continue onto pages in the back matter if it will not fit on a single page. Also known as the Edition notice or Copyright page.
Dedication	Author	A dedication page is a page in a book that precedes the text, in which the author names the person or people for whom he/she has written the book.
Epigraph	Author	A phrase, quotation, or poem. The epigraph may serve as a preface, as a summary, as a counter-example, or to link the work to a wider literary canon, either to invite comparison, or to enlist a conventional context.
Table of contents	Publisher Some	This is a list of chapter headings and sometimes nested subheadings, together with their respective page numbers. This includes all front-matter items listed below, together with chapters in the body matter and back matter. The number of levels of subheadings shown should be limited, so as to keep the contents list short, ideally one page, or possibly a double-page spread. Technical books may include a list of figures and a list of tables
Foreword	person other than the author	Often, a foreword will tell of some interaction between the writer of the foreword and the writer of the story, or a personal reaction and the significance the story elicited. A foreword to later editions of a work often describes the work's historical context and explains in what respects the current edition differs from previous ones.
Preface	Author	A preface is generally the author recounting the story of how the book came into being, or how the idea for the book was developed. This is often followed by thanks and acknowledgments to people who were helpful to the author during the time of writing.
Acknowledgments	Author	Sometimes part of the preface rather than a separate section in its own right, or sometimes placed in the back matter rather than the front, it acknowledges those who contributed to the creation of the book.
Introduction	Author	A beginning section which states the purpose and goals of the following writing.
Prologue	Narrator (or character in the book)	Usually present in fiction or narrative nonfiction, the prologue is an opening to the story that establishes the setting and gives a background details, often from some earlier or later timeframe that ties into the main one. As such, it is generally considered part of the body in modern book organization (cf. Chicago Manual of Style).

2.1.1.2 Body Matter

The structure of a work and especially of its body matter is often described hierarchically¹¹¹.

1. Volumes: A volume is a set of leaves bound together. Thus, each work is either a volume, or is divided into volumes.

2. Books and parts: Single-volume works account for most of the non-academic consumer market in books. A single volume may embody either a part of a book or the whole of a book; in some works, parts encompass multiple books, while in others, books may consist of multiple parts.
3. Chapters and sections: A chapter or section may be contained within a part or a book. When both chapters and sections are used in the same work, the sections are more often contained within chapters than the reverse.
4. Modules and units: In some books the chapters are grouped into bigger parts, sometimes called modules. The numbering of the chapters can begin again at the start of every module. In educational books, especially, the chapters are often called units.

The first page of the actual text of a book is the opening page, which often incorporates special design features, such as initials. Arabic numbering starts at this first page. If the text is introduced by a second half title or opens with a part title, the half title or part title counts as page one. As in the front matter, page numbers are omitted on blank pages, and are either omitted or a drop folio is used on the opening page of each part and chapter. On pages containing only illustrations or tables, page numbers are usually omitted, except in the case of a long sequence of figures or tables¹. The following are two instructive examples:

1. The Lord of the Rings has three parts (either in one volume each, or in a single volume), with each part containing two books, each containing, in turn, multiple chapters.
2. The Christian Bible (usually bound as a single volume) comprises two "testaments" (which might more typically be described as "parts", and differ in length by a factor of three or four), each containing dozens of books of varying lengths. In turn, each book (except for the shortest) contains multiple chapters, which are traditionally

divided (for purposes of citation) into "verses" each containing roughly one independent clause.

2.1.1.3 Back Matter (End Matter)

The back matter, also known as end matter, if used, normally consists of one or more of the following components:

Table 2.2: Components of Back Matter¹.

Name	Voice	Purpose
Epilogue	The narrator (or a character in the book)	This piece of writing at the end of a work of literature or drama is usually used to bring closure to the work.
Extro or Outro		The conclusion to a piece of work; this is considered the opposite of the intro. These terms are more commonly used in music.
Afterword	The author, or some other real person	An afterword generally covers the story of how the book came into being, or of how the idea for the book was developed.
Conclusion	Author	
Postscript		
Appendix or Addendum	Author	This supplemental addition to a given main work may correct errors, explain inconsistencies or otherwise detail or update the information found in the main work.
Glossary	Author	The glossary consists of a set of definitions of words of importance to the work. They are normally alphabetized. The entries may consist of places and characters, which is common for longer works of fiction.
Bibliography	Author	This cites other works consulted when writing the body. It is most common in non-fiction books or research papers.
Index	Publisher	This list of terms used in the text contains references, often page numbers, to where the terms can be found in the text. Most common in non-fiction books.
Colophon	Publisher	This brief description may be located at the end of a book or on the verso of the title page. It describes production notes relevant to the edition and may include a printer's mark or logotype.
Postface		

2.1.1.4 Front Cover, Spine, and Back Cover of the Dust-Jacket

The front cover is the front of the book, and is marked appropriately by text or graphics in order to identify it as such (namely as the very beginning of the book)^{1,3}. The front cover

usually contains at least the title or author, with possibly an appropriate illustration. On the inside of the cover page, extending to the facing page is the front endpaper sometimes referred as FEP. The free half of the end paper is called a flyleaf. Traditionally, in hand-bound books, the endpaper was just a sheet of blank or ornamented paper physically masking and reinforcing the connection between the cover and the body of the book¹. In modern publishing it can be either plain, as in many text-oriented books, or variously ornamented and illustrated in books such as picture books, other children's literature, some arts and craft and hobbyist books, novelty/gift-market and coffee table books, and graphic novels. These books have an audience and traditions of their own where the graphic design and immediacy is especially important and publishing tradition and formality are less important^{1,4}.

The spine is the vertical edge of a book as it normally stands on a bookshelf. Early books did not have titles on their spines; rather they were shelved flat with their spines inward and titles written with ink along their fore edges. Modern books display their titles on their spines. In languages with Chinese-influenced writing systems, the title is written top-to-bottom, as is the language in general. In languages written from left to right, the spine text can be pillar (one letter per line), transverse (text line perpendicular to long edge of spine) and along spine^{1,5}. Conventions differ about the direction in which the title along the spine is rotated:

2.1.1.5 Top-to-Bottom (Descending)

In texts published or printed in the United States, the United Kingdom, the Commonwealth, Scandinavia and the Netherlands, the spine text, when the book is standing upright, runs from the top to the bottom. This means that when the book is lying flat with the front cover upwards, the title is oriented left-to-right on the spine. This practice is reflected in the industry standards ANSI/NISO Z39.41⁴ and ISO 6357⁵ but "lack of agreement in the matter

persisted among English-speaking countries as late as the middle of the twentieth century, when books bound in Britain still tended to have their titles read up the spine”.

2.1.1.6 Bottom-to-Top (Ascending)

In most of continental Europe and Latin America, the spine text, when the book is standing upright, runs from the bottom up, so the title can be read by tilting the head to the left. This allows the reader to read spines of books shelved in alphabetical order in accordance to the usual way left-to-right and top-to-bottom. The spine usually contains all, or some, of four elements (besides decoration, if any), and in the following order: (1) author, editor, or compiler; (2) title; (3) publisher; and (4) publisher logo. On the inside of the back cover page, extending from the facing page before it, is the endpaper. Its design matches the front endpaper and, in accordance with it, contains either plain paper or pattern, image etc. The back cover often contains biographical matter about the author or editor, and quotes from other sources praising the book. It may also contain a summary or description of the book¹¹¹.

2.1.1.6 Binding

Books are classified under two categories according to the physical nature of their binding. The designation hardcover (or hardback) refers to books with stiff covers, as opposed to flexible ones. The binding of a hardcover book usually includes boards (often made of paperboard) covered in cloth, leather, or other materials. The binding is usually sewn to the pages using string stitching¹.

A less expensive binding method is that used for paperback books (sometimes called softback or softcover). Most paperbacks are bound with paper or light cardboard, though other materials (such as plastic) are used. The covers are flexible and usually bound to the pages using glue (perfect binding). Some small paperback books are sub-classified as pocketbooks. These paperbacks are smaller than usual small enough to barely fit into a

pocket (especially the back pocket of one's trousers)^{1,2}. However, this capacity to fit into a pocket diminishes with increasing number of pages and increasing thickness of the book. Such a book may still be designated as a pocketbook.

2.1.1.7 Other Items

Some books such as Bibles or dictionaries may have a thumb index to help find material quickly¹. Gold leaf may also be applied to the edges of the pages, so that when closed, the side, top, and bottom of the book have a golden colour. On some books, a design may be printed on the edges, or marbling or a simple colour applied. Some artist's books go even further, by using fore-edge painting. Pop-up elements and fold-out pages may be used to add dimensions to the page in different ways. Children's books commonly incorporate a wide array of design features built into the fabric of the book. Some books for pre-schoolers include textured fabric, plastic on other materials. Die-cut techniques in the work of Eric Carle are one example. Clear or reflective surfaces, flaps, textiles and scratch-and-sniff are other possible features.

2.1.1.8 Page Spread

A basic unit in book design is the page spread. The left page (called *verso*) and right page (called *recto*) are of the same size and aspect ratio, and are centred on the gutter where they are bound together at the spine. The design of each individual page, on the other hand, is governed by the canons of page construction^{2,3}. The possible layout of the sets of letters of the alphabet, or words, on a page is determined by the so-called print space, and is also an element in the design of the page of the book. Clearly, there must be sufficient space, at the spine of the book, if the text is to be visible. On the other hand, the other three margins of the

page, which frame the book, are made of the appropriate size for both practical and aesthetic reasons².

2.1.1.10 Print Space

The print space or type area determines the effective area on the paper of a book, journal or other press work. The print space is limited by the surrounding borders, or in other words the gutters outside the printed area^{4,5}.

2.1.2 Book Illustration

The illustration of manuscript books was well established in ancient times, and the tradition of the illuminated manuscript thrived in the West until the invention of printing. Other parts of the world had comparable traditions, such as the Persian miniature. Modern book illustration comes from the 15th-century woodcut illustrations that were fairly rapidly included in early printed books, and later block books¹. Other techniques such as engraving, etching, lithography and various kinds of colour printing were to expand the possibilities and were exploited by such masters as Daumier, Doré or Gavarni⁵.

Book illustration as we now know evolved from early European woodblock printing. In the early 15th century, playing cards were created using block printing, which was the first use of prints in a sequenced and logical order. "The first known European block printings with a communications function were devotional prints of saints." As printing took off and books became common, printers began to use woodcuts to illustrate them. Hence, "centres for woodblock playing-card and religious-print production became centres for illustrated books². Printers of large early books often reused several times, and also had detachable "plugs" of figures, or the attributes of saints, which they could rearrange within a larger image to make several variations^{2,3}. Luxury books were for a few decades often printed with blank spaces for manual illumination in the old way.

Unlike later techniques, woodcut uses relief printing just as metal moveable type does, so that pages including both text and illustration can be set up and printed together. However, the technique either gives rather crude results or was expensive if a high-quality block-cutter was used, and could only manage fine detail on atypically large pages. It was not suitable for the level of detail required for maps, for example, and the 1477 Bolognese edition of Ptolemy's *Cosmographia* was both the first book to contain printed maps and the first to be illustrated by engravings rather than woodcuts⁴. However hardly any further engraved illustrations were produced for several decades after about 1490, and instead a style of expensive books decorated in metal cut, mostly religious and produced in Paris, was a popular luxury product between about 1480 and 1540⁵. In the middle of the 16th century woodcut was gradually overtaken by the *intaglio* printing techniques of engraving and etching which became dominant by about 1560-90, first in Antwerp, then Germany, Switzerland and Italy, the important publishing centres⁶. It remained so until the later 19th century. They required the illustrations to be printed separately, on a different type of printing press, so encouraging illustrations that took a whole page, which became the norm.

Engraving and etching gave sharper definition and finer detail to the illustrations, and rapidly became dominant by the late 15th century, often with the two techniques mixed together in a single plate. A wide range of books were now illustrated, initially mostly on a few pages, but with the number of illustrations gradually rising over the period, and tending to use more etching than engraving. Particular kinds of books such as scientific and technical works, children's books, and atlases now became very heavily illustrated, and from the mid-18th century many of the new form of the novel had a small number of illustrations³.

Luxury books on geographical topics and natural history, and some children's books, had printed illustrations which were then coloured by hand, but in Europe none of the

experimental techniques for true colour printing became widely used before the mid-19th century, when several different techniques became successful. In East Asia colour printing with many different woodblocks was increasing widely used; the fully developed technique in Japan was called nishiki-e, and used in books as well as ukiyo-e prints. Lithography allowed for more textual variety and accuracy. This is because the artist could now draw directly on the printing plate itself^{5,6}.

New techniques developed in the nineteenth and twentieth centuries revolutionized book illustrations and put new resources at the disposal of artists and designers. In the early nineteenth century, the photogravure process allowed for photographs to be reproduced in books. In this process, light-sensitive gelatin was used to transfer the image to a metal plate, which would then be etched. Another process, chromolithography, which was developed in France in the mid- nineteenth century, permitted colour printing. The process was extremely labour intensive and expensive though as the artist would have to prepare a separate plate for each colour used. In the late twentieth century, the process known as offset lithography made colour printing cheaper and less-time consuming for the artist. The process used a chemical process to transfer a photographic negative to a rubber surface before printing⁸.

There were various artistic movements and their proponents in the nineteenth and twentieth centuries that took an interest in the enrichment of book design and illustration. For example, Aubrey Beardsley, a proponent of both Art Nouveau and Aestheticism, had a great influence over book illustrations. Beardsley specialized in erotica and some of the best examples of his drawings were for the first English edition of Oscar Wilde's *Salomé* (1894)⁸.

2.1.3 Technological Innovation

Technological innovation is an extended concept of innovation, while innovation is a rather well- defined concept, it has a broad meaning to many people, and especially numerous

understandings in the academic and business world¹. Innovation refers to adding extra steps of developing new services and products in the marketplace or in the public that fulfil unaddressed needs or solve problems that were not in the past². Technological Innovation however focuses on the technological aspects of a product or service rather than covering the entire organization business model. It is important to clarify that Innovation is not only driven by technology³.

Technological innovation is the process where an organization (or a group of people working outside a structured organization) embarks on a journey where the importance of technology as a source of innovation has been identified as a for increased market competitiveness new innovation- questions⁴. The term "technological innovation" is preferred to "technology innovation"⁵. "Technology innovation" gives a sense of working on technology for the sake of technology⁶. "Technological innovation" better reflects the business consideration of improving business value by working on the product or services' technological aspects⁷. Moreover, in a vast majority of products and services, there is not one unique technology at the heart of the system. The combination, integration, and interaction of different make the product or service successful⁸. If the process of technological innovation is formalized (typically within an organization: a company, a public entity, a think tank, a university, a publishing firm, etc.) it can be referred as Technological Innovation Management (or Technology Innovation Management [TIM])⁹.

The "management" aspect refers to the inputs, outputs and constraints a "Manager" or team of "Managers" are responsible to govern the process of technological innovation in a way that aligns with the company strategy¹⁰. In a context where Technological Innovation is not to be guided along known paths within the organization, the wording and concept of Technological Innovation Leadership is preferred¹¹. In many occasions, especially in start-ups and new

ventures, the Technological Innovation is performed in an unknown context. The boundaries and constraints of the Technology at work are not precisely know. Hence it requires leaders and not managers to give the vision and coach the team to explore the unknown part of the technology¹².

Technological Innovation is a continuous process, within an internal or external venture, build out to create value with innovation¹³; starts with the ideation process and ends-up with the commercialization of a viable product or service, in response to a proven market need; is a guide for the venture management to decide what technology directions to take, based on portfolio management, and execution monitoring; is driven by entrepreneurial/intrapreneurial spirit, supported by internal/external funding¹⁴.

Technological innovations have revolutionized the world and has brought about tremendous change on everything and person on the globe¹⁵. It is an axiom that technology since its emergence has turned the world to a global village. Examples of these technologies are computers, Internet, and the global system for mobile communications (GSM). Information has always played a very important part in human life¹⁶. However, in the mid-20th century, the role of information increased immeasurably as a result of social progress and the vigorous development in science and technology¹⁷. The world is experiencing information revolution and knowledge explosion which are being accelerated by Technology. The information age has made the world globalized as a unit such that information can easily be shared, from any part of the world. The effect of this is that information revolution and the use of technology, especially in the industrialized societies, have made the industrialized nations to be far ahead of the developing nations in the areas of technological innovation utilization¹⁸. The information age has made the world globalized as a unit such that information can easily be

shared from any part of the world. The effect of this is that people's life is being influenced in almost every angle¹⁹.

Information is power, power to influence, control or produce²⁰. It is the bases of everything a person does, it is considered as a resource, commodity etc. that is essential for survival and development²¹. Technology basically is a systematic and integrated organization of man, machine, ideas and procedures to achieve a desired goal. Technology is both a process and product; and over the years' man has invented various machines to aid survival and fulfilment. The introduction of computers, which is the major and most influential technology of the last millennium, has made the impact of technology felt in every field of endeavor²². Computing and telecommunication technologies have courage to unleash a lot of computing power and communication possibilities that must be harnessed for improving productivity and profitability. The power of converging technology is what has made the world a global village. Time has essentially been compressed and work content reduced²³. This has in turn brought social pressures, which are changing silently, the way work is done, amount of leisure time available, working schedules etc. no one knows precisely where the technology will head in the near future, but it is known that, for sure, in no distance time, technological tools will impact significantly on how humans live, transact business, how much leisure time is available, as well as social interactions, standard of living, and economic relationships among nations²⁴. Today people can freely talk about information technology, educational technology and information communication technology²⁵.

2.1.4 Publishing Industry

Many people have always misinterpreted publishing to mean printing. This is simply because of how publishing started in the country through the Christian missionaries printing presses in the colonial era²⁶. Publishing is more than printing²⁷; rather printing is an activity in the

publishing process. Publishing is the process of producing for dissemination, books, films, computer programmes, records, newspapers, periodicals, disc, bulletins, magazines and other literary materials, these can either be for free distribution or sale²⁸. It is a social responsibility to record human activity for posterity, provide entertainment and to inform. This definition inculcates the different activities involved in publishing²⁹. It shows that publishing interweaves a number of activities to bring about the production of a material³⁰. It also shows that published materials span past books, it includes other visual and audiovisual materials, that means that publishing should be for experts³¹. Publishing involves a chain of interrelated activities which are carried out by experts³². Traditionally, the publishing industry has played a key role in the dissemination of knowledge and for centuries was a forerunner of what today would be described as a knowledge- based business³³.

The publishing industry is an industry which is segmented into the book, newspaper and magazine industry³⁴. The publishing market is not simply a business. The products made in the publishing industry have a huge impact on the socio-political and cultural environment, for instance in education systems³⁵. Additionally, due to the increased popularity of online resources and e-books the publishing market is facing higher levels of competition. Competition in the publishing industry is affected by consumer spending which is strongly related to economic growth and employment levels³⁶, because of the higher levels of rivalry caused by the introduction of new technologies, such as printing on demand, e-books and online newspapers, society often claims that the publishing industry is dying^{36, 37}. While it is true that the publishing industry is undergoing a digital revolution, this revolution should be seen as a new opportunity, not as the end of the publishing industry³⁸.

The publishing industry emerged on the basis of one of the greatest technological advances of all time, the invention of moveable type, and since the earliest days has been highly

dependent upon technological change³⁹. The advent of technological innovations has potentially limitless implications for publishing both in hard copy and electronic formats⁴⁰. Combined with advances in electronic commerce,⁴¹ it offers the prospect of new value propositions and business models for those who are able to take advantage of developments in technology. This includes implications for business processes and relationships and potential disintermediation of the traditional linear progression from the creator of content (the author) through a series of intermediaries including: printers, publishers, distributors and booksellers and the delivery of the finished book in hard copy format to readers⁴².

Innovations in publishing incorporates several characteristics including an infrastructure that gives multiple options with different content available in various formats and viewing modes according to customer requirements and basic editing processing and updating of information on the server, leading to reductions in processing time and the fast, efficient transmission of content, with subsequent economic benefits⁴³. In a wider business context, the advent of technologies for book publishing has brought the promise of new markets, products and services and potentially an end to perennial problems such as those of book returns and the rigid impositions of print runs⁴⁴. It has also raised the spectre of disappearing entry barriers to traditional markets, the disintermediation of long-established value chains and relentless conglomeration and competition. This said, even the latest technological tools and applications are at best enabling mechanisms whose adoption must relate to the overall business strategy and purpose of the organization⁴⁵.

Publishing has also been an early participant in developments in electronic commerce, initially at some cost as evidenced in the original dotcom boom and crash in the 1990s⁴⁶. In those days, publishers enthusiastically embraced the prospect of new markets in electronic publishing, largely on the basis of CD-ROM technology, only to fall victim to the combined

perils of hype and over- expectation and a mismatch between available technology and what the market was willing to pay for⁴⁷. Currently, combined with the maturation of technologies for ordering, sales and delivery, the book publishing sector is in a position to take advantage of global, networks and a diverse range of hardware and software developments that promise (or threaten) to revolutionize advances in back and front-end systems, in formats and markets and in value chains and business models⁴⁸.

Although the industry is still mindful of the lessons learned in the dotcom crash⁴⁹, it is also having a perception of the opportunities presented by digital technologies and would be reluctant to pass up on them should they materialize⁵⁰. Despite a somewhat mixed profile with some areas still in their infancy and others approaching best practice status, the impact of digitization on book publishing is already all encompassing⁵¹. From ownership of rights, through digitization of internal workflow processes, to sales and marketing of both physical and electronic content, technology is changing the methods by which publishers conduct their business⁵².

Content management systems for the re-use and repurposing of published materials may have been slower to catch on in the book publishing sector than in other areas of publishing⁴³, technology for recording rights and permissions and facilitating licensing and payments from clients is important in book publishing, as is publishing-on-demand^{53, 54}. The benefits of technology in terms of supply chain improvements will vary with the different players in the supply chain which include book publishers, distributors, wholesalers and retailers, and with both production and transaction processes⁵⁵. In general, however, technologies are driving efficiencies and reducing costs, while facilitating the re-use of content and closer relationships with customers⁵⁶.

Publishing as we know it today is three-tier system⁵⁷. The accomplished publisher is one who is at home with each of the range of network⁵⁸. Publishing involves nurturing the idea of a book which comes through renowned and competent authors to the production and marketing of the books⁵⁹. The ideas are developed through gaps that publishers notice through evaluation of books already existing in the market or through market analysis⁶⁰. The publishers and authors work together on the ideas to develop them to manuscripts and then shape it properly for production, the decision to publish should be guided by an understanding of the market⁶¹. Book marketing is therefore a vital aspect of publishing which cannot be neglected⁶². Publishing is a process involving three stages:

- a. conception;
- b. production of the manuscript into a book and
- c. marketing and distribution.

The conceptual stage involves an author, editor, sales person, and head of a department or a literary agent who initiates the idea of a book to a publisher⁶³, while the production process involves the editorial, design and typesetting and the printing stages of a book manufacture or production⁶⁴. Marketing and distribution are the last stage of the publishing process which involves making the finished product available to the end users. The processes in publishing give room for various departments in the publishing house. This is to emphasize the expertise in the different activities carried out in publishing⁶⁵. The major departments include:

1. Administrative Department
2. Editorial Department
3. Production Department
4. Marketing Department.

Complementing this, the different activities performed in a publishing house are administrative/management, editorial, production (design and manufacturing) and

marketing⁶⁶. These jobs are done by different experts⁶⁷. Book publishing is “the whole intellectual work and procedure of selecting and arranging to make a book and of promoting its ultimate use”⁶⁸. The work of publishing begins after book is produced⁶⁹. Fifty percent of the publisher's job lies in the successful marketing and distribution of books⁷⁰. The difference between printing a book and offering it for sale and really publishing it lies in the quality of the job done by the promotion, advertisement and publicity managers⁷¹.

Above assertions stress the different activities of the publishing process which ends with marketing of the finished product⁷². The importance of marketing in publishing is also strongly stressed⁷³. Without a good plan to market or distribute, the publishing business is useless⁷⁴. The failure to adequately market books truncates the communication chain between the author and the reader, because until the reader receives the message, the communication process is not complete⁷⁵. The production of a message is important, but the adequate luring of the target audience to accept the product is right for them through the publishers' promotion and machinery is of paramount importance if the target audience is to be reached, investment recouped and optimum profit made⁷⁶.

2.1.5 Technology Innovation and Publishing

Technological innovations in this study simply refers to the collection of various technological facilities used by a publishing company in book publishing. It refers to the technological side of an information system^{76, 77}. It includes hardware, software, data bases, networks and other electronic devices. Technology allows professionals in the publishing industry a wide access to information stored in many places and to communicate and collaborate with stakeholders⁷⁷. In other words, it allows authors and publishers an opportunity to be partners in the global network of environment known as INTERNET, or its counterpart within a publishing organization known as INTRANET or EXTRANET which

helps to link various personnel and departments in the art profession and business of book publishing⁷⁸. Departments involved in the collaborative roles are as follows: Editorial, Design/Graphics, Print Production, Promotion /Marketing/Sales, Distribution and Warehousing, finance and Administration⁷⁹. Both the author and the printer who are external persons are also partners in the network. The author is there for any publisher in the same way the printer is there to print for any publisher⁸⁰. It may be right to suggest that the internet which is an aspect of information technology permits users to access information location in databases all over the world⁸¹.

Technology is not only changing the way books are published, but it is doing so much more quickly than any evolution with impacts that are far more reaching than other development. Almost all publishing companies who know its onion use technology to support its operations⁸². Technology helps to improve productivity, reduce cost, improves and fast track decision making, expose book editors and marketers to other views concerning how thing are done in other publishing companies with international reputation and therefore creating an opportunity for strategic application⁸³.

Technology has revolutionised all the activities of man, including the operations of the book publisher⁸⁴. The World Encyclopaedia refers to technology as all the ways people use their interventions and discoveries to satisfy their needs and desires⁸⁵. Thus, publishing technologies refer to the inventions or discoveries that are tailored towards improving the art, trade, and profession of book publishing. However, this new technology has ambiguous consequence as they portend both danger and promise, especially to the third world countries such as Nigeria⁸⁶.

Twenty-first centuries have revolutionized the publishing concept together with the processes of book production⁸⁷. Publishing refers to the dissemination of literature, music or

information⁸⁸. Basically, it is the activity of making information available to the general populace. Traditionally, the term was restricted to printed materials such as books and newspapers, but with the advent of digital information systems and internet, it has expanded the scope to include electronic resources⁸⁹. Whereby, publishers now have electronic versions of books, periodicals, websites, blogs, and video games among others of their published products that can be accessed. From the foregoing therefore, publishing is a medium through which information is communicated to the general public⁹⁰. Technological innovation facilities are an emerging technology which the publishing industry has keyed into, particularly the computer, telecommunication and internet technologies have greatly impacted on the publishing industry globally through the introduction of facilities that enhances e-book, e-economic, low volume production, internet book distribution., print-on-demand publications, emails, Electronic Data Interchange (EDI) and bar coding, Compact Disc Read-Only Memory (CD-ROM), word processing packages among others⁹¹.

In view of the above, technological facilities is applicable in all the aspect of the production and distribution in publishing⁹¹. Especially in areas like promoting, distributing and marketing books with modern technologies. The advantages or benefits of these facilities are enormous. For instance, e-Books can be sold in million copies within a very short period⁹². They can be easily accepted instantaneously worldwide, updated, revised, read, listened to and have colour or music added if need be. These facilities allow the publishers to enjoy the e-commerce privileges especially if they are on line. Products can be sold on time on websites or rather homes pages including advertising⁹³. Books and other items can also be sold through internet in net shop. Book sales on the internet through net bookshops are now 15% of the total books sold, with amazon.com, holding 80% of the market and barnarandnoble.com 10%. Besides e-book, CD-ROM has added to advantage to publishing. Several e-books could be copied on CD-ROMS and made them available for sale in market⁹⁴.

This had reduced the problems of strains on the eyesight, electricity power failure, portability, storage, conveyance or dissemination of information, and updating of the book content. Similarly, emails and telemarketing facilities uses telephone system such as the videophones to attract new customers worldwide while retaining existing ones. These facilities have the provision for recording and playing messages which could be used to advertise products and take orders⁹⁵.

In fact, emails have been further boosted with the introduction of Multipurpose Internet Mail Extensions (MIME) which has the ability to send messages electronically including formatted documents, photos, pictures, sound files and video files attachment⁹⁶. Thus, contact with authors and printers is made easy with emails. Publishers now maintain EDI and bar-coding mechanism, where computer can exchange burned documents in a standard format. This helps to transmit documents to shippers, transporters, customers etc. with speedy economy as against sending bulk of papers through corner and postal agencies⁹⁷. Travel guide can easily be produced and updated with ease. The barcode system assists to identify a significant product distinct from others with all the relevant information about it readily available on the computer. In fact, the trend in book publishing has given birth to audio books, e-books, e-publishing, print on demand⁹⁸.

Technological innovations had enabled those who are not skilled in information technology or computer to emerge as printers, especially in areas of desktop publishing where a single person carries out publishing processes alone right in convenience⁹⁹. With the technological innovations for publishing, the face of publishing industry is set to change. Future businesses will now be determined with the use of digital technologies. Print products and their producers have real completion from alternative media for the first time since the invention of movable type. There is this trend where publishers and print buyers are now investing in new

methods either to sell products or communicate with end users¹⁰⁰. With the new technologies, there are better, faster networks and new devices like e-readers, smart phones and tablets. Where publishers can provide contents for the devices and advertisers are exploring how to communicate with prospects and customers. From all indication, the world is becoming connected and print needs to re-access its position in the market as new alternatives are being presented with much marketing support¹⁰⁰. Of a truth, the traditional publishing industries has new competitors. Presently, technological innovations allow easy posting of few characters to a high-quality video that has made everybody a publisher or reporter¹⁰⁰.

In fact, the conventional distribution and retail channels had equally taken a new dimension. With downloads, the supplier is instantly paid for content via a credit card or pay pal-type transaction, and there is no investment in physical stock or distribution¹⁰¹. This is an attractive model. On the other hand, technologies for exploring the Internet and receiving content are developing rapidly. New e-reader devices are attracting a great deal of interest as alternatives to traditional print products. Though the text handling technology in print has developed over hundreds of years to provide many interesting type styles and design tools, to create appealing and easy-to-read pages and document, the present situation has brought about a unique link and code that allows a onetime download of the title electronically. Google is becoming a significant player in publishing digital content. For instance, Google books has over 12 million books available for searching. Through its well-publicized negotiation with publishers and authors, Google can sell the full text of books, which probably are out of print. In areas of social media, Publishers, retailers, and book vendors are tapping into the technology where information is widely shared. This has become useful to publishers, advertisers, who are working to provide tailored content to appeal to individuals. Electronic publishing facilitates easy revision of the text for more conventional monographs,

where readers can communicate their corrections, additions and suggestions. Thereby makes editorial processes lots easier¹⁰².

Electronic books are defined as digital object with textual and/or other content, which arises as a result of integrating the familiar concept of a book with features that can be provided in an electronic environment. E-books typically have in-use features such as search and cross reference function, hypertext links, bookmarks, annotations, highlights, multimedia objects and interactive tools¹⁰³. The invention of e-books is an opportunity for the publishing industry to revitalize. The e- book market is still in its growth state and thus can revive the publishing market. The fact that a publisher can never be out-of-print and the publishing industry's traditional supply chain will be faster and shorter are other advantages of e-books. This results in lower costs, which in turn results in higher profits for publishers and authors, which can lead to lower prices for readers. On the contrary, digitalization goes together with piracy. As in the music and film industry, publishers of e-books risk that their books are copied and illegally spread on the Internet. E-books can be protected from piracy by both encryption and compression. For instance, by a Digital Object Identifier (DOI): "an initiative of the publishing community for protecting its assets in the Digital environment"¹⁰³.

The introduction of online newspapers is another change in the publishing industry. Most of the newspapers, local and national, offer nowadays both a traditional printed and an online newspaper¹⁰⁴. Online newspapers have offered extensive content-sharing characteristics. The print edition is often the primary source for the online edition. "The fact that similar or identical information is published in two formats fostered the industry's concern about the negative impact of offering free content online on the print edition's subscription base". This effect is called the cannibalization effect. Publishers are afraid that offering free content online may cause a decrease the demand of the print edition because of the subscription base.

Therefore, many online news sites initially charged a subscription fee for online news access but most failed. The advertising model followed, but only with limited success. Introducing online pricing causes a decrease in demand of online newspapers. People seem to prefer reading a printed newspaper over an online newspaper if an online price is charged. Not setting an online price when the advertising market is favourable, the welfare benefits of the online newspaper outweigh the costs¹⁰⁵.

The wide availability of computer-driven desktop-publishing technology to small presses and individuals gave impetus to the production of a large variety of self-published books¹⁰⁵. By the 1970s, the advent of new technologies for the transmission, storage and distribution of data which were once the prerogative of book publishing had become a problem for the publishing industry; digitalized television screens and databases became symbols of the challenges to editors and publishers. Through the internet, authors and publishers share information as members of the global village. The convergence of computers and television has created a new form of media, and altering the way our society learn, bringing “edutainment” or “infotainment” to majority of members of the informed society¹⁰⁵.

Technology also has led to the development of electronic book which combines the storage, search capabilities and adaptability of a computer with the stimulated page format of a traditional book; early versions appeared in the late 1990s¹⁰⁵. Today, thousands of books are being digitised, to be read on-line, can be downloaded, can be printed out by the reader or printed on demand by the publisher, thus assuring that their electronic versions need never go out of print.

The book publishing industry has benefited from this development in Technology. Book that will formerly take years to produce can now be produced in a few months. Today’s new breed editors and designers now edit and illustrate on computers. Production quality is much

better. The editor or the publication designer who is not computer literate can no longer flourish in the creative market of the new world. Electronic publishing has developed, books are available on CD-ROM and a lot of titles are available online. Hard disks of Computers are loaded with software like Core Draw, Page maker, Print shop, and Freehand¹⁰⁵. Any publishing company that is investing in Technology means all of the following:

1. Investing in people.
2. Investing in Information Technology hardware and software.
3. Investing in systems.
4. Investing in processes.

Technology includes electronic networks embodying complex hardware and software, linked by a vast array of technical protocols¹⁰⁶. Technology is embedded in networks and services that affect local and international, accumulation and flow of public and private knowledge. Technology innovations include the traditional and modern technologies of disseminating information. The traditional technologies products are the prints on pages, radio, television, films etc. while the modern technologies include e-mails, voice mails, FAX, internet, electronic, bulletin boards and cellular telephones etc. The wedding of computers and telephones has brought about e-mail and Internet, which have served as revolutionizing communication and information access in the developing world. Nowadays book publishers are faced with the rapid growth of an alternative system of book promotion and distribution¹⁰⁶.

The Internet has the potential to dominate the media industry to become the main mode of delivery for the printed item and to push traditional book production and distribution into a secondary position. Such a revolution in distribution and market-building would have a profound effect on the structure of the book trade. Publishers are reticent about stating a fixed policy on Net publishing while the Internet is changing so rapidly, so it is difficult to find a consensus of opinion in the publishing industry. Also, any attempt to give an overview of the

activities of publishers soon becomes a historical snapshot as more and more publishers enter the Internet marketplace¹⁰⁷.

The advantages of the internet in publishing are:

1. It is ten times faster and cheaper to communicate by e-mail.
2. The staff can also source and find much useful information.
3. Many organizations and publishers are using the internet for promotion and dissemination of information about themselves.
4. It is used by millions of people and therefore the publishers can reach a worldwide market if its site is visited because it is a very formidable marketing tool.
5. If the publishers can advertise by publishing catalogues and contents pages of books, accept orders or even let people download, at a fee, its publications from the internet.
6. This will be an extra source of income because the internet sale would be in addition to the printed copies.
7. Also, there are on-line bookshops, which can market ones' books and abstracting companies that can promote publications

What-You-See-Is-What-You-Get (WYSIWYG) Concept

The interfacing of Word Processor and microcomputers has provided a fantastic and user-friendly of typesetting material for printing. This is known as Desktop publishing (DTP) which is the creation of documents using page layout skills on personal computer. Desktop publishing software can generate layouts and produce typographic quality texts and images¹⁰⁸.

These systems which essentially allow users, such as editors, graphic designers and

typesetters, to set type themselves, make up pages (including graphics) and print the output on laser printers. DTP systems usually give a What-You-See-Is-What-You-Get (WYSIWYG) representation on the screen. While the laser printer output may be used as camera-ready original copy from which printing plates are made¹⁰⁸.

When used skilfully, desktop publishing allows the user to produce a wide variety of materials, from flyers to magazines and comprehensive dummies of books, without the expense of commercial printing. The same DTP skills and software used for common paper and book publishing are sometimes used to create graphics for point-of-sale displays, promotional items, trade show exhibits, retail package designs and outdoor signs. The job descriptions that include 'DTP' such as DTP artist, often require skills using software for producing e-books¹⁰⁸.

WYSIWYG allows publication's designers to develop trial layouts. It is especially useful for highly illustrated information or children's books on which editors' edits/rewrite the text to fit illustrations in close association with graphic artists. Accurate control of the page layout in dummy form is achieved before fund is committed to the final typesetting. This system is also used in the preparation of promotional materials for the Marketing/Sales department¹⁰⁸. For a more direct book work, a typesetter's automatic pagination system is usually faster and quite adequate. There are other advantages. The typical advantages of DTP are:

1. Editing and change of the text, with automatic re-arrangement of the original text to accommodate the new material;
2. Automatic justification of right- or left-hand margins with character spacing affected over the complete length;
3. Automatic breaking of long words;

4. Arrangement of text so that long words are not spelt at the end of a page and the next page starts with the second half of the word. This is termed protecting widows and orphans;
5. Searching for a word within the documents;
6. Automatic page numbering (pagination);
7. Typing in columns, with updating either across or by snake movement;
8. Protection of confidential area of text;
9. Spelling checks within the selected vocabulary;
10. Changing of table columns without re-typing; and
11. Automatic calculation of mathematic tabulations during updating

2.1.6 Threats to the Future of Conventional Textbooks

Technological development in several fields in creating new challenges to copyright all around the globe, in particular an authorised reproduction for the market place. Paradoxically, the benefits of technology are gradually posing a threat to the future of conventional textbooks. In BBC World (cable television) news broadcast on June 9, 2019, it was reported that the governor of the State of California in the United State of America planned to replace textbooks on science and technology with digital textbooks on the internet with worry about the average of \$100 spent on the production of conventional textbook¹⁰⁹. Digital textbook is a remote luxury in much larger parts of most of the developing countries where electric energy is a tale told of large urban areas even where the energy may not be available for hours, days and even months. Also, the costs of the relevant electronic equipment for accessing the

internet in most of the developing countries especially in Nigerian rural areas are so much prohibitive¹⁰⁹.

With the very rapid advancement of technology, the problem of copyright gets increasingly complex daily, with example relevant issues like photocopying, electronic books, radio and satellite broadcasting¹⁰⁹. To tackle these rapidly emerging problems, the World Intellectual Property Organization (WIO), with headquarters in Geneva, has drawn up diverse treaties subscribed to by nations of the world, to protect the various activities and products of the intellect¹⁰⁹.

The information and electronic revolution have been making it less expensive for end-users to make illegal copies of copyrighted materials through photocopiers and scanners, and through the sharing and networking of data downloaded from websites and CD-ROM^{33,110}. Moreover, and unfortunately for publishers and owners of copyright, the revolution has also been transforming the problems and controversies surrounding the application of existing copyright laws within and across national boundaries. Technological development in several fields, including in origination, pre-press, and printing processes in book production, is indeed creating new challenges to copyright all around the world, in particular, unauthorized reproduction in the market place in Nigeria. Moreover, and unfortunately for owners of copyright, the revolution has been transforming the challenges surrounding the application of existing copyright laws within and across national boundaries. For these problems and challenges, advised has been given to Nigeria publishers to note that the technological revolution also provides opportunities for legal owners and potential pirates. The challenges of piracy are enormous^{48, 110}.

This fast development of electronic publishing has its negative sides. With the sophistication of the activities of pirates, books can be offered, copied or shared on the internet without the

permission of the copyright owner. Searching for infringers on the internet is like looking for a needle in a haystack. Even when the infringer is identified, he/she could be so far away on another continent that prosecution will be like shooting the man in the moon.

2.1.7 The Changing Nature of Publishing

In the last decade, technology changed the way many readers accessed publications, moving textual works from print to online. Publishing is moving once again, this time in the direction of mobile apps (small applications designed to run on mobile devices, including smartphones and tablets)¹¹⁴. In the past year, the number of those who read e-books increased from 16% to 23%.” Likewise, e-book reader or tablet ownership has increased from 3% in 2010 to 33% in late 2012. When Apple Newsstand launched in October 2011, many magazine and newspaper publishers who offered their content through Newsstand, saw increases in their readerships. Both changes, first to the web, and now to mobile devices, have each had an impact on the culture of reading and writing, including scholarly works. Another interesting development in publishing is the rise of self-published monographs¹¹⁴.

With hopes of finding new streams of revenue, traditional publishers are working more readily with authors who want to self-publish their work, often so that the author maintains more control over the publishing process (arguably at the expense of the “prestige” lost by not having work accepted by the traditional publishers)¹¹⁵. For example, the respected trade publishers such as Simon & Schuster has a self-publishing service called Archway Publishing which includes eBook formatting (with the EPUB format) and includes the option for children’s book authors to publish content for mobile apps. Self-publishing on the web and other web-publishing mostly leaves out critical editorial revising and copyediting. For the billions of publications soon to be e-published, new software and vetting websites will be required to edit and polish publications for academic writers and to evaluate these new e-

publications for quality for academic readers”^{12, 115}. Although it may be some time before self-publishing affects the work of academics, it points to destabilization of a process that was previously controlled by publishers. The publishing industry was permanently changed when the earliest web browsers brought text, hypertext, and images to unlimited numbers of readers and authors began to publish their work online¹¹⁵.

Web 2.0 enabled readers to become commenters and reviewers, and created platforms for online authorship. More recently, mobile technology has again transformed publishing as e-books and apps have made mobile reading easy and convenient. These changes, along with ability of authors to circumvent traditional barriers to publishing and disseminating their work, will inevitably affect the way academic work is read and published¹¹⁵.

2.1.8 Future Directions for Digital Publications

In addition to ways of creating mobile versions of online publishing and dissemination platforms, new companies are emerging to make it easier for non-programmers to create “born mobile” content. Tactilize describes itself as “the world’s first iPad self-publishing app and content network.” A TechCrunch article recognizes that creating content for mobile apps generally requires more technological expertise than writing for the web, and explains how “Tactilize wants to make it significantly easier for writers, photographers, videographers and anybody else who produces interesting content to feature and monetize works on the iPad”¹¹⁶. In its model, users create a content network consisting of “cards, each composed of text, video, photos that are created either using a web-based application or by using the Tactilize app. The goal is to create a simple mobile publishing tool that takes advantage of multimedia capabilities of tablets and allows users to create content to share, sell, or embed in websites”^{17,116}.

Micropublishing is a niche activity in the traditional print publishing world that used to be limited by the constraints of paper. For example, print zine and chapbooks, despite their limited but devoted readership, earned far too little per copy to make them profitable for large publishing companies¹¹⁶. Distributing (by mail) small numbers of zines was time-consuming and expensive. The rise of mobile devices, and tablets in particular, are revitalizing this genre. In a 2019 article in Pando Daily, Hamish McKenzie describes a new app, The Periodical Co that enables “people to simultaneously push content to a website, a mobile website, and Apple’s Newsstand without any coding skills required”. This allows authors of small serial publications the ability to create and distribute mobile content. This may seem a far cry from activities of respected, established academic publishers, but it is possible that more widespread self-publishing, self-dissemination, and review and comment via social media may disrupt business as usual in academic publishing¹¹⁷.

Although web design has established rules for navigation and usability, similar rules and best practices for content created expressly for mobile devices continues to evolve. In a November 2020 blog post, designer Craig Mod published a “Subcompact Manifesto” describing the qualities of subcompact publishing “tools and editorial ethos^{13, 117}.” The manifesto attests to the fact that more mobile apps are being created for serial publications. Mod outlines essential characteristics of subcompact publishing tools: small issue size, small file sizes, digital-aware subscription prices, fluid publishing schedule, scrolling, clear navigation, HTML (ish) based, touching the open web. Although most of these characteristics relate to an app and its contents’ design, and in this way are specific to born-mobile serials, some characteristics align those in the born-print world^{11, 117}.

As readers and writers spend more time with works derived from subcompact publishing, it is likely the characteristics they value in serial publications may change, or at minimum,

become more flexible. It is also possible that readers of both app-based serials and print serials may start blending the criteria they use to evaluate each medium. Five key characteristics of micro-published serials: price, publishing schedule, comments and feedback, currency, and ease of access align in interesting ways academics determine the “value” of a publication¹¹⁸. Moreover, as expectations around the experience of reading, the ability to provide and view feedback, and how content is made and disseminated change among readers in general, it is important to consider to what extent these changes will affect an academic audience, and ultimately whether the criteria regarding authority and value may change. Initiatives such as the Digital Humanities Now and VIVO, non-traditional publishing platforms with robust systems of comment and feedback, may provide clues^{3, 118}.

For years, digital content created for general readers was generally freely available on the web. However, “the ‘content free-to-all’ era is slowly ending as pay walls cautiously go up”. For a long time, online subscription models were limited to websites of organizations that also offered paid print counterparts, including some popular magazines and newspapers¹¹⁸. Likewise, library vendors have always charged institutional pricing for online content. For many years, free content or content that was subsidized by advertisements was not considered as authoritative by readers than content that came at a price. The question of price and authority is further complicated by the rise of open access publishing. Established academic publishers as well as new ventures are coming up with new pricing models that makes content free for consumers¹¹⁸.

One of the advantages of digital content is that it can be updated continuously. News websites and blogs are updated to reflect and reinforce the notion of a 24 hours’ news cycle. The formerly no cost New York Times website and countless other respected online publishers have gotten readers used to the idea that volumes and issues, and regular, known publication

frequency no longer signal authority and reputation^{33, 118}. In the world of academic publishing, preprint distribution has become widespread, and many scientists would rather disseminate the results of their research rather than way for the relatively time-consuming process of peer review to run its course¹¹⁹.

Similarly, academic and news publishers have opened up their websites to feedback from their readership, and have adopted more dynamic forms of social media, like Twitter, which provides an important “current awareness” service to consumers of academic content. Authors of monographs rely on positive comments and sales rankings on sites like Amazon, or positive reviews on sites like Goodreads.com^{66, 119}. Even library catalogues provide patrons the option to comment on books, thus giving authors and a community of readers yet another opportunity for feedback. Whereas in the traditional process of peer review, authors receive feedback from a limited number of peers asked to review their work, online publishing and social media enables the potential for feedback from peers, but also students, amateurs, and the general public. Whether this level of feedback turns out to be helpful or whether it blurs the line between quality and popularity remains an open question¹¹⁹. Although many tenets of Mod’s manifesto relate to design and ease of navigation, it also evokes values that continue to be important to authors in general currency, ease of use, common-sense pricing. However, more than anything, what it points to is a sign of growing maturity in the self-publishing app world.

People read using mobile devices more frequently, and it is becoming easier for authors to publish on their own. As a result, best practices are being established and expectations are being formed around self-publishing and mobile reading. For now, mobile reading tends to be informal or social. However, like everyone else, academics are increasingly communicating through social networks and sharing and reading information using mobile devices^{18, 119}. For

many reasons, values associated with mobile authorship and reading are slow to permeate academic culture. However, ultimately, these shifts will have an impact on how all content, even academic content, is published, evaluated and disseminated

2.2 Theoretical Review

2.2.1 Media Ecology Model

Marshal McLuhan propounded the Media Ecology Model (MET) in 1964. He explains the influence of technologies such as radio, telephone, television, etc., on the entire human daily process, by establishing their social impact on the society. In essence, he felt societies are highly dependent on mediated technology and a society's social order and business development are based on its ability to key into that technology. This assertion can be clearly identified in the Nigerian Book Publishing operations. This is evident in the development of internet as it changes the environment of Book Publishing as a major aspect of interactions amongst the Publishers' publics¹²⁰. The MET was established on three fundamental assumptions:

1. Media infuse every act and action in society
2. Media fix our perceptions of the society and organizes our experiences
3. Media ties the world together

When applied to Book publishing operations in Nigeria, the assumptions are as follows:

1. Publishers and authors infuse every act and actions in the society in the writing and publishing
2. Publishers fix our perceptions and organize our experiences
3. The book publishing industry is a vital engine that drives the development of any

society.

Book is a medium of mass communication which enhances effective utilization of other media. It is an index for global development, the grandmother of technology^{5, 120}. Books tie the world together. Media Ecology theory when applied to Book Publishing operations centers on the principles that society cannot escape the influence of technology and that technology will remain central in all aspects of today's publishing operation¹²⁰.

2.2.2 Mediamorphosis Theory of Mass Communication

Mediamorphosis is a unified way of thinking about the technology evolution of all aspects of communication media¹²¹. Metamorphosis principles can be derived from the concept of co-evolution, convergence, and complexity of computers. New media forms evolve and develop overtime, and to varying degrees, the development of other existing one such as Book Publishing enhance its operations. The essence of mediamorphosis is the idea that the publishing are complex adaptive systems. In other words, publishing as a media aspect, respond to external pressures with a spontaneous process of self-reorganization for effective communication^{13, 81, 121}.

The theory is appropriate for this work because, it explains how the technological development, new media, and their components have affected the operations of the book publishing industry in Nigeria. The provision of adequate internet facilities has increased internet confidence which has led to abundant technological innovation influence on book publishing operations¹²¹.

2.2.3 Technology Acceptance Model

The Technology Acceptance Model (TAM) is one of the most widely used models to explain user acceptance behaviour¹²². This model is grounded in social psychology theory in general

and the Theory of Reasoned Action (TRA) in particular. TRA asserts that beliefs influence attitudes, which lead to intentions and therefore generate behaviour. The original TAM was introduced¹²² as follows: perceived usefulness (PU), perceived ease of use (PEOU), attitude, and behavioural intention to use. Among the constructs, PU and PEOU form an end-user's beliefs on a technology and therefore predict his or her attitude toward the technology, which in turn predicts its acceptance. Numerous experiments to validate TAM by using PEOU and PU as two independent variables and system usage as the dependent variable were constructed and it revealed that PU was significantly correlated with both self-reported current usage and self-predicted future usage¹²². PEOU was also significantly correlated with current usage and future usage. Overall, PU had a significantly greater correlation with system usage than did PEOU. Further regression analysis suggested that PEOU might be an antecedent of PU rather than a direct determinant of system usage. That is, PEOU affects technology acceptance (TA) indirectly through PU.

In the last decade, TAM has received considerable attention and empirical support^{57, 122}. It is estimated that there were about 100 studies, published in journals, proceedings, or technical reports, related to TAM between 1989 and 2001. In these studies, TAM was extensively tested using different sample sizes and user groups within or across organizations, analysed with different statistical tools, and compared with competing models. It was applied to many different end-user technologies such as email^{21, 122}, word processors^{23, 122}, groupware¹²³, spreadsheets^{13, 123}, and World Wide Web¹²⁴. Some studies also extended TAM by including additional predictors such as gender, culture, experience, and self-efficacy. Overall, researchers tend to suggest that TAM is valid, parsimonious, and robust^{12, 124}. Validated scales for PEOU and PU was developed and found six highly reliable items for each construct with a Cronbach's alpha of .98 for PU and .94 for PEOU respectively^{122, 124}. In succeeding studies, the measurement items for these constructs varied from researcher to

researcher^{122, 124}. As a result, the cumulative number of items for measuring PU has increased from the original six to currently about 50, and that for PEOU has increased from six to 38. The theory assumes that when users perceive that a type of technology is useful and also easy to use, they will be willing to use it¹²⁴.

This study will be handled on the assumption of the theory which state that when users perceive that a type of technology is useful, they will be willing to use it. Thus, the relevance of the model lies in the model's quest to explain why an innovation, which influence the publishing world would be accepted or not by its potential users

2.2.4 Technological Determinism Theory

This theory, coined by American Sociologist Thorstein Veblen (1857-1929) presumes that a modern society' technology, drives the development of its social structure and cultural values. The first major elaboration of technological determinism came from the German philosopher and economist Karl Marx, whose theoretical framework was based upon the idea that change in technology and productive technology are the primary influence on the organization of social relations, and that social relations and cultural practices ultimately revolve around the technological and economic base of a society^{11, 125}.

According to technological determinists, particular technical developments, communication technologies or media, or most broadly, technology in general are the prime antecedent causes of change in society, and technology is seen as the fundamental condition underlying the pattern of social organization^{12, 125}.

Technological determinism theory is usually based on the following assumptions:

1. Communication technology is basic to society.
2. Technology drives change in media industries.

3. Each technology is tilted towards particular communication forms, contents and uses.
4. The sequence of invention and application of technology influence social change.
5. Communication revolutions engender social revolutions.
6. New media undermine old bases of power.

The book as a mass communication medium plays the following roles in human society¹²⁵:

1. Patterns the world for the individual members of the society.
2. Defines the authors' own position in relation to the other members of the society.
3. Helps the individual adapt successfully to his/her environment.

The assumptions of Technological Determinism theory when applied to book publishing operations therefore are as follows:

1. Book publishing as mass communication is basic to any modern society. This is because the development of any society is organically linked with the virility of its book publishing industry¹²⁵.
2. Technology drives change in the publishing industry. The ICT revolution continues to transform the different publishing processes, from manuscript acquisition, through editing, production, marketing, distribution and financial accounting for economics of book publishing.
3. Each technology is titled towards specific book publishing forms, content and uses. Book publishing is concerned with the production and distribution of books. There are new technologies for acquisition of a manuscript; its editing, graphics, pre-press,

production, its distribution to bookseller, and the book purchase.

4. Communication is a very active agent in the changes that are taking place in the world. The global village of McLuhan has been achieved and surpassed even beyond the imagination of the Canadian^{91, 125}. The worldwide web, the information superhighway and other computer marvels of today has brought operational and social changes in the publishing industry. The application of ICT has given book publishing operators the opportunity to participate in the expansion and acquisition of knowledge for better understanding of the book world and its evolution.
5. ICT and the application of new media in book publishing operation has created a transformation from the ancient to the modern, and facilitating a transformation from analogue to digit process.

2.3 Empirical Review

2.3.1 Implications of Technological Innovation in the Publishing Industry

The most important contributions in the literature are implications of technological innovation in the publishing industry, at the micro and macroeconomic level, viewing the organization's ability to generate new ideas in support of increasing production, employment and environmental protection, starting from the concepts of innovation, innovation process and, respectively, from the innovation typology analysis^{114, 126}. Growing interest worldwide to boost innovation in business sector activities, especially the technology, is intended to maintain or increase national economic competitiveness, inclusively as an effect of awareness concerning the effects resulting from economic activity on consumption of resources and environment, which requires design of new patterns of production and consumption. Technological facilities used for book processes by publishers were: scanners, computers, internet, digital cameras, fax machines, mobile phones, telephones (lines), telex, monochrome,

photocopiers, blackberry, www, and internet^{77, 126}. Technological knowledge and skills are now seen as key resources and crucial tools for development of any society which the publishing industry has a greater role to play. These facilities are used for editing, communicating, storage, production and distribution of products. The media facilities remove physical production and distribution costs, together with the time involved aside being used to increase convenience for individuals. Many users now have browsers that restrict pop ups and spam filters, which may also divert files and messages¹²⁶.

Technology has had and still has a dramatic effect on the publishing industry. Technologies currently shaping the publishing industry include: online newspapers, printing on demand and e- books. Digital technology is important for several reasons^{42, 126}. First of all, digital technology has no boundaries in geography and time. Books, magazines and newspapers can be published, marketed, bought and read anytime and anywhere. Second, the power that came from physical distribution has disappeared. Retailers or salespeople cannot influence buying and selling behaviour as they did before because traditional printing is no longer the only way to have content published. Third, distribution of electronic copies of books is free and therefore marginal costs of producing an additional book or journal are zero. The fixed costs, however, will increase because making digital publishing possible high investments in the installation of a network should be made. Furthermore, unique content acquires more importance^{51, 126}. Aspects such as the speed of digital distribution and exclusive access are more valuable to customers. Finally, the next generation, who are educated on computer, will use the new technologies more often. The rapid and disruptive transformations in the trade and digital publishing world. The study discussed how these developments have already intersected with the work of academics and considers how these changes might continue to transform the dissemination of academic research in the future. The study concluded that over time, publishing technologies have not only influenced how people read, but also how

knowledge is evaluated and authority is established. Social and mobile technologies represent relatively recent developments that have transformed the trade publishing world, but the extent to which they have affected academic publishing remains an open question¹²⁶.

2.3.2 Technology Use in Production and Marketing of Book by Publishing Firms

The business environment is constantly changing and evolving. Businesses themselves change overtime and as they grow and develop, the information needs and the way business activities are carried out will change. At the same time the information and communication technology systems needed to support growth and development will also need to change¹²⁷. It is essential, therefore, to review those ICT use so as to continue to align business operations with changing market needs, particularly in a business environment when even small companies face the impacts of globalization with overseas competition, using worldwide supply chains, expanding their own markets locally and internationally and engaging in e-business^{41, 127}. So, dealing with exchange require a considerable amount of work, different skills and resources if the processes are to be efficiently and effectively managed. With practice, individuals become very proficient at buying and selling to meet their household needs. However, organizations are more professional in dealing with exchange processes. With the world becoming a global village, business is also becoming a lot easier. Millions of prospective customers could be reached within minutes and at the same time, through the World Wide Web, at almost no significant price. This is so because with e-commerce, the trade of books transcends geographical boundaries. Access to the world market is at uniform rate. The implication of this, on Indigenous publishers is the fact that huge capital (human and material) needed to set up a viable book business is not needed in e-commerce. The basic things needed are: a computer connected to the internet, the company's website, access to regular electricity and perhaps a telephone¹²⁷. It is unfortunate that most publishers in Africa

are not aware of these great opportunities and as such, are lost out of this type of business that is fast changing the way business is done worldwide.

Technology use in book marketing by emerging indigenous Publishing firms and booksellers in Ibadan Metropolis was examined with relevant literature on Book Publishing: an overview and technology use in book marketing reviewed^{118, 127}. The descriptive survey research which includes the causal comparative (Ex-post-Facto) method of research design was adopted for the study. The study population consisted of sixty (60) staff (CEOs and the marketing staff of the seven Indigenous publishing firms and booksellers in Ibadan metropolis). Data collected, were analysed using simple percentages. The study provided answers to six research questions posed. Findings showed that digital printing, Internet and Computers among others were the major ICTs available to the indigenous publishers and booksellers for book marketing^{118, 127}. Findings also showed that Telephone/GSM, Computers, E-Mail, etcetera were the major types of Information Technology indigenous publishers and booksellers can access. Findings further showed that indigenous publishers and booksellers apply the use of ICT in their daily activities. More so, findings showed that ICTs are beneficial in carrying out duties as majority agreed that it is faster than manual. Findings also revealed that ICTs have favourable impact on publishing and book marketing as respondents agreed that it is a better ways of marketing books. Findings revealed that high cost, poor power supply, piracy, etc. were the challenges of using ICT by indigenous publishers in book marketing. The study recommended the emerging indigenous publishing houses and booksellers in Ibadan metropolis need to procure modern and adequate information and communication technologies and are also encouraged to create websites of their own and place adverts of their publications on the websites and other similar websites like Barnes and Noble, Amazons.com that sell books on the Internet¹²⁷.

2.3.3 Correlation between Technology and Book Production in Publishing Industry

The last two decades had witnessed the global interaction and application of ICT facilities in the provision of information service delivery^{119, 128}. ICT is a term used to describe the items or equipment and computer programs that allow users to access, retrieve, store, organize, manipulate and present information of different kinds and for different purposes by electronic means¹¹⁹. In effect, it embraces all the technologies that enable the handling of information and facilitate different forms of communication between man and electronic systems such as phones, computers, networks, radios, satellite systems among others. Using ICT facilities in book production, has great impact on various processes of publishing. With Internet, printing-on-demand and e-book are the main drivers of change from the way books are published, distributed, sold and read. The book industry has benefited from the development of ICT in great measure. Book that will formerly take years to produce can now be produced in a few months^{19, 128}. This has brought about electronic publishing, books that are available on CD-ROM and lots of titles are available online. Today, with ICT, physical distance is no longer a barrier. Disseminating information has become a lot easier with the use of ICT facilities. Other benefits include: enhanced performance (speed, skills and quality), improvement in communication, improvement in picture resolution and general graphics, reduced cost of production, better page layout, good image, high rating, and realization of corporate goals^{12, 128}. Book publishing refers to the processes that is required to turn a manuscript into a final printed product or e-book. The processes include editing, design, formatting, printing and e-book conversion. The primary purpose of books is to inform and educate the reading public through printed media. It also helps in the preservation and dissemination of knowledge in every literate society. In other words, publishing basically involves the activity of selection, preparation and marketing of information resources¹²⁸.

The correlation between technology and book production in publishing industry was investigated in Nigeria^{85, 128}. Two forms of relationships were examined such as relationship between the application of communication facilities and book production and relationship between the application of technology facilities and book production in Nigeria. Null hypotheses were formulated thus: “There is no significant relationship between the application of communication facilities and book production in Nigeria and there is no significant relationship between application of technology facilities and book production in Nigeria.” Survey research design was adopted for the study. The subject of the study consisted of all staff of the ten selected publishing industries in Nigeria, but a total of five hundred and forty-six (546) personnel were sampled for the study using purposive sampling technique. It was discovered that, there was a significant relationship between the applications of communication and technology facilities in book production in Nigeria. The findings revealed that, the publishers had accepted and adopted the use of communication and technology facilities in Nigeria publishing industry, and had improved quality of production and increased productivity of books¹²⁸.

2.3.4 Impact of Technological Change on the Consumer Magazine Publishing Industry

Throughout the 1990s and the early years of the twenty-first century, consumer magazines have figured as one of the most dynamic and innovative sectors of the economy¹²⁹. Between 1994 and 2003, for example, the number of consumer magazine titles available on the market grew from 2,112 to 3,229^{91, 129}. Consumers in today are thus provided with an unprecedented range of magazine titles and formats spanning a wide array of consumer interests. This proliferation of new magazine titles has been underpinned by technological changes generated as part of the digital revolution. The impact of these technologies, notably desk-top publishing (DTP) and electronic file transfer, in stimulating product innovation was

successfully predicted by the cultural industries perspective. In this approach, growth in the number of new titles was viewed as an aspect of global concentration within the media industry as a whole, of which magazines were envisaged to play a subsidiary role. Product innovation, primarily in terms of product proliferation, was seen to provide a strategic counterpart to the traditional scale advantages that had operated within the industry since the late nineteenth century, enabling the leading national magazine publishers to extend their dominance into the international sphere^{2, 129}.

The impact of technological change on the UK consumer magazine industry was presented through the results of research undertaken between 2012 and 2014¹²⁹. The findings highlight patterns of innovation, both in the range of products (most notably monthly magazine titles) and the structure of organisations and work practices, which have tended to elude much of the contemporary debate within the “cultural industries” approach adopted in the media studies discipline. The study made use of insights from the innovation literature to highlight the impact of technological discontinuities on the capabilities of both incumbent firms and new entrants. It also highlights the important and growing role that is being played in innovation-led industries through the adoption of organisational practices that find their origins in the traditions of project-based firms¹²⁹.

2.3.5 Implications of Digitization for Book Publishing Sector

Traditionally, the publishing industry has played a key role in the dissemination of knowledge and for centuries was a forerunner of what today would be described as a knowledge-based business^{81, 130}. The publishing industry emerged on the basis of one of the greatest technological advances of all time, the invention of moveable type, and since the earliest days has been highly dependent upon technological change. The advent of digital technology has potentially limitless implications for publishing both in hard copy and

electronic formats^{17, 130}. Combined with advances in electronic commerce, it offers the prospect of new value propositions and business models for those who are able to take advantage of developments in digital technology. This includes implications for business processes and relationships and potential disintermediation of the traditional linear progression from the creator of content (the author) through a series of intermediaries including: printers, publishers, distributors and booksellers and the delivery of the finished book in hard copy format to readers¹³⁰.

Digital publishing incorporates several characteristics including an infrastructure that gives multiple options with digital content available in various formats and viewing modes according to customer requirements and basic editing processing and updating of information on the server, leading to reductions in processing time and the fast, efficient transmission of content, with subsequent economic benefits^{10, 130}. In a wider business context, the advent of digital technologies for book publishing has brought the promise of new markets, products and services and potentially an end to perennial problems such as those of book returns and the rigid impositions of print runs. It has also raised the spectre of disappearing entry barriers to traditional markets, the disintermediation of long-established value chains and relentless conglomeration and competition. This said, even the latest digital tools and applications are at best enabling mechanisms whose adoption must relate to the overall business strategy and purpose of the organization¹³⁰.

Recognizing the dynamic nature of the publishing industry in Australia with the rapid development of information and communication technologies, several critical research questions in the publishing industry in Australia were asked as follows^{126, 130}: What are the major trends emerging within the publishing industry in Australia? What implications do these trends have for business models? What technologies and applications offer the greatest

potential for supporting value creation activities and business model development in the digital era? A comprehensive review of the literature on business models was conducted, in particular, in relation to the publishing industry^{126, 130}. The current status of the technology used in the publishing industry was explored, and the overall profile of the Australian publishing industry was established with the use of a document analysis method based on secondary data available which led to the development of an online questionnaire for surveying the book publishers in Australia, and results in the conduct of 14 follow-up case studies, the latter forming the basis for the current paper. The findings of the study were global trends towards consolidation and increasing competition are replicated in Australia, and that business models are responding, for example, with the emergence of hybrid models, embodying traditional elements and those consequent on the advent of digitization. It was also clear that the internet and related network technologies, along with content and digital rights management technologies are emerging as key to change, but those strategic decisions are ultimately based on business drivers rather than on emerging technologies^{127, 130}.

2.4. Conceptual Framework

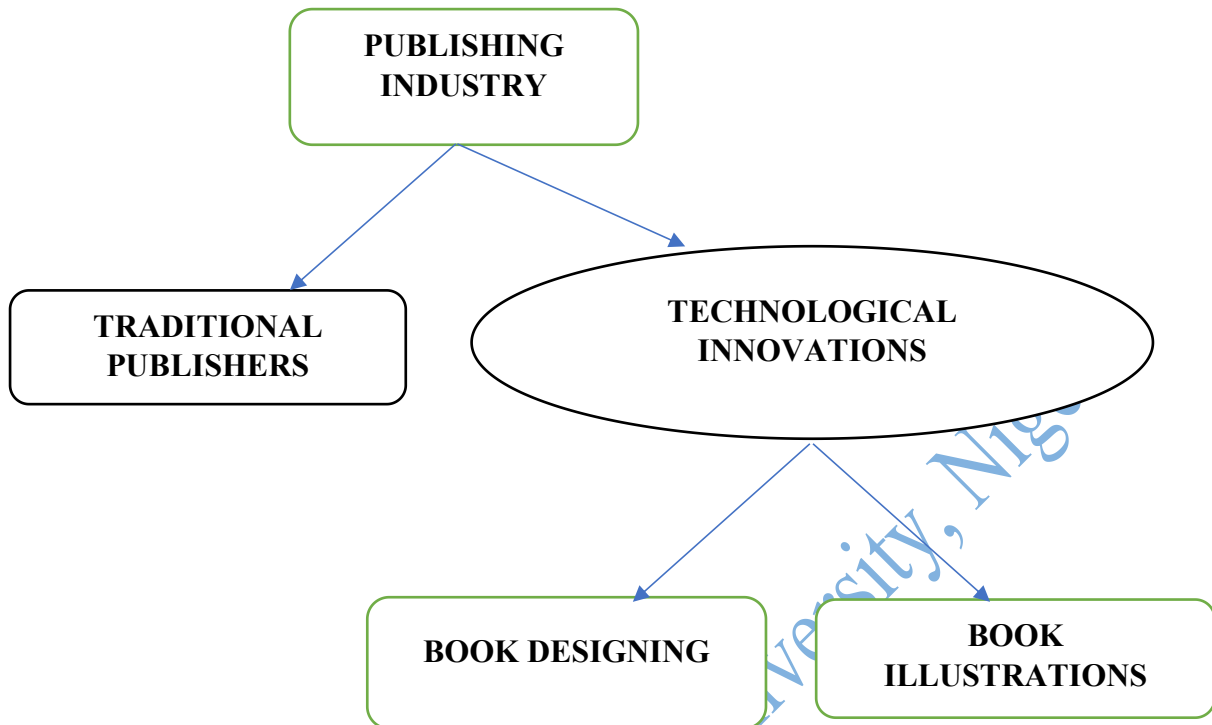


Figure 2.1: Conceptual Framework

2.5 Summary and Gap in Literature

Publishing industry comprises of magazine, book and newspaper industries. Products from the publishing industry have had a great influence on the cultural and socio-political environment; an example is the education system¹³¹. Technology advancement in digitization has led to increasing in popularity of e-books and various online resources. It has led to high levels of competition, which affects consumer spending. It is believed that digitization in online newspapers and e- books has led to dying of the industry. On the contrary, it has opened up new opportunities. With technologies, there exist virtually no boundaries of time or geography. Magazines, books, and newspapers can now be published anytime and anywhere. Technology provides a platform for marketing in which publishing of books in websites has made it easier for students to access information with no limits. It has reduced the burden of carrying hefty books from one location to another^{18, 131}. The Internet has led to saving of time for other activities since physical distribution has disappeared. The distribution

now exists in forms of electronic copies. Distribution of the copies on the Internet is done freely and therefore costs are cut for producing additional books and journals. Saving of costs leads to economic growth. However, fixed costs tend to increase because digital publishing requires investments in the installation of networks which is fast compared to physical distribution and its exclusive access attracts more consumers¹³¹.

In the education sector, the Internet has facilitated a platform in which educational materials can be shared from one person to another^{95, 131}. This development has led to increasing in popularity of distance learning. It has been made flexible to study while doing other tasks like working since attending school is no longer mandatory. There are new platforms where teachers and students can connect within the network. However, a clear assessment of students undertaking online learning is not yet figured out. In the current generation, most students are computer literate and hence are exposed to unique online resources, which increase their knowledge with also access to the Internet from mobile phones and tablets¹³¹. The Internet and mobile technologies have provided a platform for advertising. School admissions and job opportunities are now made available online. Advertising of job opportunities helps students know the available job openings in the market and what is required of them to acquire the jobs. Students can also know the openings for admission in various schools from a wide variety. It offers opportunities for students to enrol in schools in other continents because they can apply via the Internet or use the option of distance learning. This is an indication of enhanced diversification^{13, 131}.

Technologies have eased off if not solved the problem of oversupply in the publishing industry¹³¹. Currently, there are close to 72 million active websites with 5% of the websites being blogged. Links have been introduced to solve the problem. Links create currency for writers and readers to surface and access wonderful stuffs. Google has built a reputation

exchange in that, the more the links one has, the more the importance of Google search. The more weighted links confer their importance to others. It created an ecosystem for writers and readers to a point blog are the fact of life and are created in various ways to make them attractive. Strictly speaking, Google does not make money from the free content they offer. In fact, profits are generated from selling advertising space on their screens. Customers' profiles are being sold to advertisers¹³¹.

Another opportunity created by technology is the invention of e-books, which has been growing rapidly¹³¹. An advantage of e-books is that a publisher can never be out of print and the supply chain in the industry is shorter and faster. It results to lower costs, which result in higher profits for authors and publishers. Readers also access the books at lower prices. In the past, hardcopy books were commonly used in the education sector, for learning and teaching. The invention of e-books has led to the development of education sector in the cost of purchasing books has been minimized¹³². Teachers can now teach via information on the Internet and students can access the information. Technological innovations in publishing, however, goes in hand with piracy. E- books face a risk of being copied and being spread illegally on the Internet, but this is solved by both compression and encryption. The digital object identifier is an initiative of the publishing community for the protection of its assets in the digital world. Other than technology, the increasing demand of e-books is caused by user friendliness, privacy, and cost. Some readers and the change interesting¹³².

Another change in the publishing industry due to technology is the introduction of online newspapers¹³². Globally, all countries are now producing a traditionally printed newspaper and online newspaper. Digitization of newspapers has created a platform where students, philosophers, and even business people can now access news from all over the world. Current trends and emerging issues in different countries are conveyed in the newspapers hence

greater knowledge to all those researching for information. Availability of the information from the media has helped shape students with a passion for being writers, politicians, business people, journalists and other professions¹³³. Exposure to stories about legends and great leaders inspire them. Online newspapers have tried to shut o the traditionally printed newspapers, but it has not been entirely successful. Publishers have been afraid that offering free content on the Internet is going to reduce the sales of the traditionally printed ones. To curb this, they have introduced a subscription fee for access to the online news, which cuts down the demand for online news. The welfare benefits outweigh the cost. Hence, both forms are still on demand in the market. The Internet has brought a new experience to the publishers. In the past, they were stuck to publishing covered books but now there is a variety. It is an exciting experience, which increases the publisher's motivation by doing something out of the norm. It has led to the rise of blogs by writers¹³³.

Technological innovations have made the research process easier. The education sector has developed due to this¹³³. Students can now research information easily with the click of a button. In the past, studying was a struggle when students were limited to study volumes of books when carrying out research. It was time wasting and tedious. Covered books were also limited since schools could not provide every student's desire of books for study. E-books have benefited the education industry since any student can access information anytime and anywhere. There are online resources such as references, research topics, and even catalogues, which are beneficial to students instead of using a traditional, physical library¹³⁴.

The increase in the use of different technological innovations has exposed the publishing industry to working hand in hand with other industries¹³⁴. It uses technicians from the information and technology industry to create networks for them. This has helped in job creation in the industry, making lives better and even contributing to economic growth. It also

promotes teamwork and good working relations to have a good working environment. There exist many publishers in competition with others, which motivates critical thinking and prevents stagnation to remain in the market. Technology has also caused the publishing industry to be flexible in their operations and not stuck to publishing books with covers¹³⁵.

Publishers are expanding their markets to social media such as Facebook and Twitter. They are powerful and massive social media platforms, which reach out to people. Social media is not only limited to the interaction of people, but publishers also get a platform to post interesting contents that would capture the reader's attention. It exposes people to long-form content discoveries. It also exposes them to interesting articles and discoveries in the platforms, which creates a relationship between the writers and the readers. Digital magazines have turned out to be an activity of leisure to some students¹³⁵.

It can also sharpen their skills, talents and hobbies through such exposures. Shifting from the printed books due to technological innovations in publishing has been a challenge but the publishing industry has come up with ways to embrace the shift. It has looked for new distribution platforms, which allows for more streamlined contents instead of relying on traditional marketing infrastructure. It opens up options for free contents for readers and high profits to the publishers. By embracing the digitized publishing, publishers can now find new ways to monetize long-form content. Since digital content is not limited to physical space, it gives publishers a platform to express themselves with no limitation. An article can be transformed into a multi-faceted story due to its ability to expand. Digitalized distribution has raised the expectations of the consumers¹³⁶.

Therefore, the publishers must deliver. Embracing up to date designs helps to retain readers. Embracing applications provide publishers with effective ways to satisfy their readers and increase of digital edition distribution. An example for this is the increasing number of

applications associated with various magazine and newspaper companies. The form of digital content transmitted via applications on mobile devices enhances the interactive experiences of reading. Videos, links and sounds can be embedded in the application alongside the traditional text content¹³⁷.

Similarly, Internet popularity has also led to the creation of apps¹³⁷. The education industry has successfully used apps to connect with students in a more engaging way. Parents and teachers report positive improvements in many categories including academic performance, critical thinking skills, motivation, positive attitude and literacy due to the use of those apps. Students can also access online tutorials, which help them gain more knowledge and a chance to access their abilities themselves¹³⁸. There exist students living with disabilities who faced a challenge in coping with studies in their conditions. Digital contents and applications made it possible for those students to study in a better way without having to move. Some applications tutor them on how to do some things that seemed impossible in the past. It made life easier for those students. Applications allow both publishers and school teachers/instructors to reach a growing number of people using tablets and mobile phones in a more effective way¹³⁸.

Digital publishing has led to self-publishing innovations¹³⁹. It is motivated by the urge of independence, which had not been foreseen for the publishing industry in the past. Self-publishing has offered independent publishers a chance to new and exciting opportunities for distributing digital content. Initially, the process was tedious with the publishing and awaiting acknowledgment and marketing afterward. In addition, digitization has encouraged students with a passion and talent for writing to pursue their dreams¹³⁹. As a result of this, students can find a way to express themselves and turn to activities that will boost their growth. There is a platform for everyone without limitation to display his or her talents to the whole world.

Social media makes it easier and effective. It saves on cost and time. The publishing world was once reserved for large organizations who would afford production infrastructures but now it is expansive, and others can do it independently. Self-publishers can now operate from their homes. Costs of production have been minimized such as volume print runs. Due to increase in self-published books, there has been a 105% increase in drama books and poetry, 80% biographies and general fiction and 30% increase in science books¹³⁹.

Technology has indeed impacted (both positively and negatively) to the development of many industries. It is foreseen that there will be a big disruption in industries in the coming years as the world gets digitalized by the day. It leads to a massive imbalance of supply and demand in the industries. Dreams of many people have come true due to the technology advancement.

Do Not Copy, Lead City University, Nigeria

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Chapter Three

Methodology

This chapter focused on the research design that was employed, the population of the study, sampling technique and sample size, instrument, validity and reliability of the instrument, procedure for data collection and the method that will applied for data analysis.

3.1 Research Design

This study adopted a descriptive survey research design of quantitative type. This design is considered appropriate because it demonstrates how the variables of the study would be observed to generate both primary and secondary data for the study.

3.2 Population of the Study

The population for this study comprised of all staff working at the publishing unit of Evans Brothers Publishers and College Press Ltd, Ibadan, Oyo State. The population was chosen based on their daily interactions in the publishing firm and their role in book design and illustration. The population of the two publishing firm is made up of 400 full time employee. The study focused only on the full time employees.

3.3 Sampling Technique and Sample

The sampling technique that will be adopted for this study is the simple random sampling technique². Random sampling technique was used to ensure that each sample has an equal chances or probability of being chosen. Taro Yamane formula will be adopted for the calculation of the sample size and the formula is expressed as⁴:

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the required sample size, N is the total population, e is the margin of error at 5% confidence level. Therefore, the study sample size with the total population of 400 calculated as:

$$n = \frac{450}{1 + 450(0.05)^2}$$

$$n = \frac{450}{1 + 450(0.0025)}$$

$$n = \frac{450}{1 + 1.125}$$

$$n = \frac{400}{2.125}$$

$$n = 212$$

3.4 Research Instrument

The instrument that was employed to source for primary data for the study is a structured questionnaire. The items in the questionnaire will be drawn from the research questions that were formulated for the study in the chapter one. The questionnaire comprised six sections. The first section describes the general socio-demographic data of the respondents such as name of publishing firm, status, nature of job and years on the job. Section B contains questions about means of book design and illustration at Evans Brothers Publishers and College Press Ltd and is measured using Very Highly Used, Used, Rarely Used and not used; Section C inquires on the various technological innovations used in Evans Brothers Publishers and College Press Ltd using the yes or no response as measuring scale; Section D seeks answers on the level of use of technological innovations in Evans Brothers Publishers and College Press Ltd and is measured using Very Highly Used, Used, Rarely Used and not used; Section E seeks answers on the influence of technological innovations on Book Design

and Illustration in Evans Brothers Publishers and College Press Ltd, while Section F inquire about the challenges faced in using technological innovations in Evans Brothers Publishers and College Press Ltd. Both section E and section F is measured using Strongly Agree, Agree, Disagree and Strongly Disagree.

3.5 Validity of Instrument

The instrument was presented to the researcher's supervisor and other lecturers in the Department of Mass Communication and Media Technology, Lead City University for face validity. The correction (s) that may be suggested was effected after which a clean copy will be analysed for reliability test.

3.6 Reliability of Instrument

After the instrument had been validated, the corrections made, other suggestions in the questionnaire was adjusted and applied after which the instrument was trial-tested. In testing the instrument, the questionnaire was administered to a replica of the proposed study population, and its consistency in yielding the same results will verify its reliability. The questionnaire was subjected to a test using Cronbach alpha 0.70 coefficient. The instrument is said to be reliable if the Cronbach's Alpha reliability coefficient is greater or equal to 0.70 (Reliability \geq 0.70). A Cronbach's Alpha result of 0.912 (see Appendix III) was gotten from the entire questionnaire. This served as the reliability coefficient level of all constructs used in this study to measure the independent and dependent variables. Thirty Two (32) items were subjected to reliability test. All the items were jointly reliable (0.912). Also, means of Book Design and Illustration was tested, five (5) items were subjected to reliability test. All the items were reliable (0.837). Technological innovations used for book design and illustration was also tested, five (5) items were subjected to reliability test in this section. All the items were jointly reliable (0.856). Level of use of technological innovations for book

design and illustration was tested; six (6) items were subjected to reliability test. All the items were reliable (0.871). Influence of technological innovations on book design and illustration, ten (10) items were subjected to reliability test , all the items were reliable at 0.951. Challenges faced in using technological innovations for book design and illustration, six (6) items were subjected to reliability test, items were reliable at 0.877. Therefore, The result suggested that the items that makeup of each indicator used in measuring the variables in the study was highly reliable.

3.7 Procedure for Administration of the Research Instrument

A letter of introduction was collected from the Head of Department, Department of Mass Communication and Media Technology, Faculty of Communication and Information Sciences, Lead City University Ibadan, Oyo State, Nigeria and shown to the Heads of Evans Brothers Publishers and College Press Ltd, Ibadan, Oyo State to request permission for participation of their staffs in this study. The data for the study was obtained from the items of questionnaire that was administered on the selected respondents. The respondents are staff working at the publishing unit of Evans Brothers Publishers and College Press Ltd, Ibadan, Oyo State. The questionnaire was administered to the randomly selected staffs in the publishing firm. The researcher attempted to answer any question that were not clear to the respondents and will ensure that the questionnaires were collected immediately to avoid loss of the instrument.

3.8 Method of Data Analysis

Responses from the completed questionnaire was collated, coded and analysed using descriptive statistics of frequency counts and percentages to analyse the demographic data and of the respondents while simple percentage tables used to answer the research questions raised for the study. All these will be achieved with the aid of SPSS version 23.

Endnotes

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Chapter Four

Results and Discussion of Findings

In this chapter, the data collected from the questionnaires distributed during the study are presented. The data were analyzed using qualitative method. A total of 216 questionnaire were administered to respondents, out of the questionnaire returned; only 212 of it was found valid to be used for analysis in the study. Thus, the analysis of data in this chapter was based on returned valid copies which indicate a response rate of 98.1% from the respondents. Based on the nature of objectives raised for the study; data obtained from the respondents were subjected to descriptive and inferential analysis

4.1 Demographic Data Analysis

Table 4.1: Demographic Data of Respondents (N= 212)

Demographic Variable		Frequency (N)	Percentage (%)
Gender	Male	155	73.1
	Female	57	26.9
	Total	212	100
Age	18–30 years	24	11.3
	31–40 years	138	65.1
	41-50 years	36	17
	51-60 years	11	5.2
	60 and Above	3	1.4
	Total	212	100
Educational Status	OND	12	5.7
	HND	100	47.2
	Bachelor's Degree	90	42.5
	M.Sc/MBA	10	4.6
	Total	212	100

Years of Service	Below 5years	25	11.8
	Between 5-10 years	52	24.5
	Above 10 years	135	63.7
	Total	212	100
Organizational Status	Senior staff	39	18.4
	Junior Staff	173	81.6
	Total	212	100

Source: Fieldwork, 2022

Table 4.1 reveals the demographic data of respondents. It shows that majority of the respondents are male (73.1%) when compared to their female counterparts (26.9%). It is also revealed that 11.3% (24) of the respondents are within the age 18–30, 65.1% (138) of the respondents are within 31–40, 17% (36) are within the age range 41-50 years, 5.2% (11) of the respondents are within 51-60 years of age, while 1.4% (3) of the respondents are 60 years and above. This shows that majority of the respondents are within 31-40 years of age. Furthermore, it is also shown that majority of the respondents, 89.6% (190) are graduates (HND/B.Sc), 5.7% (12) of the respondents completed OND, while 4.6% (10) of the respondents have second degrees (M.Sc/MBA). This implies that many of the respondents are educated to the Polytechnic/university level. Lastly, a major fraction of the respondents, 63.7% (135%) have over 10 years of work experience, 24.5% (62) of the respondents have between 5-10 years of work experience, while 11.8% (25) have above below 5 years of work experience. Finally, majority 81.6% (173) of the respondents are junior staff, while 18.4% (39) of the respondents are senior staff.

4.2 Presentation of Data

4.2.1 Analysis of Research Questions

Research Question One: What are the means of book design and illustration at Evans Publishers and College Press?

Table 4.2: Means of Book Design and Illustration (N=212)

S/N	Items	HU (%)	U (%)	RU (%)	NU (%)	Mean	Std.D	Remarks
1	Graphics Design	65 (30.7)	140 (66)	7 (3.3)	0 (0)	3.27	0.52	Moderate Level
2	Typography	57 (26.9)	141 (66.5)	14 (6.6)	0 (0)	3.20	0.54	Moderate Level
3	Multimedia	0 (0)	16 (7.5)	170 (80.2)	26 (12.3)	1.95	0.47	Low Level
4	Web Publishing	0 (0)	39 (18.4)	143 (67.5)	30 (14.2)	2.04	0.49	Low Level
5	Digital Printing	143 (67.5)	69 (32.5)	8 (13.3)	0 (0)	3.67	0.47	Moderate Level

Weighted Mean = 2.826; S.D = 0.498; Overall Decision = Moderate Level

Source: Fieldwork, 2022

Key: HU= Highly Used (4), U=Used (3), RU= Rarely Used (2) and NU= Never Used (1); Std.D = Standard Deviation

Threshold: Mean value of 0.000-1.499 = Not At All; 1.500-2.499 = Low Level; 2.500-3.499 = Moderate Level; 3.500 to 4.500 = High Level

Data from Table 4.2 shows that 30.7% (65) of the respondents opined that graphics design is highly used as means of book design and illustration, 66% (140) of the respondents opined it is used, 3.3% (7) of the respondent indicated it is rarely used. This implies that majority of the

respondent opined that graphics design is highly used as means of book design and illustration. Further, 26.9% (57) of the respondents indicated that typography is highly used as means of book design and illustration, 66.5% (141) of the respondents opined that it typography is used, while 6.6% (14) of the respondents opined it is rarely used. None of the respondents indicated that typography is never used. Additionally, 7.5% (16) respondents opined that multimedia is also used as means of book design and illustration, 80.3% (170) indicated that it is rarely used, 12.3% (26) opined that multimedia is never used, while none of the respondent opined that multimedia is highly used.

Similarly, 18.4% (39) of the respondents opined that web publishing is highly used as means of book design and illustration, 67.5% (173) indicated that it is rarely used, 14.2% (30) opined that web publishing is never used, while none of the respondent opined that it is highly used. Also, it is revealed that 67.5% (143) of the respondents indicated that digital printing is highly used as means of book design and illustration, 32.5% (69) of the respondents opined it is used, 13.3% (8) of the respondents opined that it is digital printing is rarely used, while none of the respondents indicated it is never used. Also, the means for each statement are 3.27, 3.20, 1.95, 2.04 and 3.67 respectively. The majority of the means showed moderate level except statements on multimedia and web publishing (1.95 and 2.04 respectively). Thus, overall decision for means of book design and illustration is moderate (Weighted Mean = 2.826; S.D = 0.498). This implies that digital printing, typography and graphics design are the means of book design and illustration at Evans Brothers Publishers and College Press Ltd while multimedia and web publishing are rarely used or never used.

Research Question Two: What are the various technological innovations used for book design and illustration in Evans Publishers and College Press?

Table 4.3: Technological Innovations (N=212)

S/N	Items	HU (%)	U (%)	RU (%)	NU (%)	Mean	Std.D	Remarks
1	E-book	0 (0)	16 (7.5)	186 (87.7)	10 (4.7)	2.03	0.35	Low Level
2	Web Publishing	39 (18.4)	158 (74.5)	15 (7.1)	0 (0)	3.11	0.49	Moderate Level
3	Digital Printing	62 (29.7)	139 (65.6)	11 (5.2)	0 (0)	3.24	0.54	Moderate Level
4	Poscasting	0 (0)	0 (0)	66 (31.1)	146 (68.9)	1.31	0.46	Not At All
5	E-Commerce	8 (3.8)	163 (76.9)	41 (19.3)	0 (0)	2.84	0.46	Moderate Level

Weighted Mean = 2.506; S.D = 0.46; Overall Decision = Moderate Level

Source: Fieldwork, 2022

Key: HU= Highly Used (4), U=Used (3), RU= Rarely Used (2) and NU= Never Used (1); Std.D = Standard Deviation

Threshold: Mean value of 0.000-1.499 = Not At All; 1.500-2.499 = Low Level; 2.500-3.499 = Moderate Level; 3.500 to 4.500 = High Level

Form Table 4.3, majority 87.7% (186) of the respondents opined that E-book is rarely used as technological innovations in publishing, 4.7% (10) of the respondents opined that its never used, 7.5% (16) of the respondents indicated that it is used while none of the respondent opined that E-

book is highly used as technological innovation. Further, majority 74.5% (158) of the respondents opined that web publishing is used as as technological innovations, 18.4% (39) respondents opined that it is highly used, 7.1% (1%) of the respondents indicated that it is rarely used, while none of the respondents opined that it is never used. Additionally, majority 65.6% (139) of the respondent submitted that digital printing is used as technological innovation in publishing firms, 29.7% (62) of the respondents opined that it is highly used, 5.2% (11) of the respondents volunteered that it is rarely used, while none of the respondents opined that digital printing is never used as technological innovation in publishing firms.

Moreover, 68.9% (146) which represent the majority of the respondent indicated that poscasting is never used as technological innovation in publishing firms, 31.1% (66) of the respondents opined that poscasting is rarely used. None of the respondents opined that podcasting is used or highly used as technological advancement. Also, 76.9% (163) of the respondents opined that E-Commerce is used as a means of technological innovation in publishing firms, 3.8% (8) of the respondents indicated that it is highly used, 19.3% (41) of the respondents opined that E-Commerce is rarely used, while none of the respondents indicated that E-Commerce is never used. This implies that majority of the respondents opined that E-Commerce is used as a means of technological innovation in publishing firms.

Further, the means for each statement are 2.03, 3.11, 3.24, 1.31 and 2.84 respectively. The majority of the means showed moderate level based on the decision threshold except statements on E-book and Poscasting (2.03 and 1.31 respectively). Thus, overall decision for technological innovation is moderate (Weighted Mean = 2.506; S.D = 0.46).

Research Question Three: What is the level of use of technological innovations in Evans Publishers and college Press for book design and illustration?

Table 4.4: Level of Use of Technological Innovations (N=212)

S/N	Items	HU (%)	U (%)	RU (%)	NU (%)	Mean	Std.D	Remarks
1	Computers	49 (23.1)	163 (76.9)	0 (0)	0 (0)	3.23	0.42	Moderate Level
2	E-book	0 (0)	22 (10.4)	148 (69.8)	42 (19.8)	1.91	0.54	Not At All
3	Web Publishing	56 (26.4)	149 (70.3)	7 (3.3)	0 (0)	3.23	0.49	Moderate Level
4	E-Marketing	5 (2.4)	159 (75)	48 (22.6)	0 (0)	2.80	0.46	Moderate Level
5	E-Commerce	27 (12.7)	173 (81.6)	12 (5.7)	0 (0)	3.07	0.42	Moderate Level
6	Digital Printing	50 (23.6)	145 (68.4)	17 (8.0)	0 (0)	3.16	0.54	Moderate Level

Weighted Mean = 2.90; S.D = 0.48; Overall Decision = Moderate Level

Source: Fieldwork, 2022

Key: HU= Highly Used (4), U=Used (3), RU= Rarely Used (2) and NU= Never Used (1); Std.D = Standard Deviation
Threshold: Mean value of 0.000-1.499 = Not At All; 1.500-2.499 = Low Level; 2.500-3.499 = Moderate Level; 3.500 to 4.500 = High Level

Table 4.9 shows level of usage of computers for technological innovations majority 76.9% (163) of the respondent opined use, while 23.1% (49) indicated highly used. Also, on the level of use of E-book for technological innovations, majority 69.8% (148) of the respondents opined rarely used, 19.8% (42) respondents indicated never used, 10.4% (22) respondents opined used, while none of the respondents opined highly used. Further, on the level of use of web publishing, 70.3% (149) of the respondents opined it is used, 26.4% (56) of the respondents opined highly used and 3.3% (7) respondents indicated rarely used.

Additionally, on the level of use of e-marketing for technological innovations, majority 75% (159) of the respondents opined its use, 2.4% (5) of the respondents opined highly used, 22.6% (48) of the respondents indicated its rarely used while none of the respondents indicated never used. On e-commerce technological innovations, 81.6% (173) of the respondents opined the use of e-commerce, 12.7% (27) of the respondents volunteered highly used, 5.7% (12) opined rarely used. Similarly, on the statement about the level of use of digital printing for technological innovations, 68.4% (145) of the respondent opined the use of digital printing, 23.6% (50) of the respondents opined highly used, 8% (17) opined rarely used while none of the respondents indicated never used. Further, the means for each statement are 3.23, 1.91, 3.23, 2.80, 3.07 and 3.16 respectively. The majority of the means showed moderate level based on the decision threshold except statements on E-book (mean=1.91). Thus, overall decision for level of use of technological innovations is moderate (Weighted Mean = 2.90; S.D = 0.48).

Research Question Four: What are the influence of technological innovations on book design

and illustration in Evans Publishers and College Press?

Table 4.5: Influence of Technological Innovations (N=212)

S/N	Items	SA (%)	A (%)	D (%)	SD (%)	Mean	Std.D	Remarks
1	Faster than manual	128 (60.4)	84 (39.6)	0 (0)	0 (0)	3.60	0.49	High Level
2	Cheap to use	0 (0)	85 (40.1)	115 (54.2)	12 (5.7)	2.34	0.58	Low Level
3	Wider market research	20 (9.4)	183 (86.3)	9 (4.2)	0 (0)	3.05	0.37	Moderate Level
4	Wider market strategies	8 (3.8)	171 (80.7)	30 (14.2)	3 (1.4)	2.87	0.47	Moderate Level
5	Easy publishing and marketing of	71 (33.5)	141 (66.5)	0 (0)	0 (0)	3.33	0.47	Moderate Level

book								
6	Effective Book distribution	49 (23.1)	163 (76.9)	0 (0)	0 (0)	3.23	0.42	Moderate Level
7	Promotion of literacy programme	1 (0.5)	105 (49.5)	106 (50)	0 (0)	2.50	0.50	Moderate Level
8	Production of attractive books	129 (60.8)	74 (34.9)	9 (4.2)	0 (0)	3.57	0.58	High Level
9	Faster and easier orders	16 (7.5)	196 (92.5)	0 (0)	0 (0)	3.08	0.26	Moderate Level
10	More accurate keeping record	124 (58.5)	88 (41.7)	0 (0)	0 (0)	3.58	0.49	High Level
Weighted Mean = 2.792; S.D = 0.46; Overall Decision = Moderate Level								

Source: Fieldwork, 2022

Key: SA= Strongly Agree (4), A=Agree (3), D= Disagree (2) and SD= Strongly Disagree (1); Std.D = Standard Deviation

Threshold: Mean value of 0.000-1.499 = Not At All; 1.500-2.499 = Low Level; 2.500-3.499 = Moderate Level; 3.500 to 4.500 = High Level

Table 4.5 shows the data on influence of technological innovations on book design and illustration in publishing firms. 60.4% (128) of the respondents strongly agreed that technological innovations is faster than manual, 39.6% (84) of the respondents agreed, none of the respondents disagreed or strongly disagreed. Further, 40.1% (85) of the respondents agreed that technological innovations on book design is cheap to use, 54.2% (115) of the respondents disagreed, 5.7% (12) respondents strongly disagreed, while none strongly agreed that technological innovations is cheaper. Also, 9.4% (20) of the respondents strongly agreed that technology innovation has a wider market research, 86.3% (183) of the respondent agreed, 4.2% (9) of the respondents disagreed, while none of the respondents strongly disagreed. Additionally, 3.8% (8) of the respondent strongly agreed that technological innovations on book design has wider market strategies, 80.7% (171) respondents agreed, 14.2% (30) of the respondents

disagreed and 1.4% (3) respondents strongly disagreed. Similarly, 33.5% (71) respondents strongly agreed that publishing and marketing of book is easy with technological innovations, 66.5% (141) respondents agreed, none of the respondent disagreed or strongly disagreed.

The table likewise revealed that technological innovations aids effective book distribution as 23.1% (49) of the respondents strongly agreed, 76.9% (163) respondents agreed, none of the respondents disagreed or strongly disagreed. Moreover, 0.5% (1) respondents strongly agree that technological innovations aids promotion of literacy programme, 49.5% (105) respondents agreed, 50% (106) respondents disagreed and none of the respondents strongly disagreed. In terms of statement on production of attractive books, 60.8% (129) respondents strongly agreed that technological innovations improves production of attractive books, 34.9% (74) respondents agreed, none of the respondent disagreed or strongly disagreed to the statement. Additionally, 7.5% (16) of the respondents strongly agreed that technological innovations aids faster and easier orders, 92.5% (196) respondents agreed. None of the respondents disagreed or strongly disagreed. Finally, 58.5% (124) respondents strongly agreed that technological innovations is more accurate in keeping record, 41.7% (88) of the respondent agreed, while none of the respondent disagreed or strongly disagreed to the statement. The table also revealed that the majority of the means on influence of technological innovations on book design and illustration in publishing firms showed moderate level based on the decision threshold except statements on cheap to use (mean=2.34). Thus, overall decision for influence of technological innovations on book design and illustration in publishing firms is moderate (**Weighted Mean = 2.792; S.D = 0.46**).

Research Question Five: What are the challenges faced in using technological innovations for book design and illustration in Evans Publishers and College Press?

Table 4.6: Challenges Faced In Using Technological Innovations (N=212)

S/N	Items	SA (%)	A (%)	D (%)	SD (%)	Mean	Std.D	Remarks
1	High cost	15 (7.1)	168 (79.2)	29 (13.7)	0 (0)	2.93	0.45	Moderate Level
2	Poor Communication	20 (9.4)	175 (82.5)	17 (8.0)	0 (0)	2.01	0.42	Low Level
3	Poor Power Supply	41 (19.3)	171 (80.7)	0 (0)	0 (0)	3.19	0.40	Moderate Level
4	Problem of Copyright	96 (45.3)	116 (54.7)	0 (0)	0 (0)	3.45	0.50	Moderate Level
5	Lack of Skilled Manpower	18 (8.5)	98 (46.2)	96 (45.3)	0 (0)	2.63	0.64	Moderate Level
6	Piracy	30 (14.2)	182 (85.8)	0 (0)	0 (0)	3.14	0.35	Moderate Level
Weighted Mean = 2.892; S.D = 0.46; Overall Decision = Moderate Level								

Source: Fieldwork, 2022

Key: SA= Strongly Agree (4), A=Agree (3), D= Disagree (2) and SD= Strongly Disagree (1); Std.D = Standard Deviation

Threshold: Mean value of 0.000-1.499 = Not At All; 1.500-2.499 = Low Level; 2.500-3.499 = Moderate Level; 3.500 to 4.500 = High Level

Table 4.6 shows the data on challenges faced in using technological innovations. 7.1% (15) of the respondent strongly agreed that high cost is part of the challenges faced, 79.2% (168) respondents agreed, 13.7% (29) of the respondent disagreed, while none of the respondents strongly disagreed. Also, 9.4% (20) of the respondents strongly agreed that poor communication is another challenges faced in using technological innovations, 82.5% (175) respondents agreed, 8% (17) respondents disagreed, while none of the respondents strongly disagreed. Further, 19.3% (41) of the respondents strongly agreed that poor power supply is a challenge faced in using technological innovations, 80.7% (171) of the respondents agreed, none of the respondents disagreed or strongly disagreed. Majority 45.3% (96) of the respondents strongly agreed that pproblem of copyright is also a problem faced in using technology, 54.7% (116) of the respondents agreed, while none of the respondents disagreed or strongly disagreed to

the statement. Similarly, 8.5% (18) respondents strongly agreed that lack of skilled manpower can pose a challenge using technology in publishing firms, 46.2% (98) of the respondents agreed, 45.3% (96) of the respondents disagreed, while none of the respondents strongly disagreed. Similarly, 14.2% (30) of the respondents strongly agreed that piracy another challenges faced in using technological innovations in publishing firms, 85.8% (182) of the respondents agreed. None of the respondents disagreed or strongly disagreed. Thus, overall decision for challenges of technological innovations on book design and illustration in publishing firms is moderate (Weighted Mean = 2.892; S.D = 0.46).

4.3 Test of Hypotheses

To test hypothesis, multiple regression analysis was used to test the relationship between the independents variables (technological innovation) and the dependent variable (book design and illustration) and the major focus is to ascertain the influence of technological innovation on book design and illustration. Thus, in general form, the hypotheses to be tested in this research work is:

H_{01} : There is no significant influence of technological innovation on book design in Evans Publishers and College Press.

Table 4.7: Relationship between Technological Innovation and Book Design

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.294 ^a	.087	.082	1.34582
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a. Predictors: (Constant), Tech_Innovation

Source: Field Work, 2022

From Table 4.7, the value R Square is 0.87. When multiplied by hundred percent, the value of R Square will be 87%. This percentage shows that 87% in the variation of book design is due to technological innovation. Which means that the independent variables explain 87% of the variation in the dependent variable. The other 13% is explained by other factors outside the model and the error term.

Table 4.8: ANOVA

ANOVA ^a							Source: Field Work, 2022
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	36.111	1	36.111	19.937	.000 ^b	F-value is Significant at P<0.05
	Residual	380.356	210	1.811			
	Total	416.467	211				
a. Dependent Variable: Book_Design							
b. Predictors: (Constant), Tech_Innovation							

From Table 4.8, the p-value is 0.000 which is much less than 0.05 and highly significant since p-value ($0.000 < 0.05$) at 95% confidence level. The F-test rejects the null hypothesis that states the independent variable (technological innovation) have a significant relationship with book design and it can be concluded that there exists variation in book design due to technological innovation.

Table 4.9: Coefficients of Multiple Regression Analysis for Relationship between Technological Innovation on Book Design

Coefficients ^a					
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B

		B	Std. Error	Beta		Lower Bound	Upper Bound
1	(Constant)	8.510	1.266	6.724	.000	6.015	11.005
	Tech_Innovation	.450	.101	.294	4.465	.000	.251 .648

a. Dependent Variable: Book_Design

Source: Fieldwork, 2022

**Beta Coefficients significant at 0.05 (P<0.05)*

From Table 4.9, the constant is 8.510 which is the estimate of β_0 which is significant at 0.000 and its highly significant. Also, the independent variables (technological innovation) has a positive relationship with book design. From the standard error of technological innovation, it is obvious that 0.101 which is lesser than half of the standard errors numerical value of the parameter estimate. Thus the standard error for technological innovation shows there is a positive relationship between it and book design (dependent variable). In other words, the null hypothesis should be rejected because the test is statistically significant. Also the t-test value is significant for independent variable $P=0.000$ since $y_g/-$ they satisfy $P<0.05$.

Also from the Table, the results revealed that the level of significance was 0.000 ($p<0.05$) this implies that the regression model is significant in predicting the correlation between technological innovation and book design. Additionally, R Square in Table 4.7 shows that about 87% percent of the total variation of the dependent variable is explained by the independent variables (technological innovation). Similarly, the computed empirical value of F-test is 19.937 which is significant at $p=0.00$. It is therefore concluded that the F-test is statistically significant. The independents variable (technological innovation) statistically and significantly predict the dependent variable (book design). This therefore accomplished the part of the research aim “To examine the

influence of technological innovation on book design and illustration in Evans Publishers and College Press”. Hence, the null hypothesis should be rejected because the test is statistically significant. Therefore, the whole regression is statistically significant.

H₀₂: Technological innovation does not have significant influence on book illustration in Evans Publishers and College Press.

Table 4.10: Relationship between Technological Innovation and Book Illustration

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.324 ^a	.076	.071	1.24567

a. Predictors: (Constant), Tech_Innovation

Source: Field Work, 2022

Table 4.10 shows that, the value R Square value 0.76 (76%). This percentage shows that 76% in the variation of book design and illustration is due to technological innovation. Which means that the independent variables explain 76% of the variation in the dependent variable. The other 24% is explained by other factors outside the model and the error term.

Table 4.11: ANOVA

ANOVA ^a							Source: Field Work, 2022
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	25.142	1	37.014	22.001	.000 ^b	P- value is Signif icant at P<0.0
	Residual	290.481	210	1.621			
	Total	326.527	211				

a. Dependent Variable: Book_Illustration

b. Predictors: (Constant), Tech_Innovation

From Table 4.11, at 95% confidence level, P value is significant at 0.000 ($P < 0.05$). The F-test rejects the null hypothesis that states the independent variable (technological innovation) have a significant relationship with book illustration and it can be concluded that there exists variation in book illustration due to technological innovation.

Table 4.12: Coefficients of Multiple Regression Analysis for Relationship between Technological Innovation on Book Illustration

		Coefficients ^a					95.0% Confidence Interval for B	
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Lower Bound	Upper Bound
		B	Std. Error	Beta				
1	(Constant)	6.429	1.300		5.636	.000	5.216	12.002
	Tech_Innovation	.380	.091	.269	2.495	.000	.201	.570

a. Dependent Variable: Book_Illustration

Source: Fieldwork, 2022

**Beta Coefficients significant at 0.05 ($P < 0.05$)*

From Table 4.11, the estimate of β_0 (6.229) is significant at 0.000 and its highly significant.

Also, the independent variables (technological innovation) has a positive relationship with book design and illustration. Also the t-test value is significant for independent variable $P=0.000$ since they satisfy $P < 0.05$.

Further, the results revealed that the level of significance was 0.000 ($p < 0.05$) this implies that the regression model is significant in predicting the correlation between technological innovation and book illustration. Similarly, the computed empirical value of F-test is 22.001 which is significant at $p=0.00$. It is therefore concluded that the F-test is statistically significant. The independent variable (technological innovation) statistically and significantly predict the

dependent variable (book illustration). This therefore accomplished the research aim “To examine the influence of technological innovation on book design and illustration in Evans Publishers and College Press”. Hence, the null hypothesis should be rejected because the test is statistically significant. Therefore, the whole regression is statistically significant.

4.4 Discussion and Findings

This section discussed the significant findings of this study. Based on this study, the influence of technological innovation on book design and illustration in Evans Publishers and College Press have been analysed.

Research question one from Table 4.2 shows that majority (96.7%) of the respondents identified graphics design as highly used as means of book design and illustration as majority opined “highly used and used” options of the questionnaire. This study also indicated that majority (93.4%) of the respondents opined that typography is used as means of book design and illustration. Similarly, the study showed that digital printing is also a means that is highly used in book design and illustration as majority where majority (86.7%) of the respondents opined that it is highly used. However, majority (92.5% and 81.7%) opined that multimedia and web publishing is rarely used and never used respectively as means of book design and illustration. Also, the majority of the means showed moderate level except statements on multimedia and web publishing (1.95 and 2.04 respectively). Thus, overall decision for means of book design and illustration is moderate. This therefore implies that digital printing, typography and graphics design are the means of book design and illustration at Evans Brothers Publishers and College Press Ltd while multimedia and web publishing are rarely used or never used.

Also, research question two from Table 4.3 indicated that majority (92.9%) of the respondents opined that web publishing is technological innovations used for book design and illustration in

Evans Publishers and College Press. Also, majority (95.3% and 80.7%) volunteered that digital printing and E-commerce respectively are technological innovations used for book design and illustration in Evans Publishers and College Press. However, all of the respondents opined that podcast is rarely and never used as technological innovations used for book design and illustration in Evans Publishers and College Press, while majority (92.4%) indicated that E-book is rarely used and never used. The majority of the means showed moderate level based on the decision threshold except statements on e-book and Poscasting (2.03 and 1.31 respectively), overall decision for technological innovation is moderate. This implies that web publishing, digital printing, and e-commerce are the technological innovation used for book design and illustration in Evans Brothers Publishers and College Press Ltd, while podcast and e-book are rarely used or never used. This result is similar to the findings in a work on Technological innovations and total factor productivity in dairy industry¹. Though not in publishing firms, tools of production functions were used to determine the total factor productivity in microeconomics. It is determined the impact of technological innovation on overall factor productivity and corporate growth.

Research question three from Table 4.4 shows that all the respondents opined that level of use of computer in Evans Publishers and college Press for book design and illustration is highly used. 96.7%, 77.4%, 94.3% and 92% which represents the majority of the respondents opined that web publishing, e-marketing, e-commerce, digital printing respectively has high level in Evans Publishers and college Press for book design and illustration, while e-book has low level of usage as majority (89.6%) indicated that e-book is rarely and never used. The majority of the means showed moderate level based on the decision threshold except statements on E-book (mean=1.91). Thus, overall decision for level of use of technological innovations is moderate.

This implies that all other technological innovations except e-book has a high level of use in Evans Publishers and college Press for book design and illustration.

Research question four from Table 4.5 showed that technological innovation has influence on book design and illustration in Evans Publishers and College Press. Majority of the respondents agreed that technological innovations aids faster production than manual, wider market research, wider market strategies, easy publishing and marketing of books, effective book distribution, production of attractive books, faster and easier order and more accurate keeping record. However, some opined that technological innovation is not cheap to use due to some challenges highlighted in Table 4.6 and does not promote literacy programme. Also for Table 4.5, overall decision for influence of technological innovations on book design and illustration in publishing firms is moderate. This result is in line with the findings in a work on impact of information technology innovation on firm performance in Kenya². The findings indicate that technology innovation influences firm performance positively.

Research question five from Table 4.6 shows that the various challenges faced in using technological. Majority of the respondents agreed that high cost, poor communication, poor power supply which is a major challenge especially in developing countries. Also, problem of copyright, poor communication, lack of skilled manpower and piracy are also opined as challenges by majority of the respondents. This therefore implies that there are various challenges faced by publishing firms using technological innovation and the overall mean decision for challenges of technological innovations on book design and illustration in publishing firms is moderate.

To find the relationship between the independent variable (technological innovation) and the dependent variable (book design and illustration in Evans Publishers and College Press.),

multiple regression analysis was used, the variables were tested to ascertain if the identified independent variables have significant effect on the dependent variable in a bid to achieve the research aim. Table 4.8 and 4.11 revealed that the level of significance was 0.000 ($p < 0.05$) this implies that the regression model is significant in predicting the correlation between the independent and the dependent variable. The computed empirical value of F-test is 19.937 and 22.001 respectively which is significant at $p = 0.000$. It is therefore concluded that the F-test is statistically significant for both hypothesis. With the test, it was discovered that technological innovation has substantial influence on book design and illustration in Evans Publishers and College Press. This results corroborated the work titled “The place of information, communication and Technology (ICT) in book publishing operations in Nigeria” which reported that communication and Technology positively influences book publishing.

Endnotes

¹ A Konarev, S Konstantinova, G.V Georgieva . Technological innovations and total factor productivity in dairy industry. In IOP Conference Series: Materials Science and Engineering 2019 Oct 1 (Vol. 618, No. 1, p. 012082). IOP Publishing

² SM Chege, D Wang, SL Suntu. *Impact of information technology innovation on firm performance in Kenya*. Information Technology for Development. 2020 Apr 2;26(2):316-45.

³ LA Ihebuzor, AS Odu. *The place of information, communication and Technology (ICT) in book publishing operations in Nigeria*. **Singaporean Journal of Business, Economics and Management Studies**. 2016 Mar;51(3397):1-0.

Chapter Five

Conclusion

This chapter focuses on the summary of findings, conclusions, recommendations based on the findings of the study, contribution to knowledge and the areas of further research.

5.1. Summary of Findings

This study was carried out to ascertain the influence of technological innovation on book design and illustration in Evans Publishers and College Press. Findings revealed that majority of the respondents are males and within 31-40 years of age. Most of the respondents are graduates (Polytechnic and university graduates). However, 10 respondents have M.Sc. and have M.Sc and 12 are OND graduate. A major fraction of the respondents, (135) have over 10 years of work experience. The findings also revealed that majority (173) of the respondents are junior staff.

From the findings of this study, there is a significant influence of technological innovation on book design and illustration in Evans Publishers and College Press. Research question one

revealed that digital printing, typography and graphics design are the means of book design and illustration at Evans Brothers Publishers and College Press Ltd while multimedia and web publishing are rarely used or never used. Also, overall decision for means of book design and illustration is moderate ($\bar{x}=2.826$). Research questions two showed that web publishing, digital printing, and e-commerce are the technological innovation used for book design and illustration in Evans Brothers Publishers and College Press Ltd, while podcast and e-book are rarely used or never used. Also, overall decision for technological innovation is moderate ($\bar{x}=2.506$). Research question 3 also showed that all other technological innovations except e-book has a high level of use in Evans Publishers and college Press for book design and illustration. Overall decision for technological innovation is moderate ($\bar{x}=2.506$). Overall decision for level of use of technological innovations is moderate ($\bar{x}=2.90$). Research question four showed that majority of the means on influence of technological innovations on book design and illustration in publishing firms showed moderate level based on the decision threshold except statements on cheap to use. Findings also showed that technological innovation has a great influence on book design and illustration in publishing firms as it is faster than manual, has wider market research, wider market strategies, ease in publishing and marketing of book, more accurate keeping record, production of attractive books amongst others. The overall decision for influence of technological innovations on book design and illustration in publishing firms is moderate ($\bar{x}=2.792$).

Research question five revealed the challenges in using technological innovation and they include; high cost, Poor Power Supply, Poor Communication, Problem of Copyright, Lack of Skilled Manpower and Piracy. The overall decision for challenges of technological innovations on book design and illustration in publishing firms is moderate ($\bar{x}=2.892$). The findings from the

hypotheses revealed that there is a significant influence of technological innovation on book design and illustration in Evans Publishers and College Press. ($F_{212} = 19.937$; Significance = .000; $P < 0.05$). It also showed that technological innovation (Beta = .294; $t = 4.465$; Significance = .000).

5.2. Conclusion

This study was carried out to examine influence of technological innovation on book design and illustration in Evans Publishers and College Press. Findings revealed moderate mean decision levels of book design and illustration, technological innovations used, influence of technological innovations and challenges faced in using technological innovations. In terms of relationship, the findings reveal a significant influence of technological innovation on book design and illustration in Evans Publishers and College Press. In view of the study findings, it can be concluded that technological innovation greatly influenced book design and illustration in Evans Publishers and College Press

5.3. Recommendations

In accordance with the above findings, the study suggests that publishers should include the development of e-book as part of technological innovations. Also in terms of challenges, the management of publishing companies should endeavour to recruit skilled manpower or professionals in order to improve productivity. Government should also provide a better platform for publishing and other manufacturing firms as high cost of material, poor power supply will greatly affect their production capacity. Hence making cost of books expensive. In terms of piracy and copy write, stiffer laws should be put in place by the government and other stakeholders against back door productions (without the authors consent) and pirates as this will

reduce financial loss. The independence of auditors be considerably improved in order to improve the financial performance (ROA) of organisations. There is also a requirement for publishers to regularly refresh their knowledge and hone their abilities in light of evolving times and technologies. The management of publishing and book houses should continue to organise seminars and workshops in which their employees are frequently taught and trained on new technologies. The management of publishing companies should also acquire the most up-to-date technological equipments; this would facilitate the rapid supply of services and production.

5.4 Contribution to Knowledge

The research provides more ground for further studies on importance of technology in book designing and illustration which could assist in allowing publishing firms to create an efficient and effective process of book designing and illustration. Empirically, this study adds to the pool of prior studies by showing that there is a significant influence of technological innovation on book design and illustration in Evans Publishers and College Press. Publishers will realize the importance of technology in book designing and illustration as a means of up-skilling their publishing and marketing abilities. It will also provide them important insights into technological integrated innovations, enabling them to strengthen their programs to better prepared to deal with the diverse influence of numerous innovations in technology.

5.5 Suggestions for Further Research

The following are the suggestions for further research:

- i. Further investigations can be done on the influence of technological innovation on the financial performance of other companies or institutions such as banking, educational and

commercial, among others in the state and in the country at large so as to generate adequate empirical literature on the topic.

- ii. Research could also be done on the effect of challenges of technological innovation and organizational performance

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Appendix I

**Lead City University Ibadan, Oyo State
Faculty of Communication and Information Sciences
Department of Mass Communication and Media Technology**

Technological Innovation and Book Design and Illustration

Dear Respondent,

I am a postgraduate student of the department of Mass communication and Information Sciences. This questionnaire is for the purpose of eliciting your response on Technological Innovation and Book Designing and Illustration. This is purely for the purpose of collecting data for a Master's Degree research and any information provided will be treated in strict confidentiality and implemented only for academic purposes.

Thanks

Tolumoye Favour Waribagha

Appendix II

Section A: Demographic Data

Please answer the questions and tick as appropriate

1. Name of Publishing Firm: _____
2. Status: _____
3. Nature of job: _____
4. Years on the job: _____

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Section B: Listed below are different statements on means of book design and illustration at your publishing firms. Please tick (✓) which ever is applicable among the options.

S/N	Items	Highly Used	Used	Rarely Used	Never Used
1	Graphics Design				
2	Typography				
3	Multimedia				
4	Web Publishing				
5	Digital Printing				
6	Others (pls Specify)				

Section C: Listed below are different statement on the various Technological Innovations used at your publishing firms. Please tick (✓) which ever is applicable among the options.

S/N	Items	Highly Used	Used	Rarely Used	Never Used
1	E-book				
2	Web Publishing				
3	Digital Printing				
4	Poscasting				
5	E-Commerce				
6	Others (Pls Specify)				

Section D: Listed below are different statement on the Level of Use of Technological Innovations in your publishing firms. Please tick (✓) whichever is applicable among the options.

S/N	Items	Highly Used	Used	Rarely Used	Never Used
1	Computers				
2	E-book				
3	Web Publishing				
4	E-Marketing				
5	E-Commerce				
6	Digital Printing				
7	Others (Pls Specify)				

SECTION E: Listed below are different statement the Influence of Technological Innovations on Book Design and Illustration in publishing firms. Please tick (✓) whichever is applicable among the options.

S/N	Items	Strongly Agree	Agree	Disagree	Strongly Disagree
1	Faster than manual				
2	Cheap to use				
3	Wider market research				
4	Wider market strategies				
5	Easy publishing and marketing of book				
6	Effective Book distribution				
7	Promotion of literacy programme				
8	Production of attractive books				
9	Faster and easier orders				
10	More accurate keeping record				
11	Communication within and outside companies has been better facilitated through technological innovations				
13	The need for warehousing of books has been reduced				
14	Reaching the customer is made easier and faster				
15	ICT revolutionised book publishing				
16	ICT has made book publishing and marketing clumsier than before				

Section F: Listed below are different statement the Challenges faced in using Technological Innovations in your publishing firms. Please tick (√) whichever is applicable among the options.

S/N	Items	Strongly Agree	Agree	Disagree	Strongly Disagree
1	High cost				
2	Poor Communication				
3	Poor Power Supply				
4	Problem of Copyright				
5	Privacy and Security				
6	Lack of Skilled Manpower				
7	Competition				
8	Piracy				

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Appendix III

(a) The Entire Questionnaire

Reliability Statistics

Cronbach's Alpha	N of Items
.912	32

(b) Book Design and Illustration

Reliability Statistics

Cronbach's Alpha	N of Items
.856	5

(c) Technological Innovations

Reliability Statistics

Cronbach's Alpha	N of Items
.856	5

(d) Level of Use of Technological Innovations

Reliability Statistics

Cronbach's Alpha	N of Items
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.871	6
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(c) Influence of Technological Innovations

Reliability Statistics

Cronbach's Alpha	N of Items
.951	10

(d) Challenges Faced in Using Technological Innovations

Reliability Statistics

Cronbach's Alpha	N of Items
.877	6

It can be seen from the above table (a) for the overall questionnaire that Cronbach's alpha is **0.912**, which indicates a high level of internal consistency for our scale.

Appendix IV

Statistics

		Gender	Age	Organizationa l_Status	Years_of_Ser vice
N	Valid	212	212	212	212
	Missing	0	0	0	0

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	155	73.1	73.1	73.1
	Female	57	26.9	26.9	100.0
	Total	212	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-30	24	11.3	11.3	11.3

31-40	138	65.1	65.1	76.4
41-50	36	17.0	17.0	93.4
51-60	11	5.2	5.2	98.6
60 and Above	3	1.4	1.4	100.0
Total	212	100.0	100.0	

Organizational_Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Senior Staff	39	18.4	18.4	18.4
Junior Staff	173	81.6	81.6	100.0
Total	212	100.0	100.0	

Years_of_Service

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Below 5years	25	11.8	11.8	11.8
Between 5-10years	52	24.5	24.5	36.3
Above 10years	135	63.7	63.7	100.0
Total	212	100.0	100.0	

Descriptive Statistics

	N	Mean	Std. Deviation
Graphics Design	212	3.2736	.51578
Typography	212	3.2028	.54328
Multimedia	212	1.9528	.44364
Web Publishing	212	2.0425	.57027
Digital Printing	212	3.6745	.46966
Valid N (listwise)	212		

Statistics

		Graphics Design	Typograph y	Multimedia	Web Publishing	Digital Printing
N	Valid	212	212	212	212	212
	Missing	0	0	0	0	0

Graphics Design

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely Used	7	3.3	3.3	3.3
	Used	140	66.0	66.0	69.3
	Highly Used	65	30.7	30.7	100.0
	Total	212	100.0	100.0	

Typography

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Rarely Used	14	6.6	6.6	6.6
Used	141	66.5	66.5	73.1
Highly Used	57	26.9	26.9	100.0
Total	212	100.0	100.0	

Multimedia

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never Use	26	12.3	12.3	12.3
Rarely Used	170	80.2	80.2	92.5
Used	16	7.5	7.5	100.0
Total	212	100.0	100.0	

Web Publishing

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never Use	30	14.2	14.2	14.2
Rarely Used	143	67.5	67.5	81.6

Used	39	18.4	18.4	100.0
Total	212	100.0	100.0	

Digital Printing

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Used	69	32.5	32.5	32.5
Highly Used	143	67.5	67.5	100.0
Total	212	100.0	100.0	

Descriptive Statistics

	N	Mean	Std. Deviation
E-book	212	2.0283	.34988
Web Publishing	212	3.1132	.49300
Digital Printing	212	3.2406	.53649
Podcasting	212	1.3113	.46413
E-Commerce	212	2.8443	.45594
Valid N (listwise)	212		

Statistics

		E-book	Web Publishing	Digital Printing	Poscasting	E-Commerce
N	Valid	212	212	212	212	212
	Missing	0	0	0	0	0

E-book

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never Use	10	4.7	4.7	4.7
	Rarely Used	186	87.7	87.7	92.5
	Used	16	7.5	7.5	100.0
	Total	212	100.0	100.0	

Web Publishing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely Used	15	7.1	7.1	7.1
	Used	158	74.5	74.5	81.6
	Highly Used	39	18.4	18.4	100.0
	Total	212	100.0	100.0	

Digital Printing

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Rarely Used	11	5.2	5.2	5.2
Used	139	65.6	65.6	70.8
Highly Used	62	29.2	29.2	100.0
Total	212	100.0	100.0	

Poscasting

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never Use	146	68.9	68.9	68.9
Rarely Used	66	31.1	31.1	100.0
Total	212	100.0	100.0	

E-Commerce

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Rarely Used	41	19.3	19.3	19.3
Used	163	76.9	76.9	96.2
Highly Used	8	3.8	3.8	100.0
Total	212	100.0	100.0	

Descriptive Statistics

	N	Mean	Std. Deviation
Computers	212	3.2311	.42255
E-book	212	1.9057	.54256
Web Publishing	212	3.2311	.49488
E-Marketing	212	2.7972	.45809
E-Commerce	212	3.0708	.42403
Digital Printing	212	3.1557	.54147
Valid N (listwise)	212		

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Computers

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Used	163	76.9	76.9	76.9

Highly Used	49	23.1	23.1	100.0
Total	212	100.0	100.0	

E-book

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never Use	42	19.8	19.8	19.8
Rarely Used	148	69.8	69.8	89.6
Used	22	10.4	10.4	100.0
Total	212	100.0	100.0	

Web Publishing

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Rarely Used	7	3.3	3.3	3.3
Used	149	70.3	70.3	73.6
Highly Used	56	26.4	26.4	100.0
Total	212	100.0	100.0	

E-Marketing

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Rarely Used	48	22.6	22.6	22.6
	Used	159	75.0	75.0	97.6
	Highly Used	5	2.4	2.4	100.0
	Total	212	100.0	100.0	

E-Commerce

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely Used	12	5.7	5.7	5.7
	Used	173	81.6	81.6	87.3
	Highly Used	27	12.7	12.7	100.0
	Total	212	100.0	100.0	

Digital Printing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely Used	17	8.0	8.0	8.0
	Used	145	68.4	68.4	76.4
	Highly Used	50	23.6	23.6	100.0
	Total	212	100.0	100.0	

Descriptive Statistics

	N	Mean	Std. Deviation
Faster than manual	212	3.6038	.49027
Cheap to use	212	2.3443	.58360
Wider market research	212	3.0519	.36706
Wider market strategies	212	2.8679	.46844
Easy publishing and marketing of book	212	3.3349	.47307
Effective Book distribution	212	3.2311	.42255
Promotion of literacy programme	212	2.5047	.51053
Production of attractive books	212	3.5660	.57629
Faster and easier orders	212	3.0755	.26478
More accurate keeping record	212	3.5849	.49390
Valid N (listwise)	212		

Faster than manual

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid agree	84	39.6	39.6	39.6
strongly agree	128	60.4	60.4	100.0
Total	212	100.0	100.0	

Cheap to use

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly disagree	12	5.7	5.7	5.7
disagree	115	54.2	54.2	59.9
agree	85	40.1	40.1	100.0
Total	212	100.0	100.0	

Wider market research

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid disagree	9	4.2	4.2	4.2
agree	183	86.3	86.3	90.6
strongly agree	20	9.4	9.4	100.0
Total	212	100.0	100.0	

Wider market strategies

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly disagree	3	1.4	1.4	1.4
disagree	30	14.2	14.2	15.6
agree	171	80.7	80.7	96.2
strongly agree	8	3.8	3.8	100.0

Total	212	100.0	100.0
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Easy publishing and marketing of book

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid agree	141	66.5	66.5	66.5
strongly agree	71	33.5	33.5	100.0
Total	212	100.0	100.0	

Effective Book distribution

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid agree	163	76.9	76.9	76.9
strongly agree	49	23.1	23.1	100.0
Total	212	100.0	100.0	

Promotion of literacy programme

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid disagree	106	50.0	50.0	50.0
agree	105	49.5	49.5	99.5
strongly agree	1	.5	.5	100.0

Total	212	100.0	100.0
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Production of attractive books

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid disagree	9	4.2	4.2	4.2
agree	74	34.9	34.9	39.2
strongly agree	129	60.8	60.8	100.0
Total	212	100.0	100.0	

Faster and easier orders

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid agree	196	92.5	92.5	92.5
strongly agree	16	7.5	7.5	100.0
Total	212	100.0	100.0	

More accurate keeping record

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid agree	88	41.5	41.5	41.5
strongly agree	124	58.5	58.5	100.0

Total	212	100.0	100.0
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Descriptive Statistics

	N	Mean	Std. Deviation
High cost	212	2.9340	.45183
Poor Communication	212	2.0142	.41851
Poor Power Supply	212	3.1934	.39590
Problem of Copyright	212	3.4528	.49895
Lack of Skilled Manpower	212	2.6321	.63583
Piracy	212	3.1415	.34937
Valid N (listwise)	212		

High cost

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid disagree	29	13.7	13.7	13.7
agree	168	79.2	79.2	92.9
strongly agree	15	7.1	7.1	100.0
Total	212	100.0	100.0	

Poor Communication

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly disagree	17	8.0	8.0	8.0
disagree	175	82.5	82.5	90.6
agree	20	9.4	9.4	100.0
Total	212	100.0	100.0	

Poor Power Supply

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid agree	171	80.7	80.7	80.7
strongly agree	41	19.3	19.3	100.0
Total	212	100.0	100.0	

Problem of Copyright

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid agree	116	54.7	54.7	54.7
strongly agree	96	45.3	45.3	100.0
Total	212	100.0	100.0	

Lack of Skilled Manpower

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid disagree	96	45.3	45.3	45.3
agree	98	46.2	46.2	91.5
strongly agree	18	8.5	8.5	100.0
Total	212	100.0	100.0	

Piracy

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid agree	182	85.8	85.8	85.8
strongly agree	30	14.2	14.2	100.0
Total	212	100.0	100.0	

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Tech_Innovation ^b		Enter

a. Dependent Variable: Book_Design

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.294 ^a	.087	.082	1.34582

a. Predictors: (Constant), Tech_Innovation

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.111	1	36.111	19.937	.000 ^b
	Residual	380.356	210	1.811		
	Total	416.467	211			

a. Dependent Variable: Book_Design

b. Predictors: (Constant), Tech_Innovation

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	8.510	1.266		6.724	.000	6.015	11.005
	Tech_Innovation	.450	.101	.294	4.465	.000	.251	.648

a. Dependent Variable: Book_Design

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method

1	Tech_Innovation ^b		. Enter
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a. Dependent Variable: Book_Illustration

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.324 ^a	.076	.071	1.24567

a. Predictors: (Constant), Tech_Innovation

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.142	1	37.014	22.001	.000 ^b
	Residual	290.481	210	1.621		
	Total	326.527	211			

a. Dependent Variable: Book_Illustration

b. Predictors: (Constant), Tech_Innovation

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound

1	(Constant)	6.429	1.300		5.636	.000	5.216	12.002
	Tech_Innovation	.380	.091	.269	2.495	.000	.201	.570

a. Dependent Variable: Book_Illustration

Bio-Data

Name: Waribagha Favour Tolumonye.

Email address: tolumoyew@gmail.com

Telephone numbers: 09066087147, 08110486303

House Address: To be supplied on demand.

Date of Birth: 17th October, 1996

Sex: Female

Marital Status: Single

State of Origin: Bayelsa

Nationality: Nigerian.

Local Government Area: Kolokuma/Opokuma.

Language Spoken: English and Ijaw.

SUMMARY

I am a team player, Communication Strategist, Time Management Adherent, Goal Getter, and a Graduate of Mass Communication. My career prospect is to put into full use, my training and experience acquired over time for the attainment of set objectives in any file or my endeavours as a grow in my career path. The main trust of my personal work ethics is finding a reputable organization that would enable me improve on my acquired academic and soft skills and by extension, provide me with the platform to actualize hidden competencies, skills, ideas, and initiatives. This is because I strongly believe that, working with the existing staff and facilities to meet organizational objectives and achieved managerial goals and targets is one of my target ambitions as well as learning for continuous improvement and optimum growth of any organization I am opportunuted to work for.

CORE COMPETENCIES:

- Ability to adjust to new challenging situations.
- Good with people management and customer service.
- Effective and efficient communication skills.
- Integrity, transparency and honesty.
- Proficiency in the use of IT and Computer software.
- Good team player and proactive problem solver.
- Analytical and leadership skills.
- Learning and listening skills

WORK EXPERIENCES:

1. **Nigeria Content Development and Monitoring Board (NCDMB).Yenegoa,Bayelsa State , Nigeria. May 8th – October 12th 2017. (Six Months SIWES Industrial attachment).**
 - Worked as a Reporting Officer to the departmental Director General.
 - Handled Minutes of meeting.
 - Filing and Documentation of office files. Monitored company dispatch duties.

2. **National Agency for the Prohibition of Trafficking In Persons (NAPTIP). 2028,Dalaba Street, Wuse Zone 5, Abuja, FCT , Nigeria.(National Youth Service Corps, NYSC). 2018 – 2019**
 - Worked as Customer Service Officer.
 - Carried out the Mandatory One Year National Youth Service Scheme in the Investigation & Monitoring Department of the Agency to report cases of suspected human trafficking.

- Management of customer inquiries.
 - Making follow up calls within Departments of the Agency and external customers.
-

EDUCATIONAL QUALIFICATIONS:

- Masters degree program (M.Sc.) :Currently in progress and In View to be completed in 2021 In the department of Mass Communication and Media Technology at Lead City University , Ibadan ,Oyo State.
 - Bachelors of Science (B.Sc.) , 2nd Class lower, Mass Communication and Media Technology. Lead City University, Ibadan, Oyo State. 2015 – 2018.
 - African Examination Council (WAEC). Opokuma Grammar School, Bayelsa State, Nigeria. 2012.
 - First School Leaving Certificate (FSLC) .Methodist Nursery/Primary School, Mbonu Street, D/Line Port-Harcourt, Rivers State.2007.
-

HOBBIES:

Reading, Travelling, Researching, Playing Table Tennis and Chess.

REFERENCES: Available upon request.

Signature

Date

The University Compliance Certification

This is to certify that this thesis by Tolumoye Favour WARIBAGHA (LCU/PG/001649) in the Department of Mass Communication and Media Technology, Faculty of Communication and Information Science, Lead City University, Ibadan is full compliance with the approved University format and style.

Signature

Date

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Tolumoye Favour WARIBAGHA LCU/PG/001649

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