



Università
Ca' Foscari
Venezia

Master's Degree

in

Business
Administration

Final Thesis

The role of infographics in Integrated Reporting

Supervisor

Ch. Prof. Chiara Mio

Graduand

Giorgia
Schivo
854078

Academic Year

2019/2020

INDEX

Abstract	4
Chapter One: Introduction	6
1.1 Background of the study	6
1.2 Conceptualization	9
1.2.1 Visual Communication	9
1.2.2 Infographics	9
1.2.3 Static Infographics	9
1.2.4 Motion Infographics	10
1.2.5 Integrated Reporting (IR)	10
1.2.6 Data Visualization	10
1.3 Problem Statement	10
1.4 Significance of the Study	11
1.5 Practical Contribution	12
1.6 Theoretical Contribution	12
1.7 Research Objectives & Questions	12
1.8 Scope of the Study	13
Chapter Two: Literature Review	14
2.1 Introduction	14
2.2 Historical Perspective	15
2.3 Context	20
Chapter Three: Methodology	21
3.1 Knowledge claim	21
3.1.1 Constructivism	21
3.2 Research Approach	21
3.2.1 Data Collection	22
3.2.2 Interviewing	23
3.2.3 Semi-Structured Interviews	24
3.2.4 Population	24
3.2.5 Sample	24
3.2.6 The Respondents	26
3.2.7 Relationship between Population and Sample	26
3.3 Reliability and validity	26
3.4 Sampling Technique	27
3.4.1 Purposive Sampling Technique	27
3.5 Qualitative Data Analysis (QDA)	28
3.6 Thematic Analysis	28
3.6.1 Familiarization	29
3.6.2 Generating Initial Codes	29
3.6.3 Searching for themes	29
3.6.4 Reviewing Themes	29
3.6.5 Defining and Naming Themes	30
3.7 Presenting Results	30
Chapter Four: Results	32

4.1 Secondary Data Findings.....	32
4.1.1 Representation of Value Creation through Infographics	32
4.1.2 Representation of Risk Management through Infographics	36
4.1.3 Representation of Business Model through Infographics	40
4.1.4 The portrayal of Business History through Infographics	42
4.1.5 The portrayal of Business Overview through Infographics	44
4.2 Primary data findings	45
4.2.1 Introduction	45
4.2.2 Selected firms.....	46
4.2.3 Analysis of primary research's data	55
4.2.4 Thematic Analysis	63
<i>Chapter Five: Conclusions.....</i>	<i>73</i>
5.1 Conclusion	73
5.2 Future work.....	77
5.3 Future Implications	78
<i>Appendix A: using infographics in integrated reports by real companies.....</i>	<i>79</i>
<i>INDEX OF FIGURES</i>	<i>89</i>
<i>References</i>	<i>90</i>

ABSTRACT

In the present globe, everyone is well aware of information technology and vast bombardment of insignificant information. Similarly, marketers and business owners have been carrying along with various annual reports and information which has become least important for the prospective readers. Taking into account the huge data information, it is difficult to spot what is most relevant, crucial, and significant to their respective business needs. One way to manage mass amounts of details and information is through infographics. What are Infographics? In core, infographics are a visual representation of a set of ideas and informations to make a boosting effect for the quick and easiest understanding of the concept. It's no secret that pictorial effects are worthy of a thousand words. They can pass information about a subject clearer and more effectively than the pure textual content; although, this condition depends on the presentation and quality of infographics.

This thesis is intended to explore the use of infographics in Integrated Reporting. Besides opportunities and advantages created by the use of infographics in integrated reporting, I have also explored the various associated challenges faced by business firms and organizations around the world. The findings of the study verify that infographics were effective in presenting the information and were effective in understanding the content of integrated reports. The results of both primary and secondary data studies revealed that infographics are positively impacting the integrated reporting of business firms around the world. Analysis of annual integrated reports of business firms and companies around the world revealed that infographics are usually used to convey value creation processes, business models, performance, stakeholder engagement overviews, performance highlights, input, output, risk management and revenue process in an effective way.

Key Words: integrated reporting, infographics, business firm

Declaration

No part of the work referred to in this thesis has been submitted in the assistance of a proposal for a further degree or qualification of this or any other educational institution.

CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Visual communicators consider the use of diagrams, illustrations, graphs, signs, and symbols in combination with data content and information as infographics. The word infographic is perhaps the most popular and used word to refer to the subject and is used throughout this thesis to prevent any confusion. Visual information may be classified under a far broader definition, that includes all forms of data and information, which involve the use of a substantial volume of details to convey a clear, organized and easy-to-understand visual message. Prof Meirelles has defined infographics as the form of visual-based communication in which illustration objects, charts, diagrams are communicated alongside verbal expression to convey information and knowledge that may otherwise not be feasible (Meirelles, 2013).

The fundamental elements required for the development of infographics are information and data. Designers usually use graphics software to develop them and visual content is developed in the shape of lines, arrows, boxes, symbols, and other necessary elements. There are various forms of infographics that represent and interpret complex and mostly theoretical content-based data in the form of easy to understand visual language. Infographics are effective visual tools to convey complicated data and information. In fact, in combination with data and design, they allow individuals and organizations to convey messages to their stakeholders concisely and effectively. More technically, an infographic is characterized as a visualization of data or concepts that attempts to communicate complicated knowledge to the audience in a way that can be quickly grasped and easily understood. The preference of representation of infographics is centered on what is the simpler model that communicates the most significant components of the statistical data.

Infographics are used to express information and data in a visual format. As discussed above, infographics were present in the form of graphs, layouts, and maps in the past, but now that we are in the digital learning age, infographics are considered very significant for every kind of visual communication. The current digital learning environment and technological shift,

however, is very distinct from traditional media; it mainly concerns the usage and application of the visual content for communication. This technological shift has provided a chance to rethink the development and improvement of infographics for visual communication. Infographics are a very powerful medium and researching the ability and scope of infographics will bring significant benefits in the future. Infographics are now commonly utilized in numerous projects in the digital world. Visual infographics can be developed as images, illustrations, multimedia, and digital tools, apart from viewing them as various forms of static objects.

The concept of Infographics is now commonly used as a modeling and visualization tool. A large number of clients and developers prefer to convey their ideas and messages visually by the fascinating and interactive style of them. Various scholars have written about the concepts of data visualization and why infographics have played a significant role in successful and effective visual communication. Research studies from a social psychological perspective imply that the information and data communicated through infographics are most likely to gain better comprehension and understanding as compared to other mediums. “A photo is worth a thousand words”, is a philosophy that points to the importance and usefulness of visual communication.

The method of creating and publishing infographics is called data visualization, information design, or information architecture. In human and computer interaction (HCI), infographics can boost user awareness by using graphics to strengthen the visual system's capacity to see trends (Lankow, Ritchie, & Crooks, 2012). Despite today's data overload, infographics help users grasp and digest knowledge from data easily. Effective infographics not only portray a message to the audience, but it can also build curiosity and drive individuals to read an article by attracting their attention to headlines and images.

Integrated Reporting (IR) is new to many market executives. It has not a long tradition or history, but many individuals are often puzzled between IR and corporate reporting (CR). Historically, CR was mainly a statistical report of financial statistics reported to the public. The key readers of CR were lenders,

mutual members, and banks. However, more and more research has demonstrated that the emphasis on financial results is only motivated by short-term financial performance, but long-term gains may be overlooked by managers. Communication between the organization and its owners is not enough. The key to IR is the development of value in the short, medium, and long term by detailed communication covering both financial and non-financial information (De Villiers, Rinaldi, & Unerman, 2014). It is an extension of CR by concentrating on conciseness, competitive significance, and future direction. IR has been developed to improve responsibility, management of resources, and integrity, as well as to increase the flow of knowledge and market openness that technology has introduced to the modern world.

Infographics can make a major difference to the IR by growing the engagement and awareness of the audience. Take, for example, a business summary page: when it is viewed as a plain body of text, there is a fair risk that the readers will skim over it if they read it at all. Nonetheless, showing this information in an enticing, visual manner, using symbols, callouts, and color, and thus instantly one can create a sense of excitement and understanding, where the most important detail is illuminated for your audience. Not only this will boost awareness and help communicate your main message to your customers, but it will also lead to improved clarity and meaningful brand interactions. Unfortunately, based on my experience, there is a lack of research into the role of infographics in Integrated Reporting and how infographics can promote the IR process. This paper has discussed the role of infographics in Integrated Reporting. This thesis is based on primary and secondary research to examine the use of infographics in Integrated Reporting. This includes finding the opinion of renowned business firms around the world as well as analysis of already available secondary data.

1.2 CONCEPTUALIZATION

Conceptualization is a method that determines the significance of the various key terminologies used in research (e.g. definitions of key terms) centered on prior research studies. The use of previous research studies for conceptualization provides a framework for the development of conceptualization variables related to the study's area. Analyzing a scholar paper, it is important to objectively understand how it has conceptualized and operationalized various key terms. It is usually considered important to describe the key terms used in research because it provides readers with a greater interpretation and clarification of the analysis being conducted. The interpretations of the primary terminologies used in the current analysis are given below.

1.2.1 VISUAL COMMUNICATION

It is defined as a sub-group of the communication domain that describes the transfer of meaning by visual means. Individuals employed in this area use illustrations and graphics to communicate visually with viewers, sometimes in an attempt to convince or inspire them (Ivins, 1969).

1.2.2 INFOGRAPHICS

“Infographics applies to graphical representations through which information is efficiently transmitted by visual ways (illustrations, graphs, maps, drawings) which may otherwise not be appropriate” (Meirelles, 2013).

1.2.3 STATIC INFOGRAPHICS

The printed form of infographics (magazine posters, diagrams, advertisements, etc.) or for digital use (blogs, etc.) or screen views with no animation or sound features are called static infographics (Meirelles, 2013).

1.2.4 MOTION INFOGRAPHICS

The animated form of infographics designed for showing moving graphics and media content on Vimeo, TV advertisements, Museum shows, etc., where all the components are typically in continuous movement and shape.

1.2.5 INTEGRATED REPORTING (IR)

“Integrated report is a concise communication about how an organization’s strategy, governance, performance, and prospects, in the context of its external environment, lead to the creation of value in the short, medium and long term”, says International Integrated Reporting Council (IIRC).

1.2.6 DATA VISUALIZATION

It is the representation of information and data that leads to the identification of numerous complex phenomena, patterns and connections that could be challenging to understand and identify with simple text and statistics-based presentations. Infographics represent the core factors of efficient data visualization to help justification and simple, easy, and effective data interpretations.

1.3 PROBLEM STATEMENT

Presently, one major technique of approaching a substantial quantity of information and data is through visual communication (Naparín & Saad, 2017). Infographics can convey information about the subject more effectively and quicker than pure text-based communication; nevertheless, the quality of visual communication depends on the development and purpose for which the infographics are used. Infographics are a form of visual communication that portrays detailed information effectively and simply, in the form of illustrations, diagrams, and charts. It is a technique where visual representations that combine data and detailed information are communicated with great accuracy. Infographics are counted as a fragment of visualization of information and data. It is an area of research that focuses on patterns and developments in abstract

datasets and can help the creation of infographics with true impact. The area of visualization incorporates ideas from computer technology, cognitive science, data mining, and graphic arts. It is important as the capacity to obtain, process, and handle data is growing exponentially.

Numerous research studies were conducted to explore the role of infographics in e-learning (Ruottinen, 2014), teaching (Hassan, 2016), journalism (Henry, Montero & Slobin, 2014), science classroom (Davidson, 2014) and health science (Scott, Fawkner, Oliver, & Murray, 2016). However, there are a very limited number of research studies conducted to find the role of infographics in Integrated Reporting. This study will discuss the role of infographics in Integrated Reporting from the perspective of world-leading business firms as well as through the analysis of already available secondary data. This thesis is the combination of primary and secondary research on how the use of infographics can aid the process of Integrated Reporting.

1.4 SIGNIFICANCE OF THE STUDY

Visual communication such as infographics is vital for effective professional communication. The aspiration behind the research inquiry is to explore the impact of infographics on Integrated Reporting from the perspective of world-leading business firms as well as through the analysis of already available secondary data. Researchers with communication as their area of expertise are trying to explore the diverse obstructions and correlate associated with effective visual communication of business firms. The study will be contributing to literature with the combination of primary and secondary research on the effects of infographics in Integrated Reporting.

The study of the role of infographics in Integrated Reporting from the perspective of world-leading business firms as well as through the analysis of already available secondary data can be a learning paradigm for business firms to design potential initiatives that will enhance the effectiveness of Integrated Reporting. The study's goal is to help business firms improve their visual communication and to develop effective communication strategies for Integrated

Reporting. The study will also provide guidelines to employers working on the visual communication skills of their employees.

1.5 PRACTICAL CONTRIBUTION

Since visual communication is considered an important tool for business accomplishments, we can culminate that studies examining the role of infographics in Integrated Reporting can result in important knowledge contribution for the business world and the associated individuals. The results of this study will assist business firms to validate their visual communication methodology in agreement with the requirements of clients. The study will also help business firms, who use infographics for Integrated Reporting. As the study is based on primary and secondary analysis, it will provide an effective way to explore and evaluate the role of infographics in <IR>. Infographics can make a major difference to the <IR> by growing the engagement and awareness of the audience.

1.6 THEORETICAL CONTRIBUTION

This study is unique in itself as it will be dealing with the role of infographics in Integrated Reporting from the perspective of world-leading business firms as well as through the analysis of already available secondary data. Over the years researchers have explored the role of infographics and its impact on the communication patterns of various fields, but this research-based study will investigate and evaluate the impact of infographics in the business world especially its role in Integrated Reporting.

1.7 RESEARCH OBJECTIVES & QUESTIONS

The two major objectives of this thesis are:

(a) to explore the role of infographics in Integrated Reporting,

(b) to evaluate the impact created by infographics in the business world.

To attain the above objectives, this study aimed to establish the responses to the below research questions:

1. What is the role of infographics in Integrated Reporting?
2. How infographics are impacting the communication patterns of business firms around the world?

1.8 SCOPE OF THE STUDY

This research study will be examining the role of infographics in <IR> and will be additionally investigating the impact of infographics on the communication patterns of leading business firms from around the world. Numerous research studies were conducted in the past to explore the role of infographics in e-learning (Ruottinen, 2014), teaching (Hassan, 2016), journalism (Henry, Montero & Slobin, 2014), science classroom (Davidson, 2014) and health science (Scott et al., 2016). This study will be among the very limited research studies that will prove beneficial for business firms and people associated with Integrated Reporting.

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

Infographics convey details in a small space and effective style. They will easily pass on the information and keep readers reading it (Siricharoen, 2013). Since our minds have the potential to quickly make sense of these visual signals, displaying data in an infographic style makes it much easier to give the viewers more insight into the figures. Infographics allow one to grasp broader data sets in a manner that our short-term memory cannot handle in normal situations. An average person can recall very limited digits; therefore, infographics are crucial and important for business organizations and their stakeholders.

The main objective of this thesis was to check whether the Integrated Reporting done through the use of infographics produces superior results as compared to text style in terms of clients' convenience and understanding. The most basic kinds of infographics were existed even decades ago, in the form of diagrams, maps, or line drawings. They can be found in the newspapers of the 1970s such as the New York Times edition of Sunday. Although, in the current era, the ever-increasing innovations in the field of digital and social media have brought about a different and unique type of infographics. According to Rouget (2011), the infographics of the latest generation emphasize improved visual quality, layout, and graphics which are now usable for CSS3 and HTML 5.

Although visualization or graphics-based representation of data is not a new concept, today's infographics present statistical data and information in a way that makes the information easy to grasp and retain the attention of the audience efficiently. Recently, the corporate world has switched to infographics to strengthen its communication patterns internally and externally. Brand awareness and its marketing are the two common applications of infographics; nevertheless, they are also being used as information conveying tools during workshops, seminars, workplace collaboration, and annual updates to clients (Khazan, 2012; Smiciklas, 2012).

Given the severely limited research studies on infographics as a tool for visual communication in the corporate world, this study aimed to perform a combination of primary and secondary analysis. As little has been published about the use of infographics as a communication medium, this study is the first to explore the role of infographics in <IR> through primary and secondary research. Although the growth in infographics is a big move for visuals communication, the usage of symbols and pictures to convey information has a long tradition. Nowadays, infographics have not only helped in developing and transferring information and data (West, 2012), it has also provided the convenience and simplicity of information that will help overcome the overload of data and information. The process will help in further differentiating between important and useless information.

2.2 HISTORICAL PERSPECTIVE

Communication by visual means, or communicating by images, is among the oldest way of communication. The sharing of knowledge amongst humans has its presence in the form of cave drawings date back to nearly 40,000 years (Gray, 1997). Symbols and signs have a superficial similarity to what they portray and were the main medium of written correspondence until around 10,000 years back. According to Schmandt-Besserat (1980), the first visual communication method in which signs have no direct similarity to what they portray arose with the need for a symbol that could be used for the sale of commodities and tax collection.

The modern era has enabled visual engagement more dominant in our society and place of work directly (Soffer & Eshet-Alkalai, 2009). Modern technologies have also promoted the development and dissemination of digital graphics. Throughout the late 1980s and early 1990s, the development of visual displays expanded with the rise of individual computer systems and with the emergence of laser printers, since these machines have made it possible for users to have greater control over the process of communication (Kostelnik, 1994). Digital

technology has implicitly triggered the use of visual Communications since it has provided modern connection tools that were simple and quick to access.

Cognitive research-based studies show that visually displayed data and information is easiest to understand and learn, as it uses a different transmission delivery path as compared to textual information (William, 2013).

According to the study conducted by William (2013), there are two ways in which messages are being transmitted cognitively: a rational framework used during the text-based transmission of data or information and an intuitive framework used during the visual-based transmission of data and information.

According to Graesser et al. (1997), interpreting text involves the conversion of symbols to terms, sentences, and structure of sentences and the creation of a conceptual model of narration, while the information or data conveyed through visual communication is focused on graphical elements that correlate explicitly to each other and it is comparatively easy to understand and comprehend.

The compatibility of relationships between business, stakeholders, and the community has always been under unprecedented strain. Corporations are entangled in brief-term and downward-looking reporting cycles, followed by inconsistent strategies. As a result, reports are becoming too prolonged and too nuanced without presenting a cohesive picture. Hence, businesses are dealing with a significant burden of regulation, investors are not getting the right details of the information they need, and capital markets are struggling with short-termism, undue emphasis on financial data and lack of trust in certain aspects (Eccles, Krzus, & Ribot, 2015). There is a smarter way forward, based on a deeper interaction between businesses and investors, as thousands of businesses globally are already adopting this new approach called Integrated Reporting < IR > (Eccles et al., 2015). < IR > draws on what we already have instead of trying to produce something new. Statistics and data from globe-leading academics indicate that it leads to economic security and sustainability. Integrated Reporting < IR > has lately been encouraged as a solution to monetary reporting deficiencies (IIRC, 2013). There is a great deal of interest in < IR > and a fairly large number of scientific papers are presented every year at prominent accounting conferences (like the European Accounting Association

(EAA), and the Critical Perspectives on Accounting (CPA) conferences) and highly reputed scientific journals are publishing a large number of scholarly articles with such a vibrant discussion evolving around < IR > (Baldo & Idowu, 2019).

Unlike most of the sustainability reporting, that are released independently from the annual financial reports, < IR > is an unaccompanied document that explains and illustrates both monetary and non- monetary information in a comprehensive fashion (Baldo & Idowu, 2019). As stated by the International Integrated Reporting Council (IIRC), < IR > helps a company in demonstrating its goal, leadership, productivity, and strategy of their enterprise, taking into account their external climate and contributes to the growth of value in the short, medium and long term.

Graphical representations of business models are becoming increasingly prevalent in business reporting. This is attributable to the shift towards Integrated Reporting as visualization promotes communication and collaboration with stakeholders. This facilitates opinion-forming mechanisms within the organization at a deeper level. Integrated Reporting (IR), developed by the IIRC, is the overarching frontier of corporate communication and can provide insight on policy, threats, efficiency, governance, and future outlook in a single document (IIRC, 2013).

Data visualizations have been introduced in the 21st century across widely used computational systems, like Geographic Information Systems (GIS), desktop, and website publishing. The recognition and understanding of infographics (IG) within the context of < IR > is a comparatively new and growing field of research. With today's knowledge overload, IG helps readers grasp and interpret information efficiently and easily. IG is an incredibly medium of communication of information (Fogel, 2013; Heer & Segel, 2010). They are classified as visual representations of information and data (Lankow et al., 2012). Infographics (IG) serve more than just an artistic expression; they are interactive representations intended to convey information that ranges from concepts such as the appealing layout of statistics to sophisticated immersive data animations (Lester & Ross, 2011).

Visual information, in common, and IG, in specific, are powerful and effective means of communicating information (Trumbo, 2000). Bloomfield and Doolin (2013) demonstrated how the visual language of the New Zealand advocacy group was a key element of the popular social movement's efforts to reduce genetically modified food across the country. Nicholson-Cole and O'Neill (2009) have shown how powerful images of the global climate change will serve to draw human attention to the problem.

Keeping in mind the basic principles, Infographics can be an effective visual method for transmitting information and fostering fundamental understanding (Oetting, 2015; Smiciklas, 2012). The more vivid the input the more likely the image will be understood and remembered, making infographics a strong learning resource. This idea of the effectiveness of infographics is backed by many learning and communication theories. For example, Nelson's picture superiority theory explains how users learn things more quickly by seeing images than by reading words because people's brains are essentially hard-wired to imagery. Moreover, Pavio's (1971) dual coding theory assumes that when humans perceive a picture, they encrypt information with both textual and visual codes, triggering different neural pathways to help memory.

While infographics are undergoing an increase in popularity (Byrne & Cook, 2013), they are not strictly modern inventions (Lankow et al., 2012). Infographics stretch back to early Cro-Magnon Man Charcoal illustrations and native American sculptures, created 20,000 to 10,000 years ago, and were used as insightful communication systems or educational guides (Byrne & Cook, 2013; Cook, 2013; Ford, 1993; Lester & Ross, 2011).

Research has already shown that users are more likely to pay attention to maps or other visual symbols without referring to footnotes or other assistance that may have been available or accessible (Swires-Hennessy, 2014). Although, viewers frequently reject multiplex visuals rather than muddle around their perception to make some sense of them (Evergreen & Metzner, 2013). In other terms, as graphics are becoming more commonly available, developers need to understand how to present information clearly and simply. Controversies regarding visual presentations are now loaded with new questions, and users

have issues close to those of the past — which include, how infographics do not provide a clear image of the information they are meant to represent. Since users are more willing to spend their time and analyzing better-designed data visualizations (Evergreen & Metzner, 2013), researchers should consider better design development principles to optimize the simplicity and clarity of their visual presentations.

Additionally, certain aspects, such as color, also influence how infographics are perceived. Designers are advised against using color as the primary means of presenting numerical information, as users must constantly re-explore graph legends and thus become more likely to be confused. (Hoeffner & Shah, 2002). The definition of color differs by the audience for example, green means "benefit" for financial managers, but "infected" for healthcare professionals. The yellow color may be joyful in small amounts, but it also indicates cowardice to Western audiences (Evergreen & Metzner, 2013). Color palettes should always be carefully examined to prevent accidentally sending the wrong signal to the target audience.

From an educational point of view, infographics promote focus, reduce cognitive load, generate esthetically attractive items, trigger or build schema utilizing objects, and inspire learners (Clark & Lyons, 2010). Effective infographics may be used as work guides, advance guides, mind charts, topic abstracts, and research resources in an educational setting. Good infographics explain the meaning or basics of a message without allowing a person to read the relevant text extensively (Educause Education Initiative, 2013; Ware, 2012); the user or viewer can, at a glance, evaluate the topic of the infographics. Infographics are most often used where tables or text cannot express a clear and complete meaning by themselves (see Centers for Disease Control and Prevention, 2012).

Thus, it can be concluded that the use of infographics has been widely studied in the context of education, health, and media, but there is a dearth of literature about the use of infographics in Integrated Reporting. This research study will be among the very few studies that will try to fill this gap and will provide a significant contribution for future researches.

2.3 CONTEXT

The primary focus of the study is to explore the role of infographics in Integrated Reporting in the context of the corporate or business world setting. Primarily, this study has explored the role of infographics in Integrated Reporting through primary and secondary research and it has also explored the role of infographics in impacting the communication patterns of business firms around the world.

CHAPTER THREE: METHODOLOGY

This study was designed to explore the role of infographics in Integrated Reporting. The study was organized around the combination of primary and secondary research. Data was collected and analyzed from three business firms in the world through email interviews to know their opinions about the use of infographics in Integrated Reporting. Business firms were selected through convenience sampling. Data was also collected and analyzed from already available secondary data sources.

3.1 KNOWLEDGE CLAIM

Knowledge claim indicates how a researcher based on his/her idea might learn and discover through his/her research work. This process is also called philosophical assumption or ontology (Crotty, 1998). Research scholars make claims about the existence of knowledge (ontology), how they learn that particular knowledge (epistemology), what beliefs it includes (axiology), how research scholars write about that knowledge (rhetoric), and how they tested that knowledge (methodology) (Creswell, 1994). There are mainly four schools of thought including constructivism, advocacy/participatory, and pragmatism, and post-positivism.

3.1.1 CONSTRUCTIVISM

According to constructivism, people want to know about the society in which they live and work. They establish subjective interpretations and meanings of their experiences aimed at objects or events. These interpretations and meanings are diverse and numerous, prompting the researcher to look at the complexities of the viewpoints rather than restricting the meanings into only a few ideas. The purpose of the study, therefore, was to focus as much as possible on the opinions of the respondents about the situation being studied.

3.2 RESEARCH APPROACH

The composition of research can be based on two different viewpoints, either quantitative or qualitative, or mixed methods. Mix methods technique

refers to a research method that promotes the systemic combination of qualitative and quantitative methods within a single inquiry. According to Johnson et al. (2003), mix methods technique is a type of research in which the investigator incorporates or blends quantitative and qualitative analysis methods, processes, strategies, concepts, and vocabulary into one research technique. In any research study, the research approaches should be used as guidelines to learn how to answer a problem or to obtain knowledge. The main distinction between the two methods is that the quantitative approach translates information into numbers while the qualitative approach provides researchers with greater space for interpretation (Holme & Solvang, 1997). According to Buckley (2007), a methodology is a technique or architectural style through which the investigator defines a strategy to solve a problem.

This research study has adopted a qualitative approach for the interviews section and has focused on intense research and the creation of results that involve hours of study and cannot be done exclusively by software. According to Berg and Lune (2009), the qualitative approach relies on novel solutions to gather and analyze qualitative data. He has also mentioned that qualitative research refers to the context, principles, meanings, attributes, diagrams, icons, and explanations of things, whereas quantitative research, on the other hand, refers to counts and measures of things (Berg & Lune, 2009). The purpose of the qualitative approach was to consider and reflect people's experiences and behavior as they observe, interact, and live through circumstances and situations.

3.2.1 DATA COLLECTION

The information and data collected about a particular topic, can either be primary or secondary (Ghauri et al., 1995). The primary data is directly collected by the researcher through interviews, questionnaires, etc., whereas the secondary data points to the information and data such as books, records, and studies produced by previous scholars, and organizations in the past (Bryman & Bell, 2007). The secondary data and information used in this thesis have been

critically analyzed and gathered from well-reputed journal articles, books, credible internet sources, and organization reports to extract an accurate explanation of the use of infographics in Integrated Reporting.

Several approaches have been developed to provide an in-depth and thorough analysis of the problems by their written presentation. The most prominent forms are interviews and observation as the objective of this thesis was to obtain a detailed image of the role of infographics in Integrated Reporting. Interviews were conducted through email for the primary research, whereas secondary data was gathered and analyzed from various reputed sources. Primary research was used in the shape of qualitative email interviews to obtain data through open-ended questions from each firm respectively.

3.2.2 INTERVIEWING

Due to the limited number of research studies on this topic, it was important to gather as much relevant data and information as possible. Data was collected from business firms through email interviews to establish a better understanding of the role of infographics in Integrated Reporting. The decision was made to use qualitative interviews to obtain primary information and data. This method of interviews is quite distinct in certain ways from quantitative analysis, for example, the interviews used in this method are usually often less formal and less structured (Bryman & Bell, 2007). According to Bell & Bryman (2007), this method of conducting interviews is generally considered to be flexible; the interviewer can adjust questions of the interview according to the answers of the interviewee, new questions could well arise as a result of this process and the sequence of questions can be updated.

Interviewing is the most popular method for data gathering in qualitative studies. According to Oakley (1998), interviews are a kind of framework in which norms and procedures are not only reported but often applied, discussed, and improved. As research-based interviews require structure, almost all of the qualitative study interviews are either semi-structured or lightly structured. Qualitative research interviews are usually recommended for long-term field research and it empowers participants to articulate themselves in their way, with

a limited grip on the answers of the participants. Data was collected through semi-structured interviews.

3.2.3 SEMI-STRUCTURED INTERVIEWS

It is a form of an interview in which only a few preset questions are posed by the interviewer, while most of the questions are not prepared in advance. During semi-structured interactions, certain topics and questions are set in advance by the researcher, and all applicants and respondents are asked those questions, while other questions emerge naturally during a free-flowing discussion with the respondents. Such interviews provide an unbiased evaluation of candidates, but at the same time have a more contextual and random approach that enables the discovery of interesting points.

3.2.4 POPULATION

It is usually a wide number of people or items that are the central focus of a research study. Research work is being conducted for the good of the general public. However, because of the broad range of population, studies are also unable to study every person in each population because it is very costly and time-consuming. That is why scientists are depending on sampling methods. The population of this study was the experts from the business world, who are using infographics in Integrated Reporting in their organizations.

3.2.5 SAMPLE

It is defined as the "subset of the population". The definition of the sample is focused on the limitation of the study to include all people from a specific population. The sample should be representative of the population and it should be of a size that can be analyzed statistically. The sample size is usually large in the case of quantitative studies, whereas in the case of qualitative studies the sample size is comparatively small. The respondents of

this study are three business firms who were familiar with the concept and are practicing the use of infographics in Integrated Reporting.

3.2.5.1 PRINCIPLES BEHIND CHOOSING THE GIVEN FIRMS

1. To best reap the fruits from Integrated Reporting, large firms especially multinational companies have relied on Infographics for presentation purpose.
2. The reporting may be towards both internal as well as external stakeholders.
3. Since, large enterprises have complex businesses, the best way for them to convey historical and future prospects is via graphs and charts for better decision-making mechanism.
4. The underlying principle behind choosing these firms was due to vast usage for infographics for reporting and decision making in their businesses.

3.2.5.2 METHODOLOGY ADOPTED FOR CHOOSING FIRMS

1. I have selected large companies which require periodic reporting towards stakeholder concerns and towards decision making. In section 4.2.2 (Selected firms) firms are ordered from the smaller to the bigger as their Revenues numbers suggest.
2. These companies were selected from based on active listing status with NASDAQ, NSE, CAC and other leading stock exchanges.
3. Also, special attention was paid towards entities which have larger geographical reach and presence. This would cover various national compliance requirements.
4. Thereafter, the website was searched on web search engine based on name of the firm.
5. On LinkedIn Navigator, key employees from these entities were searched for and also email addresses obtained from LinkedIn prospecting tools.

6. Based on publicly available information about these entities, appendix A at the end of my thesis was also noted to confirm that these entities would require infographics towards Integrated Reporting.

3.2.6 THE RESPONDENTS

The group of the population chosen for this study is based on a purposive method, which implies that the respondents (firms) were selected based on the purpose of the study (Bryman & Bell, 2007). The firms were selected through the results of contacts made through official email addresses of organizations obtained from their official websites or LinkedIn profiles. After the identification of organizations, the next step was to select the best suitable individuals to be contacted. The significance of conducting interviews of the right individual plays a key role in the process, as it reduces the uncertainty of the misleading information due to a lack of proper information that can reduce the precision of the data. All the respondents selected for email interviews were directly relevant to the topic of the use of infographics in Integrated Reporting. Respondents are from Enel, Gold Fields and Novo Nordisk.

3.2.7 RELATIONSHIP BETWEEN POPULATION AND SAMPLE

The key purpose of drawing a sample from a population is to encourage researchers to evaluate persons in the community in such a way that the findings of their analysis can be used to derive results that would extend to this whole community. The population of the study provides a sample to the researcher and in turn receives the general results in the shape of findings of the population.

3.3 RELIABILITY AND VALIDITY

The concepts of validity and reliability must be considered while performing qualitative research as it helps to assess the impartiality of the

study. Reliability and validity are seen as two separate measuring instruments that indicate the degree of trustworthiness and accuracy of the research study. Reliability refers to the level in which the evaluation method provides reliable and accurate outcomes, whereas internal consistency reliability refers to the test used to determine the extent to which two test instruments that evaluate the same concept produces identical results (Bryman & Bell, 2007). Validity is how accurately the assessment assesses what it is supposed to assess. In this study, all email interviews were conducted after proper approval from the interviewees for the meanings derived from the text of the interviews. This was done to improve the quality and to reduce the researcher driven interpretation of the interview materials.

3.4 SAMPLING TECHNIQUE

According to Mason (2002), Sampling is a crucial component of the qualitative research method, which has received little attention in methodological journals and books than its primacy in the process justifies.

Researches that are based on interviews and is connected with an idiographic purpose usually requires a sample size that is reasonably limited to provide a presence within the study and allows an extensive review of each case.

In interview-based studies, there are usually 3 to 16 respondents for a single inquiry, with the bottom end of the scale proposed for undergraduate studies, and the upper end of the scale is used for large-scale projects (Smith, Flowers, & Larkin, 2009). According to Robinson and Smith, the sample size provides space for the development of cross-case generalizations, thus stopping the researcher from becoming bogged down in results and enabling people within the study to be given a specified identification, rather than being subjugated into an unnamed part of a greater picture. The respondents of this study were selected through purposive sampling technique.

3.4.1 PURPOSIVE SAMPLING TECHNIQUE

The process of data collection is essential to research studies since data is meant to lead to a deeper understanding and explanation of the theoretical

framework. It is therefore crucial that the selection of the method of obtaining data, from which the data would be obtained, be carried out with sound judgment, particularly because no quality of data analysis will make up for incorrectly obtained data.

The purposive sampling method, which is also referred to as judgment sampling, is the conscious preference of the sample based on the characteristics exhibited by the respondents of the sample. Purposive sampling is a non-random strategy that does not involve any fundamental theories or a fixed number of respondents. Simply stated, the researcher determines the requirements of the study and start locating individuals who can provide details based on their expertise or experience. It includes recognizing and recruiting people or groups of people that are knowledgeable and most well informed regarding the topic of concern. Apart from the expertise and experience of the respondents, the researchers note the significance of respondents' accessibility, desire to engage in the study, and their capacity to share viewpoints in a coherent, concise, and thoughtful way.

3.5 QUALITATIVE DATA ANALYSIS (QDA)

It is the collection of techniques through which we analyze the qualitative data gathered in a form of description, perception, or interpretation of the persons and circumstances we are examining. QDA is generally focused on an interpretative approach. The aim is to explore the substantive and conceptual nature of qualitative data. The interviews of the respondents of this study were analyzed through thematic analysis.

3.6 THEMATIC ANALYSIS

Braun and Clarke have defined thematic analysis as the active process that involves going back and forth through the collected data, the structured data sequences that you are processing, and the interpretation of the results

that you are developing (Braun & Clarke, 2006). Thematic analysis varies from many other approaches that aim to explain trends across qualitative content – such as grounded theory and thematic decomposition analysis. Interviews of the respondents were analyzed through the following procedure.

3.6.1 FAMILIARIZATION

During the first step, I familiarized myself with the data of the interviews. As the interviews were in the shape of email replies, there was no direct need for the transcription process. According to Lapadat this mechanism of converting flowing and fluid oral language communicated in a specific sense into a static mode of expression (written language) is essential for the management and organization of information, because only written words can be handled, in another way, categorized, compiled, analyzed, assessed and cited (Lapadat, 2000).

3.6.2 GENERATING INITIAL CODES

As interviews were already in a transcribed form, initial codes were generated. A code is a short description of what is stated in the conversation, so every time you find anything important in your records, you create code. The process of coding is a representation and not an interpretation.

3.6.3 SEARCHING FOR THEMES

After the identification of codes from interviews, themes were identified, which involved interpretation of the codes of the data. Themes capture something significant about the dataset about the study objectives, which reflects a degree of patterned responses. It is always considered better by the research community to generate 6-10 broader themes. These broader themes are used to summarize the main findings of the research study. It is important to note that similar or overlapping themes can be put in a single category and can be explained with the support of relevant content.

3.6.4 REVIEWING THEMES

According to Braun and Clarke, data inside themes must align in a meaningful way, whereas there ought to be simple and recognizable differences

among various themes. During this phase of the study, the themes identified during the previous phase were reviewed and refined. This step is considered as one of the most crucial and important steps of thematic analysis as aligned with themes is considered very crucial for the true interpretation of the research findings.

3.6.5 DEFINING AND NAMING THEMES

This phase is also considered as one of the key phases of thematic analysis. Names of the themes should represent the true meaning of the content under their belt. Therefore, it is important to assign meaningful and relevant names to the various themes of the research study. During this phase of the study, the researcher identifies the stories and how they relate to the themes. At this level of the study, the researcher will be able to say a cohesive tale about the topic, maybe with some sub-themes. During the phase of the study, the themes identified during the previous steps were described and named. In Braun and Clarke's words, this phase of study "defines the essence that each theme is about" (Braun & Clarke, 2006, p. 13). For each theme, a comprehensive and detailed analysis was written.

3.7 PRESENTING RESULTS

The findings of this thesis are presented in two separate sections. The first section of results chapter contains findings of the secondary data, whereas the second part is used to present meaningful themes of the primary research. The final analysis and report must offer a clear, simple, logical, and insightful account of the narrative the data say – inside and throughout various themes. In the current study, which is exploring the role of infographics in Integrated Reporting a complete, clear, and a meaningful report was written. The data and information regarding the use of infographics in Integrated Reporting were collected and analyzed through primary and secondary research. The findings are discussed below to determine the most significant findings. Besides, some

conclusions were also developed based on the outcomes of the research questions of the study.

CHAPTER FOUR: RESULTS

4.1 SECONDARY DATA FINDINGS

The secondary data and information used in this thesis have been critically analyzed and gathered from well-reputed journal articles, books, credible internet sources, and organization reports to extract an accurate explanation of the use of infographics in Integrated Reporting. This section would include a summary of recent studies related to the research issue.

Infographics can make a major difference to the Integrated Reporting by growing the engagement and understanding of the stakeholders. Consider, for example, a company's main summary page: when it is viewed as a simple textual body, there is a fair risk that the readers would skim through it if anyone read it at all. That being said, presenting the same main page in an appealing, visual fashion, utilizing symbols, callouts, and color can instantly build a feeling of comprehension and simplicity, where the most relevant data is emphasized for a better understanding of the stakeholders (Murphy, 2018). In integrated reports, infographics are usually used to convey value creation, business model, stakeholder engagement overview, performance highlights, input, output, risk management, and revenue.

4.1.1 REPRESENTATION OF VALUE CREATION THROUGH INFOGRAPHICS

Value creation is the major objective of any corporate organization. Generating value for consumers can help in selling goods and services, thus creating value for investors and clients can improve the stock prices and can ultimately ensure the potential capital to fund new activities (Tempini, 2017). This rather complicated problem of value creation is mostly portrayed in infographics – the IIRC presents the simple mechanism of value creation as outlined on the IIRC website. Mostly based on this pattern, most businesses define their value creation in infographics consisting of 2 or 4 printed report pages. Whereas web publications provide modern and immersive approaches

to turn the method into clearly interpreted and informative infographics. Given below are some of the examples of how international firms are using infographics to present their value creation in annual integrated reports.

The 2019 Gold Fields integrated report uses a layout that includes various kinds of infographics that convey a clear image of the information they are meant to be conveyed. Figure 1 shows an infographics-based diagram that provides details of their focus on value creation in the host communities. It is the simplest type of infographic that has used simple shapes to communicate the message accurately and conveniently. Infographics are an effective way to make the reader excited about the content, encouraging her/him to understand the given data and information more easily. Figure 1 represents that it is vital to promote simple infographics because sometimes organizations can generate unnecessarily complex or needlessly abstract portrayal of their company reports that can make the comprehension more difficult for the stakeholders (Smiciklas, 2012).



FIGURE 1: GOLD FIELDS, INTEGRATED REPORT 2019, P.80



FIGURE 2: GOLD FIELDS, INTEGRATED REPORT 2014, P. 10-11

The simplicity of infographics is another important factor for effective and persuasive communication. As we can see, Gold Fields has used more simplistic design in its 2019 annual integrated report as compared to its 2014 annual integrated reports. While it is important to use the latest graphics in the shape of various icons, diagrams, shapes, it is also crucial to make it simple and easy to understand. Extra complex designs can lead to the creation of numerous complex phenomena, patterns, and connections that could be difficult to understand and identify.

Infographics are also largely used in integrated reports by IT services providers throughout the world. Figure 3 shows the well-connected and explained value creation diagram based on infographics published in the annual integrated report of TIS INTEC Group in 2019. The TIS INTEC Group is a leading provider of IT services in Japan, with some 20,000 employees groupwide. The diagram is divided into three main sections. The left side section includes TIS INTEC Group management resources including a diverse workforce, high technological capabilities, broad customer base, extensive service menu, and solid financial position. The right section of the corporate group value creation diagram includes the value provided to the society. The

section has separately mentioned the value provided to shareholders, investors, clients, business partners, employees, and as an entire community. Whereas the mid-section contains more comprehensive graphics used to explain group philosophy and business activities.

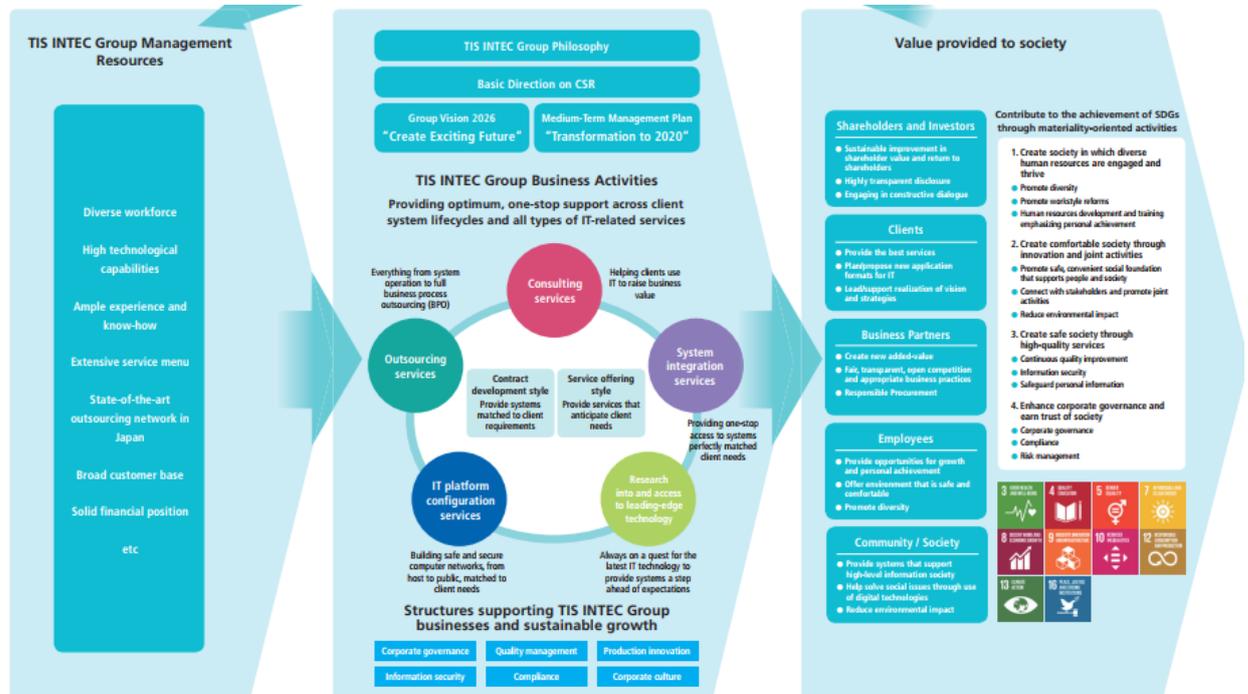


FIGURE 3:TIS INTEC GROUP, INTEGRATED REPORT 2019, P. 10

In the below figure (4), Mitsubishi Corporation has communicated the process of value creation to its clients and stakeholders through a combination of text and infographics. The infographics contain mostly circle based light color graphics with a combination of minimum text. The corporation has also utilized shaded pictures at the background of the infographics to make it more appealing.



FIGURE 4: MITSUBISHI CORPORATION, INTEGRATED REPORT 2019, P. 30-31

4.1.2 REPRESENTATION OF RISK MANAGEMENT THROUGH INFOGRAPHICS

Risk management in businesses is a branch that is used to assess the market challenges arising in the presence of any alteration in company practices, procedures, and processes. It defines, prioritizes, and manages uncertainties to reduce damages for unexpected situations by keeping an eye on them (Sadgrove, 2016). Integrated reporting takes a wider approach to opportunity and risk management than standard structured processes. As a result, a technique that involves the detection and reduction of threats toward the coordinated reporting of six capitals has a significant effect on results. Furthermore, this process also affects the reduction of the difference between its market and inherent values. Keeping a check over-reporting and communication of information on risk control may further improve value production. Institutionally, it is important that the company recognizes and is experienced with existing risks in the market and that the related regulations are strictly applied. This method should be supervised by the management board and the risk management Committee.

Figure 5 shows an infographics of risk management of Mitsubishi Corporation published in their 2015 annual integrated report. The risk management infographics show the relation between Mitsubishi Corporation assets, comparison of risk against management capability, and risk-return by using simple shapes of lines, arrows, boxes, symbols, and other graphics. Thus, by using simple infographics and very limited text Mitsubishi Corporation has presented a complex and mostly theoretical risk management content in an easy to understand visual language. This cycle of recognizing, evaluating, and monitoring the risks to the resources and profits of an organization are presented in the shape of infographics by corporations around the world.

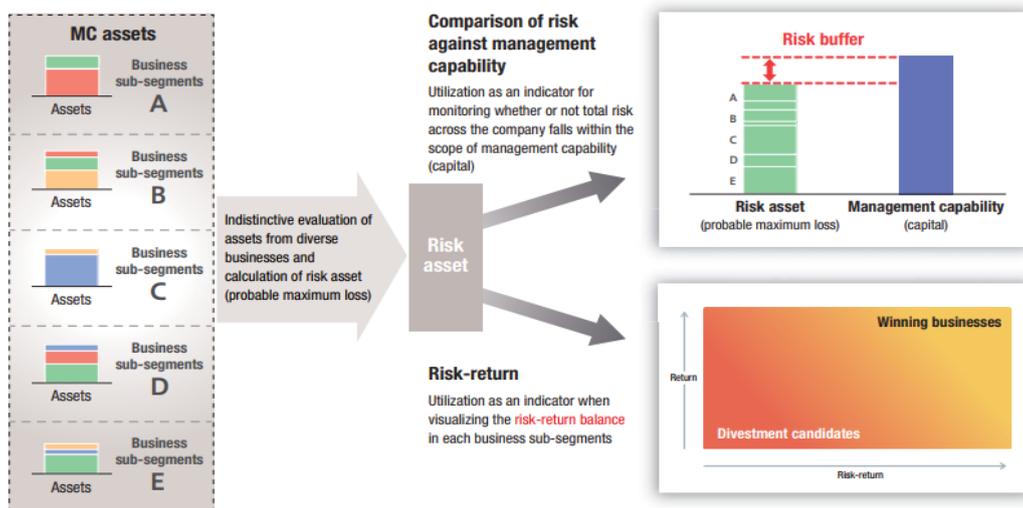


FIGURE 5: MITSUBISHI CORPORATION, INTEGRATED REPORT 2015, P. 36

The business and its activities are not static, and therefore the condition of the risk evolves all the time. Identified risk factors may be regulated to spot a possible rising trend and its implications. New major risk factors may also occur over time. Identifying such factors is important to track improvements in the network, consumer requirements, technologies, partners, methods, and competitors and to keep updating the risk analysis accordingly (Hallikas, Karvonen, Pulkkinen, Virolainen, & Tuominen, 2004). Thus, it is very crucial to explain the concept and process of risk management to stakeholders. Effective

use of infographics can serve the latest trend in the risk management world. The presentation of the risk management process in infographics leaves no need for stakeholders to spend hours in reading lengthy and boring texts since corporations usually summarized their process of risk management into understandable and attractive infographics.

Asset-Liability and Risk Management System Overview

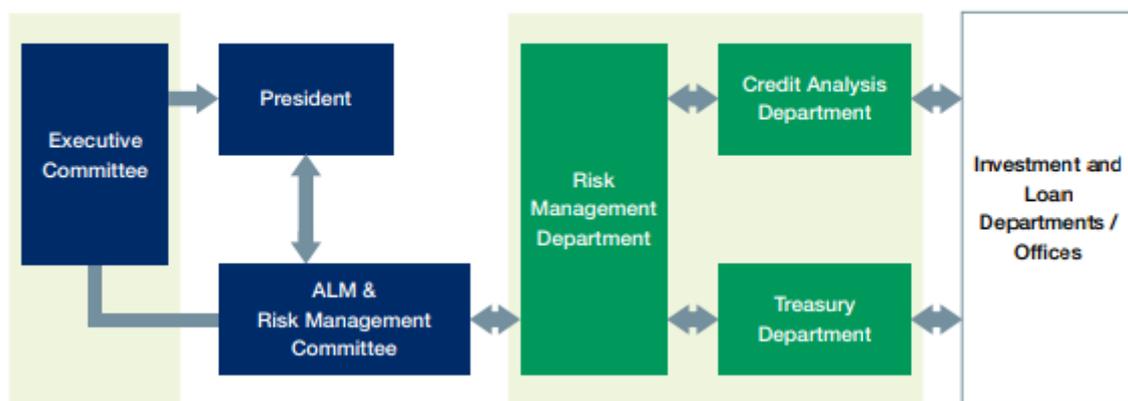


FIGURE 6:DEVELOPMENT BANK OF JAPAN, INTEGRATED REPORT 2019, P. 71

Development Bank of Japan has used infographics throughout its annual integrated report 2019 to communicate their value creation process, business history, performance, and risk management overview. As can be seen in figure 6, the Development Bank of Japan has used the most simplistic infographics with a combination of text to visually communicate their asset-liability and risk management system overview. Although in their integrated report, they have simultaneously explained the process in detail, the use of infographics has visually communicated their risk management process effectively.

The use of infographics sometimes cannot itself alone explain the process in detail, but it is more likely that visual presentation and connection of different parts of risk management process make it easier for clients to understand in a short period. Thus, it can be concluded that the use of infographics with the combination of limited text to visually communicate the process of risk management and the associated process is appropriate and

sufficient for a deeper analysis of all risks. It is also important to note that the use of different colors in infographics also plays a vital role in the process of interpretation of different concepts.



FIGURE 7:HULAMIN, INTEGRATED REPORT 2018

The above risk management framework was published in the 2018 annual integrated report of HulamIn. The framework in the shape of infographics provides the ground structure to implement a consistent, efficient, and cost-effective approach for identifying, assessing, and responding to major risks that may negatively influence the objectives and goals of HulamIn. The risk management framework of the company is also available on its official website. People can access the framework anytime from all around the world. The interactive infographics based online risk management framework provide more opportunities to understand and identify possible risks and their prevention measures associated with the performance of the business firm or corporation.

4.1.3 REPRESENTATION OF BUSINESS MODEL THROUGH INFOGRAPHICS

A business model is the corporation's strategy to make a profit. It describes goods or services that the company offers, the target audience of goods or services, and costs. In particular, a new company in growth must have a business plan, to draw funding, and to inspire their management and employees. A clear explanation of business model would offer a framework for describing any part of the company activities such as communication with suppliers, the products on which it relies, the procedures it undergoes, the products it generates, and the consumers it serves.

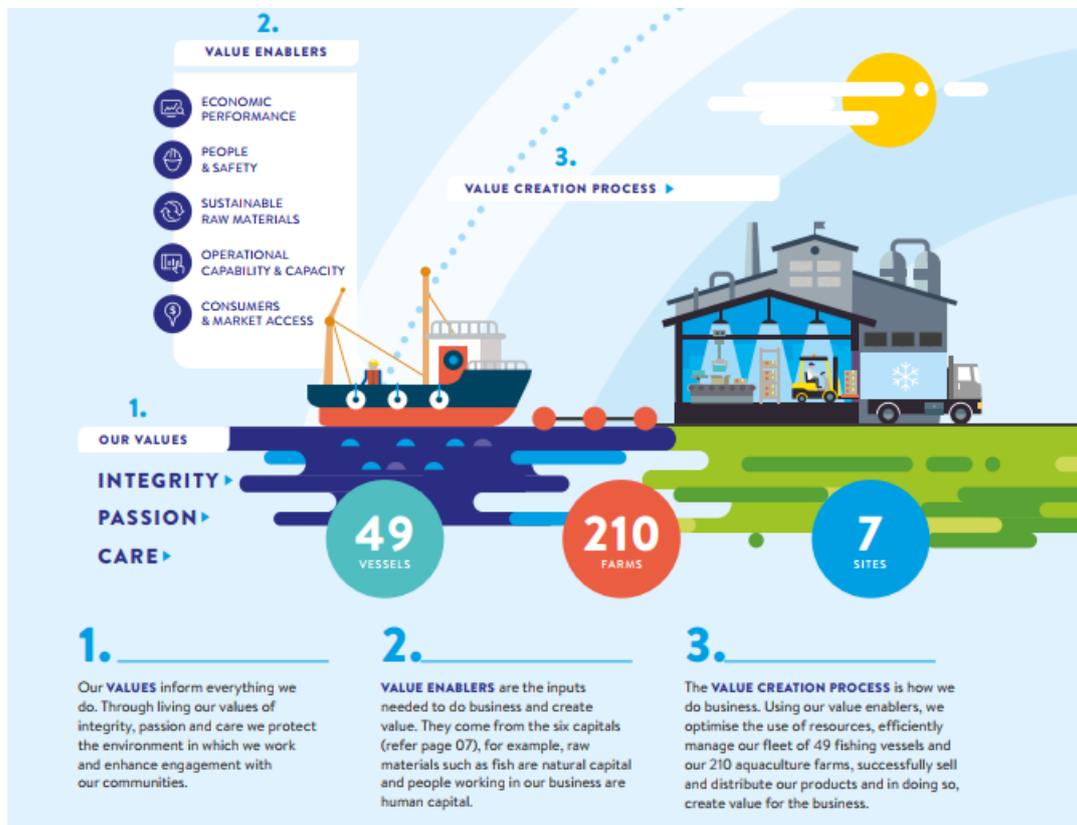


FIGURE 8: SANFORD, ANNUAL REPORT 2015, P. 12

Developed companies also need to review and revise their operating strategies, otherwise, they will struggle to predict potential developments and obstacles. Investors continue to analyze and assess the operating strategies

(business models) of businesses that are of value to them (Amit, Massa, & Zott, 2011). Figure 8 shows a sub-section of the business model of Sanford published in its annual report of 2015. The infographics-based business model shows a colorful illustration that incorporates a convincing explanation, — coupled with a rational narrative flow, of what the associated images show.

Another important use of infographics is the breakdown of their annual integrated reports in various segments and uploaded on various sections of their official websites. This process makes it easier for the stakeholders to see the relevant information. Apart from the breakdown of the integrated report, many companies have introduced the function of animation to their online integration report, which further makes it easier to understand for the stakeholders. Figure 9 is an animated infographic available on the official website of the chemicals company Clariant AG.

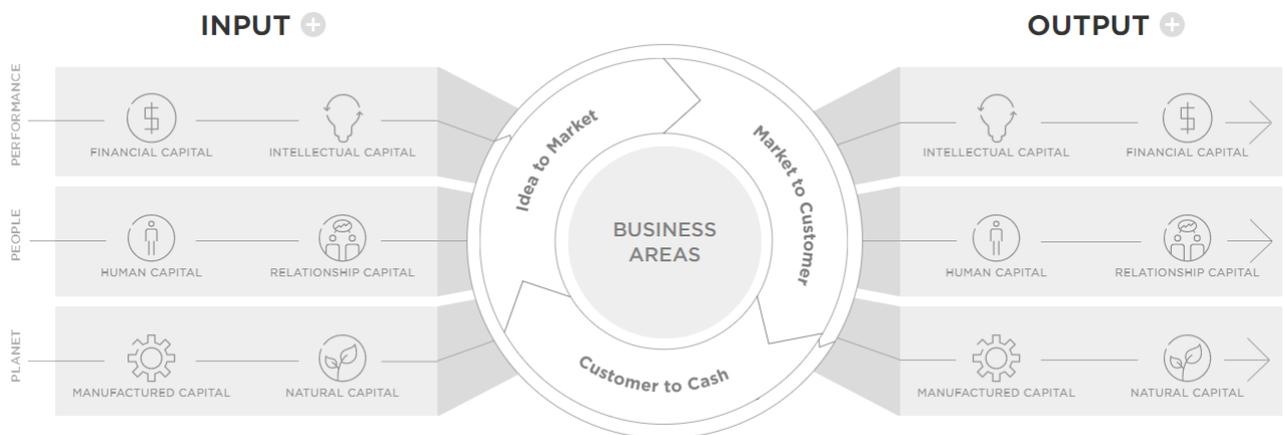


FIGURE 9: CLARIANT AG, INTEGRATED REPORT 2016

4.1.4 THE PORTRAYAL OF BUSINESS HISTORY THROUGH INFOGRAPHICS

Business history describes the history of companies, corporate practices, management, and the impact of businesses on economic growth over time. It also includes biographies of individual companies, board members, and contractors. It is mostly associated with the economic history of a company. Business firms across the world are using infographics to portray their successful business histories in their annual integrated reports.

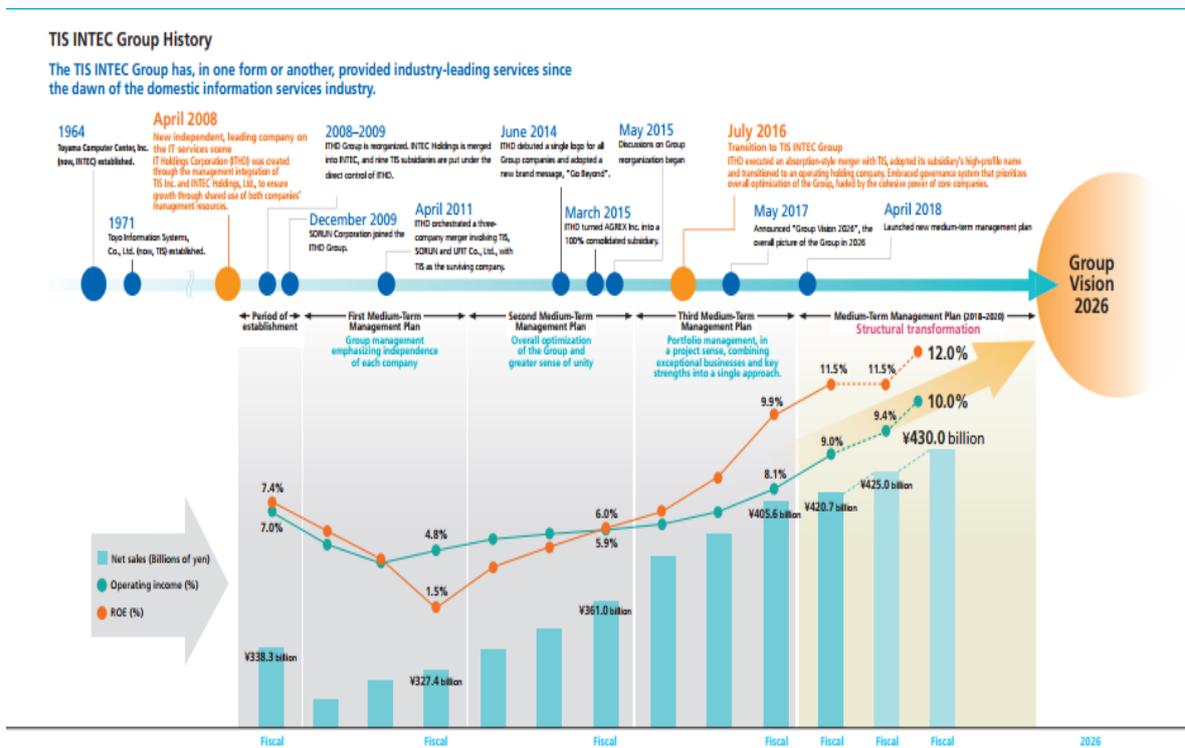


FIGURE 10:TIS INTEC GROUP, INTEGRATED REPORT 2019, P. 08

TIS INTEC Group has progressed over the years since its first company establishment in 1964. The infographics-based diagram has also connected its history with the group vision of 2026. Although the diagram in figure 10 looks a bit complex, it has covered a duration of over a dozen years. The same details would have taken 4-5 pages of plain text to communicate the history, thus making it more difficult for the clients and audience to understand it. Thus, it can

be established that business firms can use infographics with a combination of minimum text to communicate their history through visual communication.

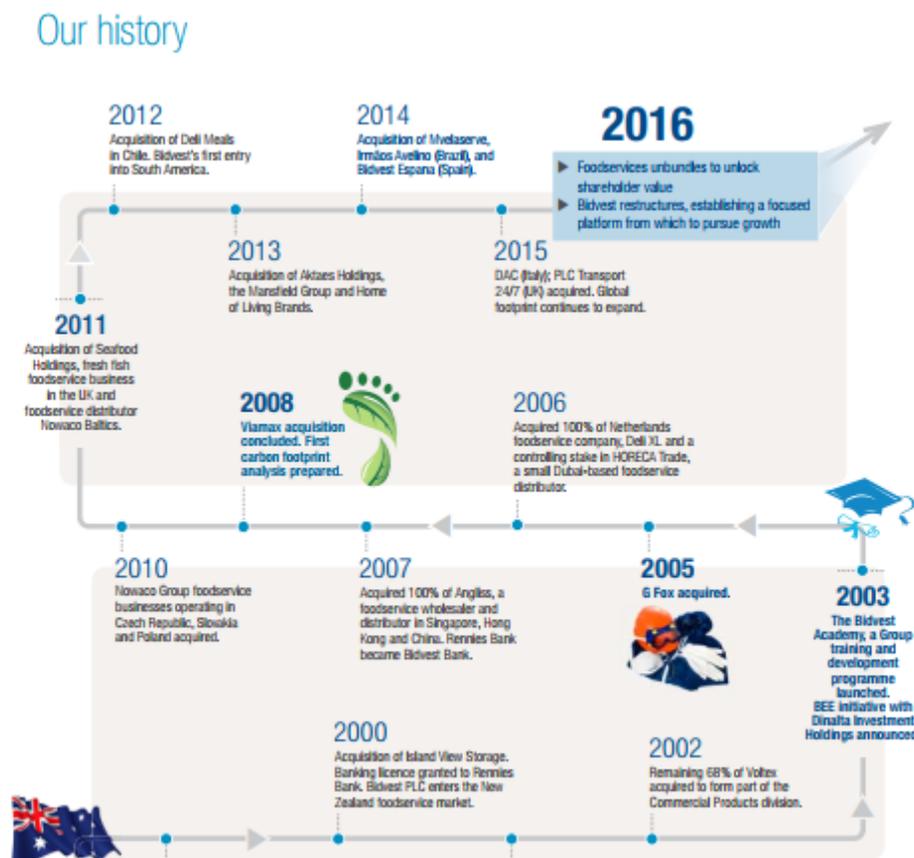


FIGURE 11: BIDVEST, INTEGRATED REPORT 2016

The above infographics-based figure (11) is showing the history of Bidvest since 2001. The infographic is portraying all the major milestones achieved by the Bidvest throughout its recent history. Bidvest Group Limited is South African trading, and distribution firm. The firm was established in 1988 and was registered on the Johannesburg Stock Exchange in 1990. The company owns or holds a major share in more than 300 companies all around the world. This simple stepwise crafted infographic can help the target audience in understanding the major accomplishments and goals achieved by the company

in recent years. History comprehension is always considered as a complex job, but infographics can help corporations to present their history in an effective and meaningful way in their annual integrated reports.

4.1.5 THE PORTRAYAL OF BUSINESS OVERVIEW THROUGH INFOGRAPHICS

A company overview (also documented as information about the company) is an important aspect of business plan. It is an outline of the most critical facets of a company or corporation. The below figure shows the business overview of Marubeni corporation. Simple and clear graphics are used to communicate the business overview, including components like lifestyle division, insurance, finance, real estate, ICT, logistics, and healthcare division.

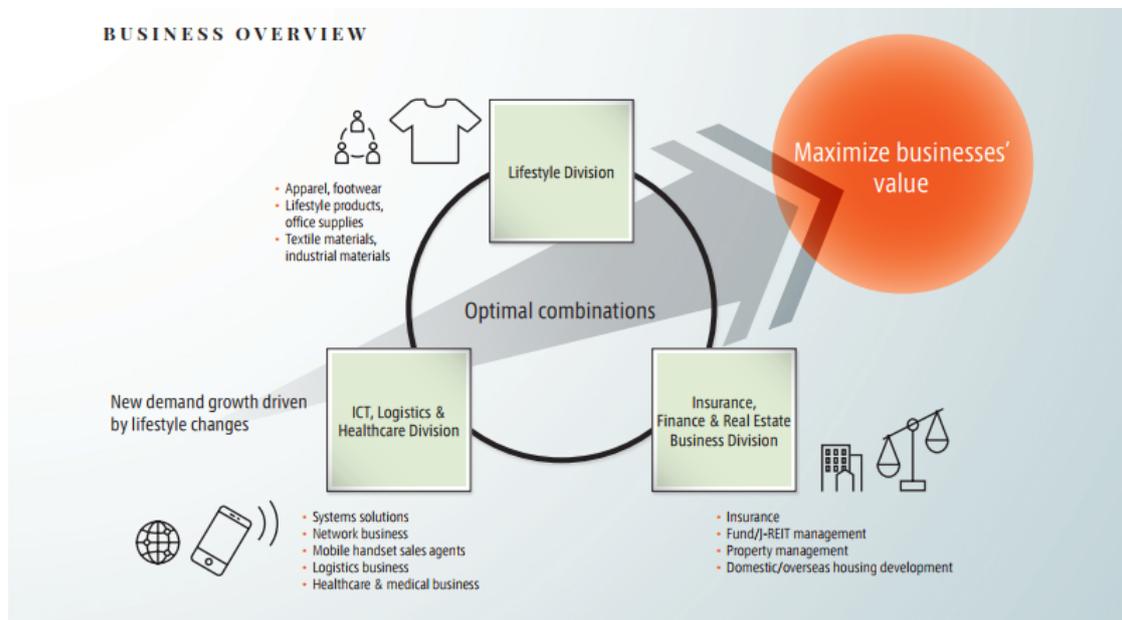


FIGURE 12:MARUBENI, INTEGRATED REPORT 2018, P. 08

4.2 PRIMARY DATA FINDINGS

4.2.1 INTRODUCTION

The main purpose of this primary research is to have practical insights of some well-known global companies on how and why they utilize infographics in their integrated reports, also giving some insights about the benefits of using such a method of reporting.

Furthermore, this research is conducted to gather the findings in an attempt to accomplish our project requirements. The very reason for open-ended responses personalized to individual needs is to accumulate perceptive and real answers. They communicate the subject matter straight and give you the most important data related to the research topic which you could not find elsewhere.

In the context of ongoing research named “the use of infographics in integrated reporting”, we exceptionally analyzed some renowned organizational sectors on how they achieve benefits in order to reach success horizon from multiple perspectives. The research questions are purely designed to have insightful information about selected companies. The mere justification is also presented on why these companies have been chosen. We have tailored the open-ended questionnaire in order to have some more authentic, up to date, and specific information to perfectly satisfy our research goals. Besides, it helped us in getting the direct feedback of our selected target group audiences which ultimately supports research findings. I opted for three companies named ENEL, NOVO NORDISK, and GOLDFIELD and received such overwhelming responses to support our research conclusion. Our questions based on very optimistic and growth-hacking parameters such as the frequency of infographics content in their integrated reporting system, enhancement strategy by the execution of visuals in detailed reports. In doing so, we will be able to accumulate an extensive set of data and information on real practices related to the use of infographics in integrated reports. In addition, taking responses on an individual basis can only provide a broader perspective on evaluating those

particular operations by organizations to promote their brand identity and to mechanize organizational strategy by an extensive consideration for visual content.

4.2.2 SELECTED FIRMS

According to principles explained in Section 3.2.5 I have selected three firms that satisfy my research's objectives. A short description of each is available below.

- GOLD FIELDS (Mining Industry)

(\$ 2967,1 million Revenues in 2019)

Goldfields caters to one of the best gold producers in the world. It has its roots in West Africa, Australia, and South Africa. In 2003, the Goldfield annual production increased more than 4.3 ounces of gold. The company has come into being in the year of 1887. At initial stages, it was the first financial group that was identified as the South African mining industry. In an attempt to become a major international mining finance house, it substantially relies on South African mines. Being a heavy producer of gold, Gold Fields has been involved in surface and underground copper and gold mining functions. The company's infrastructure by means of its functions is initiated from exploration, development, execution, processing, and smelting. It executes its operational activities from four different channels which are Australia, Peru, Ghana, and South Africa.

Gold Fields does not only involve in gold mining activities, but their organization also have other precious metal in the working line

Gold Fields is also heavily engaged in using infographics to communicate its values and objectives. It has been considered a growth-hacking tool that they use to present their business model, value creation, and operational mechanism reports. Using infographics, the company can capture the attention of the huge target market to show their vision and

mission statement. Infographics in integrated reports make it easy to read and effective in terms of getting immediate feedback from investors and stakeholders. It's no secret that a human brain is mechanized to grasp information more quickly when it comes across with graphics and pictures. Infographics contribute a lot in terms of providing crisp and concise information while highlighting all-important ones. Taking into consideration these streamline advantages of visual information, corporate leaders and business owners took a very extensive initiative of putting infographics in their reports. Gold Fields utilizes a thoughtful presentation of infographics. By using visuals to present data and information, Gold Fields get very clear reports which are very comprehensive and easy to perceive. They expose proper identifications of the mining cycle along with other operations and problems by employing infographics in their integrated reports.

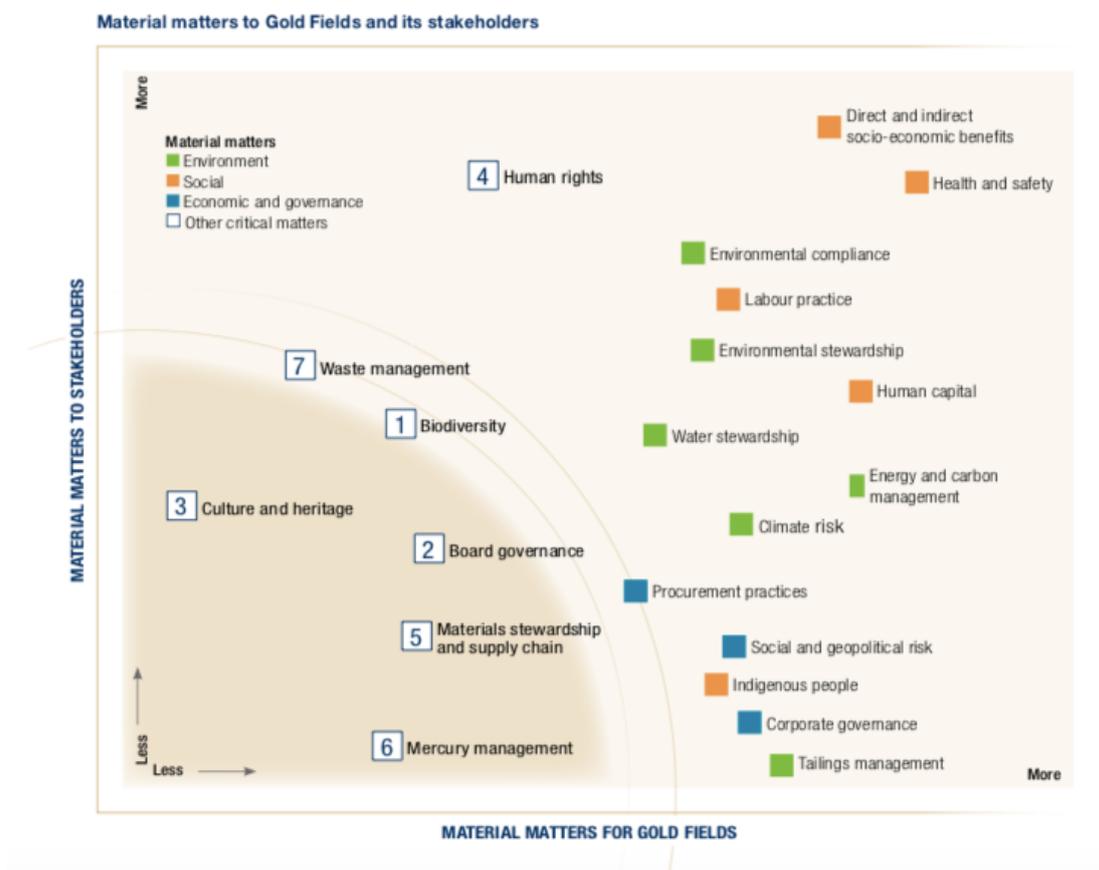


FIGURE 13: GOLD FIELDS, INTEGRATED REPORT 2019, P.14



FIGURE 14: GOLD FIELDS, INTEGRATED REPORT, P.7

- NOVO NORDISK (Pharmaceutical Industry)

(\$18,291 millions Revenues in 2019)

“We are a leading global healthcare company, founded in 1923 and headquartered in Denmark. Our purpose is to drive change to defeat diabetes and other serious chronic diseases such as obesity and rare blood and endocrine disorders. We do so by pioneering scientific breakthroughs,

expanding access to our medicines and working to prevent and ultimately cure disease. We employ about 43,100 people in 80 countries and market our products in around 170 countries". (Novo Nordisk official website)

Novo Nordisk is a healthcare company that is working globally and is headquartered in Denmark. Their integrated report is very sought out and the same format is usually used every year, making it easier for the stakeholders to locate where their respective table of interest is, or what page they would find the relevant information they require on.

The global leaders of Novo Nordisk believe that integrated reporting has drastically improved their level of insights into the business and its objectives, along with a substantial improvement in their business performance. For example, they say that they have been quite successful in portraying to the world how independent they are from using fossil fuels, and how this has positively impacted on the costs of goods sold.

The company initially, when it started, produced separate reports for giving financial information and sustainability related information. They have now integrated both aspects into one consolidated report, and this has helped them see both these terms and broader concepts in a correlated way and how one impacts the other.

Another great example of consolidated reporting is the fact that their employee costs' reporting (e.g. pensions, salaries, etc.) was initially under the financial and accounting aspects of reporting. Quality of employees and their motivation and engagement activities are some of the major factors and indicators of success for any company. The company, thus, planned to connect these two separate ideas into one, as they portray similar information, which makes cross-referencing much easier between the two factors.

Novo Nordisk is a company that uses infographics and integrated reporting in all of their business strategies, core elements of the company, financial analysis and all other departments in concern with the company. Even analysis of their business, its impacts and all the risks involved are first calculated and then presented using integrated reporting. They combine different elements of their

organization together to form a consolidated report that relates all co-related topics together, to form one complete analysis.

Another concept that they have started making use of in their integrated reports is to use metrics to shorten the amount of their bulk of the information. They have different metrics such as return on investment (ROI) etc. whereby they measure more than one aspect, such as financial and sustainable or human resource management together to gain ROI of employees, etc. This not only helps combine all aspects of a single employee or asset together, but it also gives a complete, broader picture of the prevailing situation.

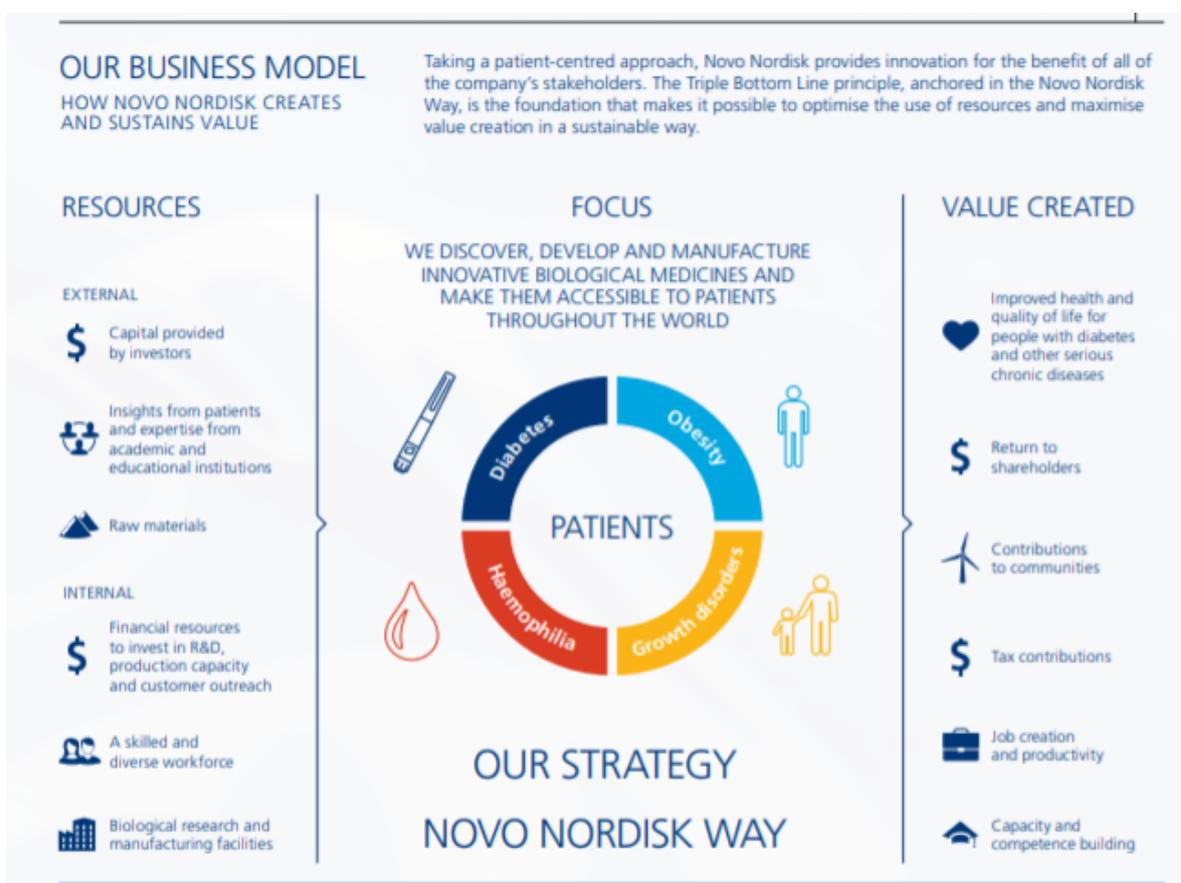


FIGURE 15: NOVO NORDISK, INTEGRATED REPORT 2019

As we have already mentioned, integrated reporting and infographics have made it easier to scrutinize reports and catch the problematic areas faster than those lengthy reporting documents that existed earlier.

For Novo Nordisk, their whole business strategy has now been based on integrated reporting material, whereby they have easily achieved their business objectives by giving their employees a clearer picture of the objectives, and easily being able to present their five strategic focus areas that needed to be taken into consideration.

Since all employees and workers are now on the same level of understanding, their communication and cooperation within the company has also increased, bringing more success to the organization.

What is helping Novo Nordisk the most is the fact that through one infographic image, or one graph, they are being able to portray and show many different dimensions of the business, and their correlation with each another, telling easily how one factor affects the other, and how they all affect business and its goals.

Through correlation and integration, Novo Nordisk has also been able to make their shareholders and outside stakeholders understand the value of different aspects of the business.

- ENEL (Energy Industry)

(89th largest company in the world by Revenues, with \$89 billion in 2019)

Enel is a utility company that is part of the energy sector and has been providing energy to different areas of the world since a long time. Their aim is to provide solutions to global problems related to the providing and the usage of energy, in a way that is sustainable for the company, people and the world in general.

Enel was founded as the national electricity supplier company in Italy and since then has kept growing throughout Europe and many other countries and continents around the globe.

Their prior aim was to provide electricity and power throughout areas, but with energy crisis leading to dangerous and excessive use of fossil fuels, Enel had to find alternative resources.

That need for renewable power sources is what led Enel finding different renewable energy sources that would be sustainable with time and areas and will cause very low damage to the community and the world. From their earlier vision of providing energy, their mission became to provide new ways and types of energy, which is suitable and sustainable even in the long run and reduces the carbon footprint.

According to officials of Enel, their whole system of reporting is based on the premise of integrated reporting, following the format of integrations, and has multiple regions and figures of infographics involved, so they are very familiar with the concept of infographics. They mentioned that their work is to move towards innovation and technological development, which makes them more and more open to change.

Their reports are a series of visual techniques that start right at the cover page and that cover page content is what drives all the readers and their attention to the important and essential aspects of their report for that year. Enel uses a range of expressive icons, figures and visuals that reflect their brand identity and make viewers see them as an advanced and open energy source.

They also have a series of collaborations going on with different companies, and so, their integrated reporting style and use of infographics involves the complete integration of all the different companies they are collaborating with and includes information from all of them. Enel's consolidated annual report of 2019 was completely digital and made sure that people realize how important it is to save resources and use technological advancements for their own benefit and move towards more sustainable ideas.

If you go through Enel's 2019 annual report, you will find multiple visuals that give a complete scenario of their operations, their plans for the future and links to their official website for any more details that are required.

Enel and its management team have come up with consolidated annual reports using integrated reporting and infographics to make sure that they are portraying themselves in the same light as their vision, which gives a brand identity to the company for being new, innovative and adaptive to technology, as their reports are published digitally since last year.

They believe that the use of infographics and integrated reporting will not benefit only the company, but also people who are going through the reports, as it gives them a clearer picture of the current scenario and status of the company, as well as a glance at future plans along with all financial and management details required, all in one image.

The content, as per Enel's core team, is efficiently and effectively communicated through infographics, and it provides a great customer experience to the people who are reading the reports, especially if they are accessing it digitally, because that makes it easy for them to navigate through the report, check out any links provided there. It also makes it possible to digitally reach a wider audience and make the report easily understandable and highly interactive for the viewers.

Integrated reporting, they said, also helps them present very extensive and comprehensive information in a clear and concise manner and gives a chance to the readers to focus on the main points and the important aspects, while channeling out all the irrelevant or extraneous details that may waste time.

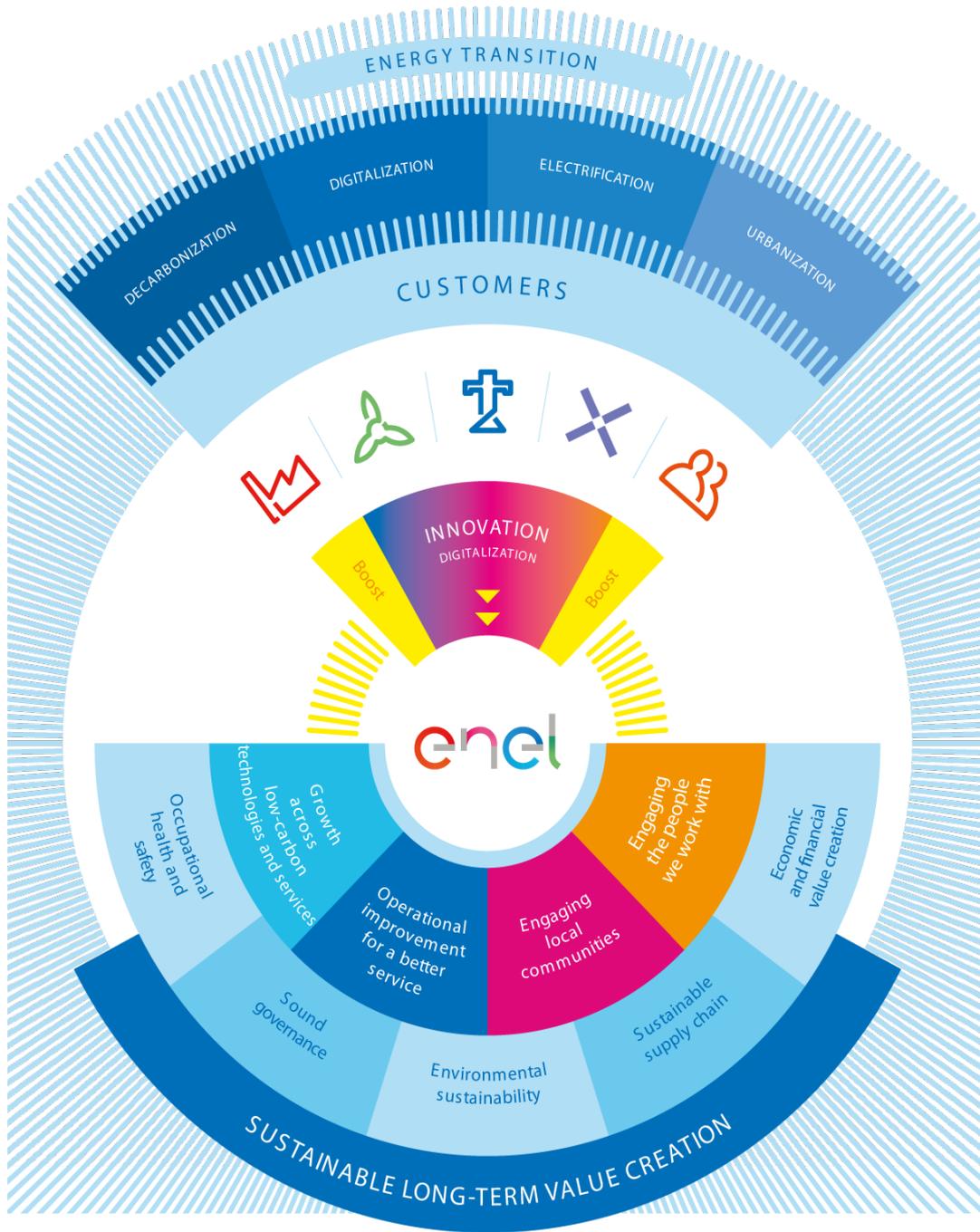


FIGURE 16: ENEL, INTEGRATED REPORT 2019

4.2.3 ANALYSIS OF PRIMARY RESEARCH'S DATA

In this section I will go through questions and respective answers given by selected firms in order to collect primary data.

Q 1: How much are you familiar with the use of infographics in <IR>?

TABLE 1: ANSWERS TO QUESTION 1

FIRM'S NAME	ANSWERS
<u>Enel</u>	<i>We aligned our overall IR system with infographics which shows that we are quite familiar with infographics.</i>
<u>Novo Nordisk</u>	<i>The intensity of knowing infographics can be gauged out by evaluating our 3 years back profit margins and corporate success horizon.</i>
<u>Gold Fields</u>	<i>Very familiar - we have been using them extensively for over 10 years.</i>

In the context of the above set of responses to an open-ended question, it has been proved that every organization is extensively aware of infographics utilization in their integrated reports. Moreover, they have communicated on how they are getting benefits.

Some companies have perfectly aligned their business reporting system with infographics. Respondent's answers show that they are very familiar with the use of infographics and not only this. They are also being heavily relied on visuals in their integrated reporting system. Some organizations directly set their success measures with the smart utilization of infographics. It shows that infographics terms and systematic layout make the success tenfold. It communicates details and lengthy reports into a simple and effective way which encourages the target audiences to make sense on an immediate basis.

Q 2: How can infographics enhance Integrated Reporting?

TABLE 2: ANSWERS TO QUESTION 2

FIRM'S NAME	ANSWERS
<u>Enel</u>	<i>We use range of visual techniques from cover page to the end results. The infographical content on our cover page reflects the whole report story by an expressive use of colors, icons and figures. All in all, it covers the Enel's brand identity. In short, visuals in our IR report make the content easy to grasp and effectively communicate the idea.</i>
<u>Novo Nordisk</u>	<i>It helps in communicating our story to broader audiences while avoiding long and lengthy details.</i>
<u>Gold Fields</u>	<i>They are much more descriptive and visual. As such it allows you to present complex developments and strategies in more easy-to-understand terms.</i>

The above responses to this question give the very idea behind how visuals can boost up the effectiveness of integrated reports. It delivers the more appealing and photographic content which helps stakeholders to thoroughly and quickly grasp the central idea of company's reports. They use range of visual techniques starting from storytelling to the end results. The figures, pictures and icons substantially showcase the company's vision and mission statement. The use of colors, visuals, icons and photographic content further brand identity of the company. All in all, the eye-catching presentation of ideas enhance the credibility of report and make it easier to communicate to stakeholder and investors. It makes the content easier to grasp which supports the concerned audiences to make immediate and effective decisions.

Q 3: Do you believe that by adopting infographics, you will be able to better communicate the value and value creating potential of your organization to investors and other stakeholders?

TABLE 3: ANSWERS TO QUESTION 3

FIRM'S NAME	ANSWERS
<u>Enel</u>	<i>Yes! Because using Infographics is one of the best ways to effectively and efficiently communicate information. Infographics put laser focus on one important point or data, removing all the extraneous detail so people see just what they need to understand the message behind it.</i>
<u>Novo Nordisk</u>	<i>Yes! Doubtlessly it does.</i>

<u>Gold Fields</u>	<i>Perhaps not investors, who still like a lot more detail in the information we provide - but certainly for other stakeholders, it makes the information more accessible.</i>
---------------------------	--

More than 90% of responses support the idea that infographics makes communication much better than the lengthy reporting format that was earlier in use. They claim that it makes the communication system faster and effective, while rendering the integrated reports to concerned parties. Though, some of them believe that infographic content does not play an influential role when it comes to investors. The very reason why investors are least interested in brief and concise reports is that they demand a broader perspective. They require insightful details of every aspect to make decisions. And because investors are the major source of capital for any company, most of the companies follow their investors' needs, including companies like Gold Fields, which is based on stakeholders' money invested into the mining business. In general, most of the companies prefer infographics in their integrated reporting. According to this, visual presentation is one of the best ways to convey the central purpose effectively and efficiently.

Q 4: *What are the benefits you see in adopting infographics in <IR>?*

TABLE 4: ANSWERS TO QUESTION 4

FIRM'S NAME	ANSWERS
-------------	---------

<p><u>Enel</u></p>	<p><i>Enel’s 2019 new digital Consolidated Annual Report widely adopt infographics in order to provide a higher customer experience. The fully digital and interactive report website also provides links to the company’s Sustainability Report, Corporate Governance Report, Remuneration Report and financial statements, as well as links to the corporate website in order to provide in depth details and a “circular” information experience for all stakeholders.</i></p>
<p><u>Novo Nordisk</u></p>	<p><i>We believe that infographics make the story and content easier to understand which further helps in decision making process on immediate basis.</i></p>
<p><u>Gold Fields</u></p>	<ul style="list-style-type: none"> • <i>It makes information more accessible and visual</i> • <i>It reaches out to stakeholders other than investors</i> • <i>Infographics can be used beyond the IR. We often use the infographics produced for the IR in internal and external communications campaigns</i>

As per the above responses, infographics are substantially utilized to promote higher customer experience. According to the survey findings, the digital reporting system supports multiple perspective reports that result in getting substantial and in-depth information. Moreover, it also makes detailed reports

into a crisp and concise form to convey substantial information in such a short period. Visual elements also present the business model benefits directly to stakeholders that can be seen at very first sight. This means infographics make business reports not only extremely easy to communicate, but also appeals to stakeholders to have their very attention since they ultimately have effects on goals achievement.

Further to this, some companies are satisfied in terms of having more accessible and visual information where the infographics' strategy in integrated reports contribute a significant role. In addition to the successful role-play of infographics, some companies execute their internal and external communication campaigns in their integrated reporting.

Finally, responses collected on an individual basis have reached the bare conclusion that organizational success depends on infographics in their integrated reports.

Q 5: What are the top 3 challenges you face in adopting infographics for <IR>? How did you overcome those challenges? Or are you still facing those challenges now?

TABLE 5: ANSWERS TO QUESTION 5

FIRM'S NAME	ANSWERS
<u>Enel</u>	<p><i>One of the main objectives of Enel's Consolidated Annual Report 2019 was to shape a clear and understandable report that could have reach a wide audience. At the same time, we were careful not to fall into simplification nor superficiality.</i></p> <p><i>In order to achieve this aim, we intentionally made an extensive use of infographics.</i></p>

<p><u>Novo Nordisk</u></p>	<p><i>We have never faced challenges while using infographics as of yet.</i></p>
<p><u>Gold Fields</u></p>	<ul style="list-style-type: none"> • <i>Sometimes the topics simple don't translate into infographics</i> • <i>Sometimes details get lost in the infographics that's why it's important to link to more detailed information on the website</i> • <i>The senior executives in the organization often find infographics confusing and simplistic</i>

There are multiple scenarios we have concluded in an effort to discover the challenges an organization can face while using infographics in integrated reports against the traditional reporting system.

Different opinions emerged from my selected sample. Some of them have never face challenges, in fact, they find infographics an extremely powerful tool. On the other side, some organization has to face challenges, but they manage them with a strong business strategy. As per the above responses, the main challenge is to clearly and nicely design an annual report which has to be understandable. This means that it should not depend only on visuals and colors or else the purpose of the report would not be accomplished. In short, there should be a balance between all elements.

Respondents stated another real challenge they face while creating the integrated reports. It has to keep in consideration before using infographics strategy the nature of topic which does not allow to translate it into visuals and simplicity.

Q 6: How did the use of infographics help improve the current <IR> of your organization?

TABLE 6: ANSWERS TO QUESTION 6

FIRM'S NAME	ANSWERS
Enel	It promotes simplicity, visuals and comprehensive content to transfer the important message in integrated reports.
<u>Novo Nordisk</u>	It makes the complex terms easy to grasp and comprehend which ultimately support our relationships with investors and private stakeholders.
<u>Gold Fields</u>	<ul style="list-style-type: none"> • It makes the Integrated Report much shorter. The upfront section about Gold Fields is now exclusively depicted in infographics and they work well • We use the infographics to explain the integrated nature of our business in internal and external communication campaigns

The very purpose of this open-ended question is to thoroughly collect the real data about how these organizations enhance their credibility in integrated reporting by the careful use of infographics.

Some have answered that the use of infographics supports their core business strategy. Communication is the key in every aspect of life where infographics make it even easier to attract target audiences. Doing so, it strengthens the organization's relation with investors and stakeholder. The very crucial part is that infographics turns the lengthy and stale content into brief and colorful terms. This ultimately creates an everlasting impact to attract the investors and stakeholders.

4.2.4 THEMATIC ANALYSIS

Numerous themes and subthemes emerged from the email interview data. Using thematic analysis, the interviews were encoded into specific themes focused on study goals and interview questions to establish an initial design. Each large theme was then subjected to a more thorough manual review, which contributed to the development of more precise details from each theme. These themes explicitly answer our initial research questions and objectives. The below sections consist of two main topics and the associated themes.

- Opportunities and advantages
- Challenges

TABLE 7: THEMATIC ANALYSIS OF PRIMARY DATA

Thematic Analysis of Interviews Data	
Topic	Themes
	Long-Term Retention
	Better Understanding
	Easier Interpretation and Conclusions

Opportunities and Advantages	Shorter Integrated Reports
	Creation of Micro-Interactions with the Audience
	Catch the Attention of the Target Audience
	Highlight Important Information
	Summarize Complex Concepts and Technical Figures
	Linkable Composition and Internal Communication
	Use of Colors for Spotlight and Differentiation
Challenges	Over Complex designs
	Misinterpretation
	Time and Cost
	The Requirement of Specific Skills Set

OPPORTUNITIES AND ADVANTAGES OF INFO-GRAPHICS

In this section, I have discussed all the themes that include opportunities created by infographics and all advantages interview respondents have mentioned in their interviews. The major themes emerged under this topic after thematic analysis of interviews are long-term retention, better understanding, easier interpretation and conclusions, shorter Integrated

Reports, creation of micro-interactions with the audience, catch the attention of the targeted audience, highlight important information, summarize complex concepts and technical figures, linkable composition and the importance of the use of colors for spotlight and differentiation.

- ***LONG-TERM RETENTION***

Infographics were highlighted as excellent visual tools that help stakeholders of business firms retain information in integrated reports for longer periods. Long-term retention includes the retrieval and the use of information after a fairly long period has passed since the information was received. One participant reported long-term retention as one of the prominent features of Infographics.

“Infographics have several benefits. In general, they are a useful communication tool that can increase memory retention versus text only.”

- ***BETTER UNDERSTANDING***

Infographics were reported as a source of visual communication that can help individuals better understand the meaning behind various concepts in integrated reports. As integrated reports contain various segments and detailed information about each aspect of organizational progress and performance, it is always useful to convey such information in the form of infographics and limited body of the text. Another interview participant has mentioned that infographics help their organization to communicate technical and complex concepts and terms in their annual integrated report in an understandable way

“They (Infographics) are much more descriptive and visual. As such it allows you to present complex developments and strategies in more easy-to-understand terms.”

In a similar pattern, participants also indicated that infographics help their organization to focus on important details and information in their annual integrated reports and make it easier for the investors to grasp important information quickly and effectively.

“Infographics put a laser focus on one important point or data, removing all the extraneous details so people see just what they need to understand the message behind it.”

A better understanding of various concepts in integrated reports is also linked with quicker decisions; participants highlighted that investors could make quicker decisions based on better understanding that can ultimately help the business firms in long terms.

“Another plus in using infographics is to speed up information processing and understanding, resulting in incrementally quicker decisions.”

- ***EASIER INTERPRETATION AND CONCLUSIONS***

Easier Interpretation and conclusions also emerged as the main theme as a result of thematic analysis. Graphic design content like lines, borders, circles, and squares visually organize the content of integrated reports, and the readers usually find it easier to interpret reports content. Participants reported an easier interpretation of concepts of integrated reports through infographics.

“Infographics allow us to communicate the content in a way that makes the information easier to understand and remember. All of

these elements can work in tandem to help readers draw conclusions.”

- ***SHORTER INTEGRATED REPORTS***

As stated earlier, integrated reporting in marketing communications is a "method that results in correspondence, most obviously a quarterly" integrated report ", on value development over time. Since usually integrated reports are published on an annual basis, integrated reports are full of information and often contain a large number of pages. Due to the value-added addition of infographics in integrated reporting, participants mentioned the value of infographics in reducing the length of integrated reports.

“It (Infographics) makes the Integrated Report much shorter. The upfront section about Gold Fields (One of the world's largest gold mining firms) is now exclusively depicted in infographics and they work well.”

- ***CREATION OF MICRO-INTERACTIONS WITH THE AUDIENCE***

Email interview participants mentioned the aspect of micro-interactions with the target audience of their respective firms. According to participants, micro-interactions can boost the value of integrated reports as they make the information more accessible and convenient for the clients of their organizations.

“They (Infographics) give more opportunities to develop relationships with a wide variety of individuals, media, and organizations. They are easily shareable and support the creation

of micro-interactions with the audiences, helping facilitate positive experiences with the organization.”

- ***CATCH THE ATTENTION OF THE TARGET AUDIENCE***

Interview respondents reported that infographics can catch the attention of the target audience, which can ultimately help business corporations or firms to establish facts and information conclusively. As mentioned earlier, annual integrated reports of business firms and corporations are lengthy documents, but the use of infographics can aid the corporations to present information in a way that can easily attract the attention of the target audience of the respective company or corporation.

“Infographics give us away, not only to reach a target audience but also to grab their attention and be memorable.”

- ***HIGHLIGHT IMPORTANT INFORMATION***

As also discussed in the secondary analysis of the thesis, infographics make dry information engaging and easy to understand and are used strategically to highlight the most important information in the integrated reports. Participants reported that infographics if used effectively in the integrated reports can catch viewers' attention and highlight what matters most to their firms.

“It (Infographics) makes information more accessible and visual and can reach out to stakeholders other than investors.”

- ***SUMMARIZE COMPLEX CONCEPTS AND TECHNICAL FIGURES***

Another major aspect noted in the participant interviews was the fact that infographics can make complex and technical topics simple and

easy to understand. Based on the experience of their annual report, participants identified infographics as the best medium of conveying complicated information and data.

“One of the main objectives of the “Annual Report of 2019” was to shape a clear and understandable report that could have reach a wide audience. At the same time, we were careful not to fall into simplification nor superficiality. To achieve this aim, we intentionally made extensive use of infographics. Our experience suggests that infographics are useful to understand technical figures, summarize complicated concepts, and are visually attractive.”

Another participant reported in the interview that infographics help their organization in communicating messages effectively.

“Infographics have several benefits, they (Infographics) simplify the needs to communicate a complex message.”

- ***LINKABLE COMPOSITION AND INTERNAL COMMUNICATION***

Various figures within the annual integrated reports of companies are using info-graphics elements like graphs, icons, shapes, and text to communicate their business strategies. This theme emerged as a result of this function of infographics, where multiple shapes are connected and linked together to explain a concept in an easy and meaningful way. Since infographics are emerging as a modern visual communication method, participants also reported that their companies are also using infographics for the internal communication of their respective companies.

“Infographics can be used beyond the IR. We often use the infographics produced for the IR in internal and external communications campaigns.”

- ***USE OF COLORS FOR SPOTLIGHT AND DIFFERENTIATION***

The selection of colors in infographics also plays a fundamental role in integrated reports. Different colors differentiate between different sections of an infographic figure and this variation grabs the audience's attention within the first few seconds. Participants reported that the colors used in infographic allows them to highlight different data sets and their relationship with each other.

“The photos and the words on the covers of all our reports express a statement: our company Purpose; this is the first step to make the reports integrated. Then a coordinate use of colors, icons, photographic style, and infographics expresses our brand identity guidelines, and breaks the report into clear sections.”

CHALLENGES OF INFO-GRAPHICS

In this topic, I have discussed all the themes in the shape of challenges faced by business corporations and firms due to the ever-increasing demand for infographics in Integrated Reporting. The major themes that emerged under this topic after thematic analysis of interviews are over complex designs, misinterpretation, time, cost, and the requirements of specific skills.

- ***OVER COMPLEX DESIGNS***

Infographics also create problems and they can be a source of miscommunication when they are not accurately used by professionals. Respondents reported that sometimes infographics are over-complex and

complicated, and it is difficult to extract the true meaning of the concepts in integrated reports.

“Sometimes the topics do not translate into infographics accurately and certain details get lost in the infographic.”

- ***MISINTERPRETATION***

The target audience of the integrated reports must interpret the visual message accurately conveyed through infographics. Some respondents reported that some of their investors need detailed information in combination with infographics before investing in the company. They believe that infographics should always be used with the combination of text for better communication.

“We sometimes do not communicate the value and value-creating potential of your organization to investors through infographics because still, they like a lot more detail in the information we provide - but certainly, for other stakeholders, it makes the information more accessible.”

- ***TIME AND COST***

It is also important to mention that infographics are more costly and take more time as compared to simple plain text. Organizations usually hire professional graphics designers to make attractive and meaningful infographics. As mentioned earlier, the preparation of infographics needs more time. An infographic will cost anything from a few hundred to a few thousand dollars. Since good infographics require time and exquisite design which means allocating a fair budget to a freelance designer and it is may not affordable for small businesses. As mentioned earlier there any many online resources where business firms can develop appealing infographics with limited budgets.

- ***THE REQUIREMENTS OF SPECIFIC SKILLS***

It is also reported that business firms and corporations need to hire professional graphics designers to make infographics for their integrated reports. As mentioned earlier it is important to hire professional people to make infographics, otherwise, business firms can face issues of miscommunication and misinterpretation related to their integrated reports. A profound understanding of the subject matter and the underlying data is the fundamental necessity to create an infographic, to begin with. In addition to regular layout work, within an infographic, it is even more important to pay close attention to visual hierarchy, to allow users to quickly grasp important aspects. Also, the proximity of pieces of information can cause an association of causality, which might not necessarily be the case, so business firms need to pay extra attention to it.

CHAPTER FIVE: CONCLUSIONS

5.1 CONCLUSION

This thesis proves how there has been a shift in world trends while accessing, retrieving and analyzing data in recent years. In fact, all organizations are looking for ways to analyze data and present them in a clear and concise manner. No one nowadays has the time to go through lengthy and wordy reports, which is the reason why stakeholders want that firms' reporting style also changes with this mindset.

To avoid any lengthy information pools and to get direct and clear-cut answers to all their problems, companies decided to make use of infographics in their reporting system.

As we all know, using visual, pictorial and graphic representations can make messy information turn into meaningful information.

To make reports even more interactive and interesting, organizations can also use animations or different kinds of graphs and charts to get their point.

For this research, I have conducted some secondary research first to find out some background like what infographics are, when it was born and what effects it had in different aspects of reporting. But all this gives not enough evidence for us to base any conclusions on.

So, I have conducted a primary research as well, where I picked out a few organizations that make use of integrated reporting and infographics and asked them a few questions related to the topic.

I have highlighted the most relevant answers and chosen the 3 most enthusiastic organizations who were ready to help me in finding out more information about the topic. These companies helped me understand all the different ways integrated reporting systems can make ample use of infographics and in what ways is infographics most useful.

At the end of my research I could see that most of the companies using infographics in integrated reporting informed me that infographics is the new development in reporting as technology is advancing.

They highlighted the facts that most of the reports were very long in the past and anyone would go through a complete reading of reports.

On the other hand, some companies that answered the questionnaire, were highly realistic and informed us about all the drawbacks and shortcomings of using infographics in their reporting and how it is not always a useful tool. For example, a company pointed out how their investors need a more detailed draft of the company's business and infographics, for them, is very short and not satisfactory. So, infographics and concise work is not always appreciated.

Though, one important aspect brought to focus was that infographics in reporting show multiple correlations between different aspects and departments. They put much more focus on crucial pieces of information and exclude others like extra irrelevant details.

Infographics can now be seen in most of integrated reports, especially when presenting business model, performance and financial parameter, input or output information, revenue generation process, sustainability reporting, and many more areas across all organization.

In summary, my findings verify that infographics are effective in presenting the information for the understating of the content of the integrated reports. The results of both primary and secondary data studies revealed that infographics are positively impacting integrated reporting of business firms around the world. Secondary data findings revealed that infographics convey a clear image of the information they are meant to be conveyed. They are an effective way to make the reader excited about the content of the integrated reports, encouraging her/him to understand the given data and information more easily. The simplicity of infographics was considered as one of the important factors for effective and persuasive communication by business firms and corporations around the world. Analysis of annual integrated reports of business firms and companies around the world revealed that infographics are usually used to convey value creation processes, business models, performance, stakeholder

engagement overviews, performance highlights, input, output, risk management, and revenue process in an effective way.

The use of infographics leaves no need for stakeholders to spend hours in reading lengthy and boring texts since corporations usually summarized the main content of their integrated reports into understandable and attractive infographics.

However, it was also noticed that infographics should be used with the combination of text to visually communicate more appropriately and understandably. Furthermore, it was also revealed that, although it is important to use the latest graphics in the shape of various icons, diagrams, and shapes while designing infographics, it is also crucial to make them simple and easy to understand. Sometimes extra complex designs can prove challenges to understand and interpret. The majority of the time, it is the simplest type of infographics that are most effective to communicate the message accurately and effectively.

Numerous themes emerged as a result of the thematic analysis of email interviews from the respondents working in business firms around the world. All themes were classified into two major areas; the opportunities and advantages produced by infographics in the world of integrated reporting and the associated challenges. The first area of the themes revealed that infographics in integrated reports can help in long-term retention of content, enhances understanding and they are easier to interpret and conclude. Results also suggested that infographics make integrated reports shorter, thus less time is required to read and understand integrated reports of business firms and corporations around the world. The creation of micro-interactions with the audiences was also revealed as an important function of the infographics in integrated reports. Participants also reported that infographics can help in grabbing the attention of the target audience of the business firms. They reported that infographics can highlight important information and data, summarize complex concepts, and technical figures in an understandable manner. Apart from the mentioned benefits, participants of the study reported that infographics are suitable for explaining linked and complex processes of integrated reports. The selection of

colors in infographics also emerged as a major theme. Participants reported that colors play a fundamental role in integrated reports. Different colors differentiate between different sections of an infographic figure and this variation grabs the audience's attention within the first few seconds. The use of color in infographics allows them to highlight different data sets and their relationship with each other in integrated reports. Thus, it can be concluded that the use of infographics in integrated reports is helping business corporations big time in making their integrated reports effective and easy to understand.

While infographics can boost the credibility of integrated reports, at the same time participants of the email interviews revealed that complicated and complex infographics can create comprehension problems and they can be a source of miscommunication. The participants suggested that infographics should always be prepared by professional graphics otherwise the target audience of integrated reports can face misinterpretation and miscommunication issues. The analysis of the participants' email interviews also revealed that good infographics require time and exquisite design which means allocating a fair budget to a freelance designer. Many small businesses cannot afford such luxuries but there are many online resources where business firms can develop appealing and effective infographics for their integrated reports with limited budgets.

Well-crafted infographics are an effectual part of visual communication and are an integral part of integrated business and corporate reporting. Quality infographics consider the needs of clients, investors, and stakeholders of business organizations. Developing integrated report materials in visual medium needs an awareness of many other domains for the developer, as well as deep knowledge of the digital technology. The designers should have a deep understanding of the principles of visual communication and the procedures of analyzing and interpreting visual information and data. The developer of the infographics needs to be aware of the integrated reporting processes since the key objective of such communication is to efficiently communicate facts and

information to the target audience. Properly planned and appealing infographics can be incredibly beneficial to business firms and corporations.

This primary and secondary research-based analysis has demonstrated that multiple and very important advantages can be accomplished by the visual and appealing nature of infographics in terms of quality, presentation, and interpretation of integrated reports. Good and simple infographics designs can bring benefits by enabling more successful integrated reporting. The development of infographics has a very big potential for improving integrated reporting, and it can be derived that the creation of visual content can be considered an essential aspect of the development of integrated reports. As mentioned earlier it is important to make sure not to develop over complex and complicated designs, because it can produce miscommunication and misinterpretation problems.

5.2 FUTURE WORK

In future research of this thesis topic (“The Use of Infographics in Integrated Reporting <IR>”) or on further study of the overall efficacy of infographics in integrated reporting, there are some things that future researchers should adjust and try. Interviews with a large number of participants can reveal additional facts and information. Apart from the representative of firms, researchers should research the shape of qualitative interviews from the target audience of the integrated reports to know about their perspectives on the use of infographics in integrated reporting.

Another important thing that future researches should work on is the concept of online infographics based integrated reports. During the secondary analysis of the integrated reports of business corporations around the world, it was noted that many companies publish interactive and animated infographics based integrated reports on their official websites. Such initiatives can further enhance the importance of animated infographics in today’s digital world. Advanced technical capacities, such as online interaction or the creation of an

interactive version of infographics that uses both animated and static graphics online can convey a particular part of content more appropriately (Hassan, 2016). According to Hassan (2016), supplying viewers with a navigation tool through the different stages of the content would be helpful in the testing process and to check whether online interaction-based features can enhance comprehension.

5.3 FUTURE IMPLICATIONS

The results of this primary and secondary research-based study about the use of infographics in integrating reporting and any other relevant possible future research work would be of huge importance to business firms and corporations from all around the world. The results of the study can help them in preparing effectively integrated reports with the help of a simple and easy to understand form of infographics. Furthermore, business corporations who are yet to explore the role of infographics in integrated reporting would benefit greatly from this primary and secondary research-based study.

APPENDIX A: USING INFOGRAPHICS IN INTEGRATED REPORTS
BY REAL COMPANIES

<u>Company's Name</u>	<u>Where do they use infographics?</u>	<u>What benefits do they get from it?</u>
Gold Fields (Mining Industry)	<ul style="list-style-type: none"> - Presentation of their Business Model and Value Creation - Operational Mechanism Reports 	<ul style="list-style-type: none"> - Clear reports - Easy to perceive - Proper identification of mining cycle and other operations or problems
South Africa's Central Securities Depository (Strate) (Finance Industry)	<ul style="list-style-type: none"> - Capital Reporting - Presentation of the input, processes and output of Capital 	<ul style="list-style-type: none"> - Clear identification of sources of capital - Easily understood images of processes involved - Outputs and outcomes are summarized
Natura (Cosmetics and Personal Care Industry)	<p>They use it to show:</p> <ul style="list-style-type: none"> - Modes of their operation - Value Chain integration with stakeholders' needs - Connections between all the resources used - Their transformation processes - Environmental consequences of their products 	<ul style="list-style-type: none"> - Clear identification of their inputs (all resources used) - Emphasize on certain aspects of the business for greater market value <ul style="list-style-type: none"> - Show clearly and easily how it helps cater to its customers in all categories - Prove themselves as environment-friendly
Unicredit (Banking)	<ul style="list-style-type: none"> - Reporting their financial statements - Value Creation Model Presentation - Maps for Stakeholders - Organizational Charts 	<ul style="list-style-type: none"> - Arrangement of drawings helps break down complex banking procedures for stakeholders - Easy explanations of

Industry)	- Matrix of Materials and Baking Procedures	investments and monetary terms - Client perception is much broader and better
ABN AMRO (Banking Industry)	<ul style="list-style-type: none"> - Promote integrated thinking - Reducing long procedures to shorter images - Shows a balanced models with all pros and cons in one look <ul style="list-style-type: none"> - Strategy and Sustainability model is easily presented - Show Value Creation to internal and external departments at all levels 	<ul style="list-style-type: none"> - Cooperative and interactive <ul style="list-style-type: none"> - Reduction in information density for easy understanding - Input, processes and output are all shown in one chain - All stakeholders can see at one glance what they think is important - Better to look at the bigger picture with infographics
Deloitte (Finance Industry)	<ul style="list-style-type: none"> - Making complex financial issues and statements shorter and clearer - Shows stakeholder value and other components at one go - Past trends, current state and future prospects, all can be clearly presented through visuals 	<ul style="list-style-type: none"> - Easily comprehensible - Complex components are broken down through infographics for a clearer picture - The company's whole year can be portrayed in one diagram - Problematic areas are easily highlighted and can be solved promptly.
Novo Nordisk (Pharmaceutical Industry)	<ul style="list-style-type: none"> - Analysis of business's impacts and risks involved - Bulk information shortened into appropriate metrics <ul style="list-style-type: none"> - Major insights gaged - Adjustments made to operations 	<ul style="list-style-type: none"> - Easy to scrutinize problematic areas - Company can manage and report multiple dimensions through single graphs

	and strategy	- Understanding the value of different aspects is made easier for shareholders and internal staff
Jones Lang LaSalle (Real Estate Industry)	<ul style="list-style-type: none"> - To bring a broader understanding of value creation - To support business strategy and strategy-setting - In Risk-management processes - For strategic thinking and sustainability activities 	<ul style="list-style-type: none"> - Allows investors to see long-term prospects - Identify problematic areas and relocate - All factors impacting the business are clearly visible - The business's impact on other factors is also visible
Generali Group (Insurance Industry)	<ul style="list-style-type: none"> - Embedded in their processes and presentations - In transformation projects (before and after results) - For managing global relationships - To integrate all countries where they are operating - To present their services to the investors / customers 	<ul style="list-style-type: none"> - Helps in building a larger market (as people understand better through visuals) - Keeps all global staff and stakeholders on the same page - Helps show progress or failure of different transformations made
Enagas (Energy Industry)	<ul style="list-style-type: none"> - It connects content elements with one another - Concepts all aspects of past, present and future in one glance - Presentation exercises to different industries and explaining energy concepts 	<ul style="list-style-type: none"> - Broken silos between different departments - Increased level of engagement in organization - Led to more involvement within different teams - Strengthened relations with financial capital providers
	- To present strategy and sustainability information	- Gives a brief overview to readers

<p>Munich Airport (Airline Industry)</p>	<p>Used to highlight key issues</p> <ul style="list-style-type: none"> - Gives a great snapshot of all the operations <ul style="list-style-type: none"> - Integrates all different departments into one image 	<ul style="list-style-type: none"> - No need for multiple reports, one is enough <ul style="list-style-type: none"> - Makes it easier to identify problems and solutions
<p>PTT Global Chemical Public Company Limited (PTTGC) (Chemical Industry)</p>	<ul style="list-style-type: none"> - Financial and Sustainability Reporting <ul style="list-style-type: none"> - Data accessibility and understandability for stakeholders and investors - Presents strategy, growth, performance and direction of the business 	<ul style="list-style-type: none"> - Helps investors understand the business - Helps the business foresee its outcomes - Brings all reporting down to a single source
<p>Danone (Food & Beverage Industry)</p>	<ul style="list-style-type: none"> - Efficient way to communicate with stakeholders - Presents all different categories in one go - Provides well-articulated data - Can easily present the Danone strategy with its help 	<ul style="list-style-type: none"> - Easy to grasp numbers and growth through graphics <ul style="list-style-type: none"> - Efficiency in communication - External stakeholders can easily find and understand information on their own without having companies hold large meetings
<p>Development Bank of Singapore (DBS) (Banking Industry)</p>	<ul style="list-style-type: none"> - Expression of strategy - To show their approach towards value creation - Financial and capital reporting - To integrate operations within the different segments of the bank - Shows cost of equity, risk and all financial probabilities in one snapshot 	<ul style="list-style-type: none"> - Positive feedback from investors <ul style="list-style-type: none"> - Free PR received - Lower risk due to identification of outcomes beforehand
<p>Shell</p>	<ul style="list-style-type: none"> - Presenting significance of operations to stakeholders - Showcasing material matrix 	<ul style="list-style-type: none"> - Finds appropriate solutions to issues in due time

<p>(Oil & Gas Industry)</p>	<ul style="list-style-type: none"> - Gaging materiality issues - Sustainability reporting 	<ul style="list-style-type: none"> - Clear and abundant information on material and sustainability issues - Higher transparency level
<p>Sasol (Energy & Chemical Industry)</p>	<ul style="list-style-type: none"> - Presents key environmental, social and governance issues all in one - Shows risks and opportunities side by side - Impacts on business results can be seen - Management's approach can be explained easily 	<ul style="list-style-type: none"> - Makes reader understand critical risks - Readers can see which opportunities are worthy - Each risk and opportunity clearly show their impact and consequences on the business
<p>Microsoft (Technology Industry)</p>	<ul style="list-style-type: none"> - Static and annual reporting <ul style="list-style-type: none"> - Corporate reporting - Analysts and consultants use it the most <ul style="list-style-type: none"> - One chart fits all approach towards infographics - Localized + target specific reporting according to regions / departments 	<ul style="list-style-type: none"> - Highly interactive - Real-time reporting is possible with infographics - Multichannel and specific targeted reporting can be done by infographics - Efficient in gaging interest of stakeholders on serious matters
<p>L'Oreal (Cosmetics Industry)</p>	<ul style="list-style-type: none"> - Sustainability communication on the web - Posting and asking questions in real-time - Use of video, social media and different infographics to present results and engage audience <ul style="list-style-type: none"> - Interactive mapping 	<ul style="list-style-type: none"> - Gain PR and customers - Interactive sessions with work staff and teams for better work performance - Keeps teams distant but still feeling close

		<p>enough, integrating them</p> <ul style="list-style-type: none"> - Easy collaboration and engagement with viewers
<p>General Electric (GE) (Energy Industry)</p>	<ul style="list-style-type: none"> - Annual reporting - Stakeholder reports - Personalized sustainability charts for electricity consumption by users - Performance presentations - Interactive and mobile-friendly games and apps developed for reporting 	<ul style="list-style-type: none"> - Strong company growth - Keeping up-to-date with technological trends - Better and easy communication - Can engage stakeholders anytime, with just a click - Gather data and analyze it easily
<p>Coca-Cola HBC (Bottling Company)</p>	<ul style="list-style-type: none"> - Product portfolios - Bottling and Distribution reports - Sales and Customer Relationship presentations - Impact on consumers and community 	<ul style="list-style-type: none"> - Keeps information minimum and concise - Communicates key messages effectively - Easy for readers to understand
<p>Solvay (Chemical Industry)</p>	<ul style="list-style-type: none"> -To present the resources, business model and market along with created values. - To present strategic objectives and provides information on company's markets. 	<ul style="list-style-type: none"> -It helps in equating the inputs and outputs of their economic, environmental and social factors. -The figures in each section can be compared on one screen and compared individually.
<p>Clariant (Finance Industry)</p>	<ul style="list-style-type: none"> - To assess the effectiveness of performance, people and planet (3 elements of business model) before and after strategy implementation. 	<ul style="list-style-type: none"> -Creates value in multiple dimensions -Handy conversions of business model inputs into outputs to help in rational decision making for customers,

		<p>employees and shareholders.</p> <p>-Infographics framework is so nicely designed for on time availability of every bit of information.</p>
BASF (Chemicals Industry)	To illustrate the comprehensive overview of value creation and to utilized possibilities of online display through tap version.	<p>-Provides clear structure of how inputs transform into various outputs.</p> <p>-Very responsive</p>
Arcelor Mittal Steel Company (Steel Industry)	<p>-Use infographics to represent value creation for society.</p> <p>-Vertical representation of inputs and company resources</p>	<p>-Visualization of functions into key figures</p> <p>- Outstanding shareholder integration</p>
Shopify (Ecommerce Industry)	Infographics are used in presenting annual reports to enhance the visuals in data, highlight growing numbers and other key information.	<p>-Powerful combination of readable graphs.</p> <p>-Looping animations.</p> <p>-Communicate engaging information through images.</p>
MailChimp (Email Marketing)	Utilization of infographics in email campaigns to add fun delights and by the numbers leading to in depth information of related content.	<p>-Numeric figures are linked to blogs, inspirational content and pure entertainment by boosting up visuals.</p> <p>-More attention-drawing</p> <p>-Increase engagement</p>
KickStarter (Financial Service Internet)	Infographics showcase highly successful projects and interactive slideshows	<p>-Simplicity in presenting data</p> <p>-Generate enthusiasm</p> <p>-Inspire viewers and easy to adapt the message</p>
Austria Solar	Used to illustrate the effects of	-Blank paper turns into

<p>(Electric Power Sector)</p>	<p>sunlight on blank paper before and after reaction to emphasize the use of solar energy.</p>	<p>useful information when light reflects on it -Attention grabbing -Satisfactory conversions of ideas</p>
<p>Prime Super (Non-profit organization for Australians)</p>	<ul style="list-style-type: none"> -Use of icons and call out figures -Highlights main achievements and general facts of the Funds. <ul style="list-style-type: none"> -Financial statements -Key management data -Board members information 	<ul style="list-style-type: none"> -Clear snapshot of financial reports -Ease in distributing funds by showing upgraded charts. - Outputs and outcomes are summarized -Extremely shareable.
<p>Course Hero (Learning platform)</p>	<p>Course Hero expertly uses infographics marketing as an extension of both their service and their brand promise: making learning easy and accessible.</p>	<ul style="list-style-type: none"> -Useful education to the reader -Decrease space and increase promotion. -Building relationships. <ul style="list-style-type: none"> -Helps to convey important data and educate & train students.
<p>LinkedIn Marketing Solution (Internet Industry)</p>	<p>LinkedIn Marketing Solutions focuses on providing value to marketers by giving them all the tools they need to do their job well.</p>	<p>Creative infographics serve up an endless stream of useful info to help marketers work smarter.</p>

<p>Jobvite (Recruiting Software company, Consultant industry)</p>	<p>Via data-heavy infographics that communicate the latest job market statistics, Jobvite synthesizes info and delivers it in an easy-to-consume manner, saving their incredibly busy readers time and energy.</p>	<ul style="list-style-type: none"> -Displaying an entire track of recruiting the best candidate -Save time & money -Access great candidates -Expert Legal opinion -Visual showcase to make rational decision making
<p>Digit (Finance Industry)</p>	<p>Colorful infographics showcase the smart money management.</p>	<ul style="list-style-type: none"> -Communicate financial ideas via colorful themes to drive people engagement. -Building relationships by filming the pain points and how to cope up with. -Fun at work
<p>WebFX (Marketing & Advertising)</p>	<p>Music and productivity</p>	<ul style="list-style-type: none"> -Use of soft & subtle color with various musical notes in the background to highlight the important elements. -Useful information of music and color for enhancing the brain productivity. -Perfect blend of colorful theme & music showcase to boost productivity at work.

<p>Classy (Crowd funding)</p>	<p>Classy used color psychology of festive red and green combination to bring nostalgia feelings in their presentations.</p>	<ul style="list-style-type: none"> -Financial charts with logical expression of colors & themes. -Perfectly communicate the home alone memories using best and unique color themes. -Building relationships -Increase credibility
<p>Fix (Beverage Industry)</p>	<p>Fix provided a very helpful campaign via infographics to have people avoid drinking outrageously.</p>	<ul style="list-style-type: none"> -Illustrative charts and figures to spot the per day limit of drinking -Effective health cautions -Prevention techniques
<p>Strathmore Mineral Corporation (Uranium Industry)</p>	<p>Effective use of infographics are illustrating the point that how nuclear power & energy are harnessed and used.</p>	<ul style="list-style-type: none"> -Spreading awareness of how US are using 25% of uranium of the world. -Statistical information of functional activities.
<p>Manta (Marketing Consultancy)</p>	<p>They base much of the information for their infographics on customer and company surveys</p>	<ul style="list-style-type: none"> -Effective analysis of surveys - Helps brands to in marketing their businesses -Adaptable & comprehensive outputs of detailed reports.

INDEX OF FIGURES

FIGURE 1: GOLD FIELDS, INTEGRATED REPORT 2019, P.80	33
FIGURE 2: GOLD FIELDS, INTEGRATED REPORT 2014, P. 10-11.....	34
FIGURE 3:TIS INTEC GROUP, INTEGRATED REPORT 2019, P. 10.....	35
FIGURE 4: MITSUBISHI CORPORATION, INTEGRATED REPORT 2019, P. 30-31	36
FIGURE 5: MITSUBISHI CORPORATION, INTEGRATED REPORT 2015, P. 36.....	37
FIGURE 6: DEVELOPMENT BANK OF JAPAN, INTEGRATED REPORT 2019, P. 71.....	38
FIGURE 7: HULAMIN, INTEGRATED REPORT 2018	39
FIGURE 8: SANFORD, ANNUAL REPORT 2015, p. 12.....	40
FIGURE 9: CLARIANT AG, INTEGRATED REPORT 2016	41
FIGURE 10: TIS INTEC GROUP, INTEGRATED REPORT 2019, P. 08.....	42
FIGURE 11: BIDVEST, INTEGRATED REPORT 2016	43
FIGURE 12: MARUBENI, INTEGRATED REPORT 2018, p. 08.....	44
FIGURE 13: GOLD FIELDS, INTEGRATED REPORT 2019, p.14	47
FIGURE 14: GOLD FIELDS, INTEGRATED REPORT, p.7	48
FIGURE 15: NOVO NORDISK, INTEGRATED REPORT 2019	50
FIGURE 16: ENEL, INTEGRATED REPORT 2019	54
TABLE 1: ANSWERS TO QUESTION 1	55
TABLE 2: ANSWERS TO QUESTION 2.....	56
TABLE 3: ANSWERS TO QUESTION 3.....	57
TABLE 4: ANSWERS TO QUESTION 4.....	58
TABLE 5: ANSWERS TO QUESTION 5.....	60
TABLE 6: ANSWERS TO QUESTION 6.....	62
TABLE 7: THEMATIC ANALYSIS OF PRIMARY DATA	63

REFERENCES

- Amit, R., Massa, L., & Zott, C. (2011). The Business Model: Recent Developments and Future Research. *Journal of Management*, 37(4), 1019-1042.
- Baldo, M. D., & Idowu, S. O. (2019). *Integrated Reporting: Antecedents and Perspectives for Organizations and Stakeholders*. Cham, Switzerland: Springer.
- Berg, B. L., & Lune, H. (2009). *Qualitative Research Methods for the Social Services*.
- Bloomfield, B. P., & Doolin, B. (2013). Symbolic Communication in Public Protest over Genetic Modification: Visual Rhetoric, Symbolic Excess, and Social Mores. *Science Communication*, 35(4), 502-527.
- Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Bryman, A., & Bell, E. (2007). Business Research Strategies. *Business Research Methods*, 226-238.
- Byrne, D. (2013). *The best American Infographics 2013*. Houghton Mifflin Harcourt.
- Clark, R. C., & Lyons, C. (2010). *Graphics for Learning: Proven Guidelines for Planning, Designing, and Evaluating Visuals in Training Materials*. John Wiley & Sons.
- Cook, V. (2013). *Second Language Learning and Language Teaching*. Routledge.
- Creswell, J. W. (1994). *Research Design: Qualitative and Quantitative Approach*. London: Publications.

- Crotty, M. (1998). *The Foundations of Social Research: Meaning and Perspective in the Research Process*. Sage.
- Davidson, A. (2014). *The Oxford Companion to Food*. Oxford University Press.
- De Villiers, C., Rinaldi, L., & Unerman, J. (2014). Integrated Reporting: Insights, Gaps, and an Agenda for Future Research. *Accounting, Auditing & Accountability Journal*.
- Eccles, R. G., Krzus, M. P., & Ribot, S. (2015). *The Integrated Reporting Movement: Meaning, Momentum, Motives, and Materiality*. John Wiley & Sons.
- Evergreen, S., & Metzner, C. (2013). Design Principles for Data Visualization in Evaluation. *New Directions for Evaluation*, 2013(140), 5-20.
- Fogel, R. M. (2013). *U.S. Patent No. 8,464,329*. Washington, DC: U.S. Patent and Trademark Office.
- Ford, A. (1993). *Composer to Composer: Conversations about Contemporary Music*. Hale & Iremonger.
- Hallikas, J., Karvonen, I., Pulkkinen, U., Virolainen, V. M., & Tuominen, M. (2004). Risk Management Processes in Supplier Networks. *International Journal of Production Economics*, 90(1), 47-58.
- Hassan, H. G. (2016). Designing Infographics to Support Teaching Complex Science Subject: A Comparison between Static and Animated Infographics.
- Heer, J., & Segel, E. (2010). Narrative Visualization: Telling Stories with Data. *IEEE Transactions on Visualization and Computer Graphics*, 16(6), 1139-1148.

- Hoeffner, J., & Shah, P. (2002). Review of Graph Comprehension Research: Implications for Instruction. *Educational Psychology Review*, 14(1), 47-69.
- International Integrated Reporting Council (IIRC). (2013). The International Framework.
- Ivins, W. M. (1969). *Prints and Visual Communication* (Vol. 10). MIT Press.
- Khazan, O. (2012). How Can Businesses Use Infographics. *The Washington Post*, April 8, 2012.
- Kostelnik, R. (1994). Ultraviolet Coatings for Wood Products: An Overview. *RadTech Rep*, 8, 16-20.
- Lankow, J., Ritchie, J., & Crooks, R. (2012). *Infographics: The Power of Visual Storytelling*. John Wiley & Sons.
- Lapadat, J. C. (2000). Problematizing Transcription: Purpose, Paradigm and Quality. *International Journal of Social Research Methodology*, 3(3), 203-219.
- Lester, P. M., & Ross, S. D. (2011). *Images that Injure: Pictorial Stereotypes in the Media*. ABC-CLIO.
- Mason, J. (2002). *Qualitative Researching*. 2nd Edition, Sage Publications, London.
- Meirelles, I. (2013). *Design for Information: An Introduction to the Histories, Theories, and Best Practices Behind Effective Information Visualizations*. Rockport Publishers.
- Murphy, T. (2018). *Infographics Powered by SAS: Data Visualization Techniques for Business Reporting*. SAS Institute.

- Naparin, H., & Saad, A. B. (2017). Infographics in Education: Review on Infographics Design. *The International Journal of Multimedia & Its Applications (IJMA)*, 9(4), 5.
- Nicholson-Cole, S., & O'Neill, S. (2009). "Fear Won't Do It" Promoting Positive Engagement with Climate Change through Visual and Iconic Representations. *Science Communication*, 30(3), 355-379.
- Oakley, A. (1998). Gender, Methodology and People's Ways of Knowing: Some Problems with Feminism and the Paradigm Debate in Social Science. *Sociology*, 32(4), 707-731.
- Oetting, J. (2015). The Science behind Why Our Brains Crave Infographics (In an Infographic). *Hubspot*.
- Ruottinen, A. R. (2014). Visual Design in the Creation of Educational Infographics: Case Study of Designing Infographics for E-learning.
- Sadgrove, K. (2016). *The Complete Guide to Business Risk Management*. Routledge.
- Schmandt-Besserat, D. (1980). The Envelopes That Bear the First Writing. *Technology and Culture*, 21(3), 357-385.
- Scott, H., Fawkner, S., Oliver, C., & Murray, A. (2016). Why Healthcare Professionals Should Know a Little About Infographics.
- Siricharoen, W. V. (2013, May). Infographics: The New Communication Tools in Digital Age. In the International Conference on E-Technologies and Business on the Web (ebw2013) (pp. 169-174).
- Smiciklas, M. (2012). *The Power of Infographics: Using Pictures to Communicate and Connect with Your Audiences*. Que Publishing.
- Smith, F., Flowers, & P. Larkin. (2009). *Interpretative Phenomenological Analysis: Theory, Method and Research*.

- Soffer, O., & Eshet-Alkalai, Y. (2009). *Back to the Future: An Historical Perspective on the Pendulum-like Changes in Literacy*. *Minds and Machines*, 19(1), 47-59.
- Swires-Hennessy, E. (2014). *Presenting Data: How to Communicate your Message Effectively*. John Wiley & Sons.
- Tempini, N. (2017). *Till data do us part: Understanding Data-based Value Creation in Data-Intensive Infrastructures*. *Information and Organization*, 27(4), 191-210.
- Trumbo, J. (2000). Essay: Seeing Science: Research Opportunities in the Visual Communication of Science. *Science Communication*, 21(4), 379-391.
- West, M. A. (2012). *Effective Teamwork: Practical Lessons from Organizational Research*. John Wiley & Sons.