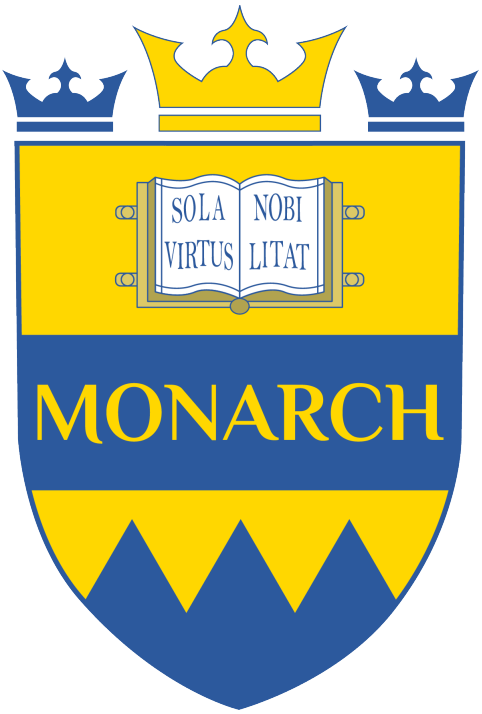

Monarch Business School Switzerland

Doctoral Research Proposal

Ethical and Socioeconomic Considerations in the Biotechnology Debate in Africa: Biosafety Communication as A Consensus Building Tool

PROGRAM:	Doctor of Social Science
SUBMISSION DATE:	11-March-2022
CANDIDATE:	Mr. Jean KEBERE, MA
REVIEWER:	Dr. Jeffrey Henderson, PHD

- Final Draft for Consideration of the Administration -

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LIST OF ABBREVIATIONS

AU	African Union
AUDA-NEPAD	African Union Development Agency-New Partnership for Africa Development
CBD	Convention on Biological Diversity
FAO	United Nations Food and Agriculture Organization
GM	Genetically Modified
GMO	Genetically Modified Organism
LMO	Living Modified Organism
SEC	Socioeconomic Considerations
UNEP	United Nations Environment Program
WHO	World Health Organization

ABSTRACT

A great deal of international financial and technical support has been provided to Africa to build the capacity of the continent to harness science, technology and innovation opportunities to address critical challenges like food insecurity and malnutrition. However, African countries still remain among the most heavily affected globally by food insecurity and malnutrition (Karikari, Quansah, Emmanuel, & Mohamed, 2015; Mbugua-Gitonga, Mwaura, & Thenya; Chambers, et al., 2014; Abah, Ishaq, & Wada, 2010; Makinde, Luke, & Ambali, 2009). Technologies like modern biotech are tools proposed by developed countries, especially the USA, and also emerging countries like China and Brazil, as a possible solution to climate change impacts and food production challenges (Suliman, Elhassan, Ali, & Kamal, 2015; Wambugu, 2014; Rock & Schurman, 2020; Midling, 2011; Scoones, Amanor, Favareto, & Qi, 2016; Cabral & Shankland, 2013; Abdallah, 2014; Schiek, Hareau, Baguma, & Medakker, 2016).

However, despite the great development opportunities offered by biotechnology in the agricultural sector, only a few African states have so far adopted this technology as a production tool. It is believed that this situation is due to the controversy over the safety of the technology, but more importantly, over non-safety aspects such as ethical and socio-economic considerations (SEC). (Juma & Serageldin, 2007; Brooks, 2013; Pixley, et al., 2019; Juma, 2016; Omobowale, Singer, & Daar, 2009).

The contemplated research aims to explore the importance of the ethical and SEC in the biotechnology debate in Africa and the role of the new construct of biosafety communication in addressing these non-safety aspects of the technology. The contemplated research investigates the role of the biosafety communication approach in relation with the often-ignored facets of ethical and SEC in biotechnology. The research will be explored through a triangulated research approach that will review the existing academic and scientific literature and content analysis of existing data, as well as interviews with key stakeholders in selected African countries.

Keywords: *Biotechnology Debate, Ethics, Socio-economy, Biosafety Communication, Consensus Building.*

1.0 INTRODUCTION

Agricultural biotechnology emerged in the past two decades as an innovative tool that could effectively address some of the critical agricultural challenges that neither organic farming nor conventional techniques could resolve (Juma & Serageldin, 2007; Singh, 2001; Ochieng & Ananga, 2019; Braimah, Atuoye, Vercillo, Warring, & Luginaah, 2017). However, after more than 20 years of use, the technology remains controversial despite extensive research that establishes the safety of GMOs throughout the years (Elshafei & Rawia, 2018; Mugabe, 2002). The contemplated research focuses on the debate around agricultural biotechnology looking at three different perspectives: ethical and other socioeconomic concerns, communication implications, and consensus building needs. The research seeks to understand the way forward through an appropriate science communication approach addressing the root causes of the ethical and socioeconomic dimensions of the technology. The contemplated research strives to explore more profoundly the key factors underpinning the new construct of biosafety communication that could help bring together entrenched opponents and proponents, particularly in the African context.

1.1 Ethical and Socioeconomic Dimensions of Biotechnology

Modern biotechnologies are regulated at the international level under the Convention on Biological Diversity (2000) and its protocols, i.e., the Protocol of Cartagena on Biosafety and the Nagoya-Kuala-Lumpur Supplementary Protocol on Lability and Redress. Most parties to the CBD and the Protocols have also adopted subsequent laws to regulate

the different facets of the development and use of biotechnology products at the national level. These measures form the concept of biosafety. Thus, biosafety essentially deals with the legal and safety aspects of biotechnology. Indeed, according to the FAO (2011) and UNEP, biosafety is a:

> "set of measures or actions addressing the safety aspects related to the application of biotechnologies and the release into the environment of transgenic plants and organisms, particularly microorganisms, that could negatively affect plant genetic resources, plant, animal or human health, or the environment" (p. 1).

Due to the nature of the technology and especially the gene transfer that it implies, biotechnology has been associated with mistrust and fear since its emergence (Juma, 2005; Quaye, Yawson, Yawson, & Williams, 2009). In the 1990s, the controversies were heightened in the agricultural sector with the development of the first GMOs. More than 20 years later, the debate is still pertinent with increasingly entrenched opponents and proponents. Juma (2005) highlights that "developing countries, which need biotechnology the most, are the least involved in its development and, therefore, the most vulnerable to the impacts of debates originating from the industrialized countries" (p. 266). Many studies suggest that beyond scientific and safety concerns, opposition to GMOs is also strongly based on moral and ethical issues (Adenle, 2011; Ezezika & Daar, 2012; Racovita, et al.; Wickson, et al., 2017).

1.2 Evolving Science Communication: From Deficit to Participation

Since the 1970s, science communication has evolved through different phases, from a one-way communication method to a Public Relation and partnership approach. In the 1970s, people felt confident to leave their fate in the hands of authorities and scientists but since the 1980s, they feel more critical of being excluded from the decision making process (Covello & Sandman, 2001; Trench & Bucchi, 2010). For Covello and Sandman (2010), the difference in risk perception between scientists and the public has prompted the need for risk communication. Since the 1980s, risk communication has gone through four stages: 1. pre-risk communication that tends to ignore the public, 2. a more public relations approach, 3. emphasis on the outrage dimension in communication, and 4. treating the public as a partner (Adler & Kranowitz, 2005; Grunig & Hunt, 1984).

1.3 The Need for Consensus Building

Experts have identified trust as key factor for public understanding and acceptance of biotechnology innovations. (Adler & Kranowitz, 2005; Covello & Sandman, 2001) That is, business can be associated with mistrust, as pursuing ethical principles is often viewed as oppositional to corporate self-interest (Smith, 2005; Eaton, 2004). Interestingly, Eaton (2004) shows that, in fact, it is in the interest of companies to take account of the social implications of their activities. He also emphasizes that "companies that are routinely ethical can gain a reputation that can improve organizational effectiveness" (p. 2). It is today largely admitted that business ethics and the principle of social responsibility contribute to build reputation, a pre-condition for

trust and credibility. (Eaton, 2004; Oloo, Maredia, & Mbabazi, 2020; Ezezika & Daar, 2012).

Building on the past experiences of science communication and risk communication, biosafety communication strives to incorporate all the dimensions of the new approach to ethical business communication. According to Sonnino and Sharry (2017), key objectives of biosafety communication include building trust in institutions and making "socially robust decisions" (p. 194). In the African context, factors like access to information seem also critical, due to the multiplicity of languages and the poor literacy rate. It would be then essential to agree with communities on the best information sharing platforms to adopt.

2.0 THE PROVISIONAL RESEARCH QUESTION

With the above discourse in mind the provisional research question has been developed as follows:

> "What are the characteristics of a new conceptional biosafety communication framework that addresses ethical and socioeconomic considerations to better secure consensus in the biotechnology debate in Africa?"

3.0 THE RESEARCH RELEVANCE

The COVID-19 pandemic, global warming and the ecological crisis are increasingly deepening the mistrust towards science and new technologies such as modern biotechnologies which are often viewed as humans trying to deregulate the natural course of creation (Wickson, et al., 2017; Gidamis & Chove, 2009; Gastrow, Roberts, Reddy, & Ismail, 2016). Moreover, with the ubiquity of the media, social networks and the multitude of digital mobile platforms, the world has become more than ever a global village and transparency in any cutting-edge scientific initiative or technological business is expected. The contemplated research will explore how trust and consensus on biotechnology may be built in this context and what may be the role of biosafety communication in this effort. The research will ultimately investigate how biotechnology ethics and safety assurance could be factored into a comprehensive biosafety communication approach to strive for improved moderation within the debate at the supra-national level.

4.0 CONTRIBUTION TO EXISTING KNOWLEDGE

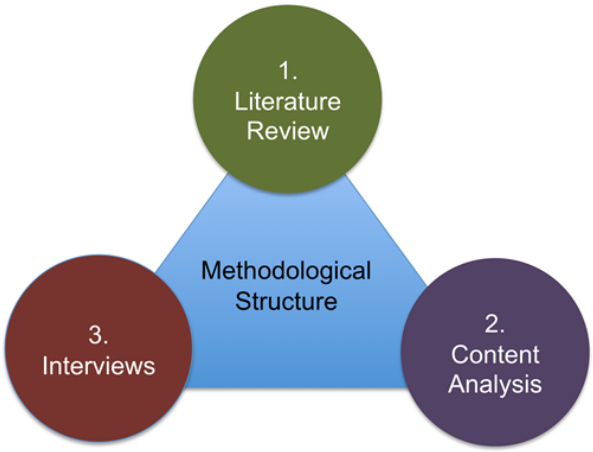
Various studies have focused on the biotechnology situation in Africa and the public perception of the technology. Most academic publications and books from experts shed light on the science behind the technology, the regulatory aspects, and public acceptance issues ((Huffman & Tegene, 2002; Oladipo, Ibrahim, Adeboye, & Kuiper, 2020; Henry, Njoka, & Halimu, 2010; Mnaranara, Zhang, & Wang, 2017; Hulela,

Maruapula, & Peters, 2020). However, little comprehensive research has gone beyond the safety and the public perception aspects to thoroughly investigate the intertwined roles of ethical and socioeconomic considerations as well as communication. The contemplated research will seek to fill this gap and to better understand how a comprehensive biosafety communication approach could positively influence the debate. It will help key stakeholders including decision makers, regulators, industry, scientists and opinion leaders go beyond the current stalemate observed in many African countries and reshape the scope of the debate taking account of the views and interests of all parties involved.

5.0 THE RESEARCH METHODOLOGY

Figure 5.0 shows the aim of the contemplated research as responding to the provisional research question by way of a triangulation of research data, being: 1. literature review of existing seminal academic authors (desk research); 2. content analysis of existing institutional data and information (desk research), and; 3. interviews with stakeholders including industry, regulators; decision makers and consumers (field research). The contemplated research will employ a qualitative methodological approach to data collection which is often the most useful approach for exploring knowledge, attitudes, beliefs, behaviors and communication needs and preferences (Moustakas, 1994; Krathwohl, 2009; Flick, 2009; Kumar, 2011; Creswell, 2009).

FIGURE 5.0
Methodological Triangulation



Source: Monarch Business School Switzerland

5.1 Stakeholder Schema & Participants

Throughout the contemplated research, a level of analysis methodology will be maintained that seeks to focus on the critical considerations facing the groups shown below as illustrated within Table 5.1. The field research component consists of semi-structured interviews and is obtained in two parts. The interviews will primarily comprise the Micro and Meso sub-groups. Participants at the micro level will include: regulators, scientists, farmers, and consumers. At the meso level, participants will be individuals considered knowledgeable of the biotechnology and/or biosafety domains with managerial and leadership experience of a minimum of five years in organizations and institutions such as National Biosafety Authorities, National Scientific Research Centers, Industry, Consumer Organizations, and Civil Society Organizations. An additional

cursory examination of a handful of interviews at the Macro level in order to provide greater context to the research findings will be added if time and budget resources permit.

TABLE 5.1
Level of Analysis & Stakeholder Schema

Level	Type	Group 1	Group 2	Stakeholders
MACRO	Societal	-	-	Ministries of Scientific Research or Ministries of Environment depending on the country
MESO	Organizational /Institutional	25	15	National Biosafety Authorities, National Scientific Research Centers, Industry, Consumer Organizations, Civil Society Organizations.
MICRO	Individual	25	15	Regulators, Scientists, Farmers, Consumers
	Total Respondents	50	30	

Source: Adapted from Monarch Business School Switzerland

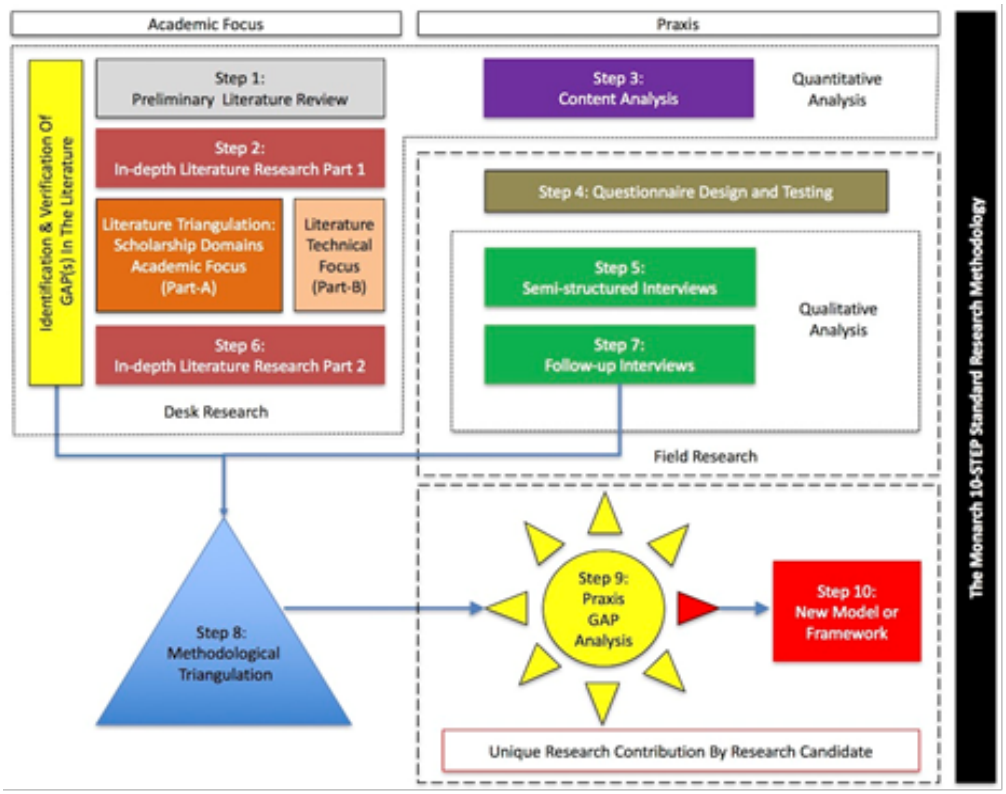
5.2 Phenomenological Research

The qualitative research process will be based upon a phenomenological research method of the lived experience of participants. This approach will permit the construction of a universal meaning of the experience and arrive at a better understanding of the phenomenon. Since the research aims to resolve a gap in knowledge, a description of the nature of the phenomenon is paramount. A phenomenological methodology is considered to be most closely aligned with the objectives of the research (Moustakas, 1994).

5.3 Research Process Flow

Figure 5.3 illustrates the steps within the Monarch Standardized Research Process Flow. The steps that will be followed within the contemplated research are:

FIGURE 5.3
Monarch 10-Step Standard Research Process Flow



Source: Monarch Business School Switzerland

STEP 1: PRELIMINARY LITERATURE REVIEW

The research begins with a survey and review of the works of the seminal authors within the academic scholarship domains identified in Section 6.0 which include theories on Ethics, Communication and Trust. The preliminary literature

review provides a framework to the contemplated research, identifies key concepts and theories and develops a better understanding of the nexus of the academic scholarship domains.

STEP 2: IN-DEPTH LITERATURE REVIEW – PART 1

An in-depth review and critique of the works of the seminal academic authors and quasi-academic works within the three above academic scholarship domains will be completed to provide a solid academic foundation to the contemplated research. The "Gap in the Literature" will be presented and clearly identified in relation to the Main Research Question.

STEP 3: CONTENT ANALYSIS

An analysis based on data obtained from annual reports, white papers, supporting commercial documents and other commercial data sources will be examined as well as information found in professional journals, published manuscripts and documents.

STEP 4: QUESTIONNAIRE DESIGN & TESTING

The development of the interview questionnaire will be informed by the review of the academic literature and technical documents. The interview questionnaire will be tested with several volunteers in advance of the interviews to perfect the document from a flow and timing standpoint and ensure that questions are clear, concise and have a direct bearing on the focus of the contemplated research.

STEP 5: SEMI-STRUCTURED INTERVIEW PROCESS

All interview participants are expected to be knowledgeable with respect to the contemplated research. A total of 50 face-to-face interviews will be conducted with participants representing a sample from each selected stakeholder group (see Section 5.1). Interviews are expected to be 30-45 minutes in length and will be recorded electronically or manually. Telephone or Skype interviews will be used if face-to-face interviews are not possible.

STEP 6: IN-DEPTH LITERATURE REVIEW – PART 2

To add more specificity and currency to the research analysis, a second in-depth literature review will be completed. The Part 2 literature review will also be informed by the interview responses from Step 5.

STEP 7: FOLLOW-UP INTERVIEWS

To achieve a more specific view informed by the first interviews and the second literature review, a sub-set of 30 respondents representing a sample from each selected stakeholder group, selected from the first-round interview sample will participate in follow-up interviews. The timing and interview protocols will be similar to those listed in Step 5.

STEPS 8 AND 9: TRIANGULATION OF THE DATA AND GAP ANALYSIS

A triangulation of the research data informed by the literature review, content analysis and interview responses will be completed. This will assist in determining whether the existing academic knowledge is congruent with the

practical application in the field. The result of this analysis should determine whether a Praxis Gap exists between the academic (theoretical) and the practical (applied) domains.

STEP 10: DEVELOPMENT OF NEW CONCEPTUAL MODEL OR FRAMEWORK

Building on the Gap Analysis completed in Step 9, an analysis of the existing models and frameworks within the academic domain will be considered. This analysis will evaluate whether the frameworks or models sufficiently address the requirement for practical application in the field or whether they should be improved or modified.

5.4 The Data Analysis

The qualitative research data will be analyzed using MaxQDA software. Questionnaires will be pre-tested to ensure the accuracy and relevance of the questions. Interviews will be face-to-face, audio recorded and are expected to be thirty to forty-five (30-45) minutes in length. The objective is to gain an in-depth understanding of the roles, missions, perceptions, values, beliefs, habits and in-work behaviors. Telephone interviews will be used in the event that physical interviewing is not possible due to time constraints or geographical considerations. Interviews will be conducted in English when possible and in French for which English transcriptions will be made available.

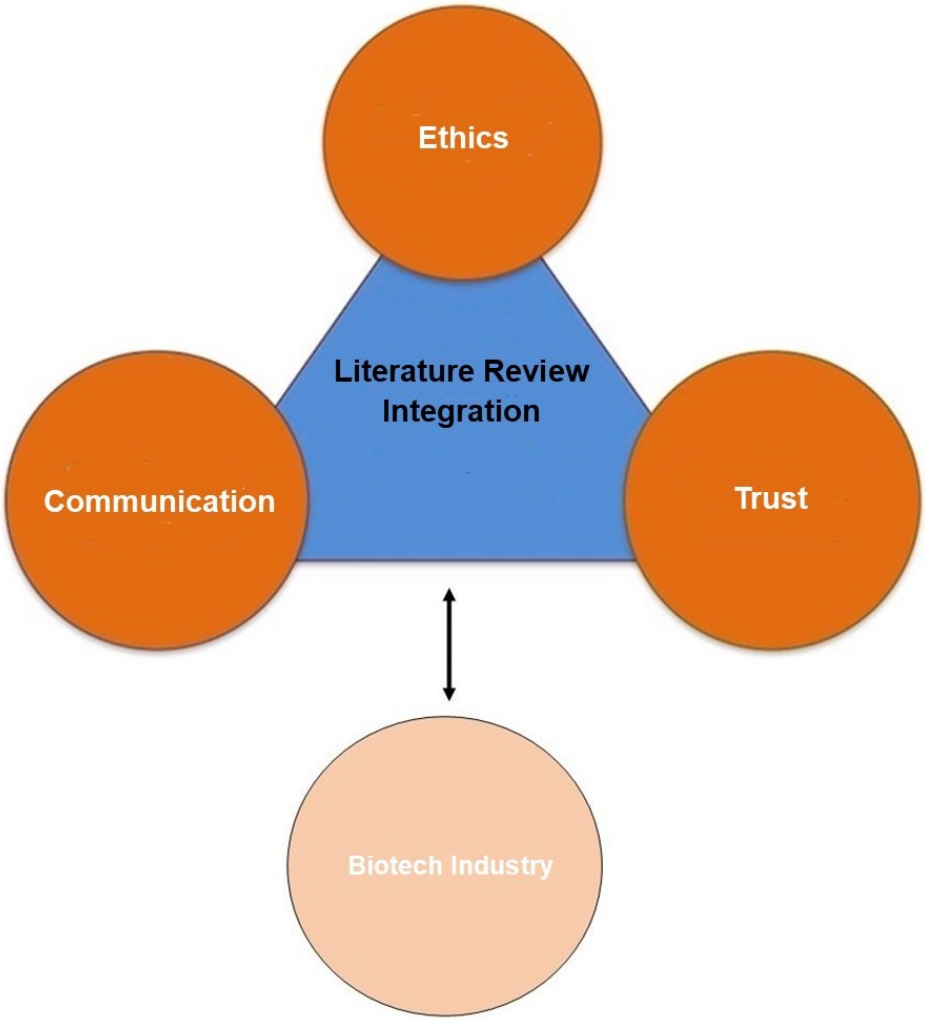
5.5 Ethical Considerations

the research. Anonymity will be granted to participants and responses will be kept confidential. No vulnerable population will be involved in the study, i.e.: minors, non-literate individuals or individuals with a disability.

6.0 LITERATURE REVIEW

The theoretical framework will be structured based on an integrative literature review approach. The selection of this distinctive form of research will assist in generating new knowledge on biosafety communication in relation with theories on trust and ethics. The literature review will allow a fusion of thematical and historical literature review approaches to modern perspectives in biosafety communication theories, theories of ethics and trust to extract important determinants of a comprehensive and operationally functional biosafety communication approach. As shown in Figure 6.0 below, the literature review will investigate the following three research domains and their relevance to biotechnology and biosafety: theories of ethics, theories of trust, and theories of communication. An analysis of the intersection of the three domains of knowledge, the nexus of the research, is believed to be of critical importance to the better understanding of the phenomenon. The above-mentioned domains present a reinforcing relationship, which will assist with the development of knowledge.

Figure 6.0
Literature Review Integration



Source: Monarch Business School Switzerland

6.1 Theory of Ethics

In the Ancient Roman era, Cicero (1887) highlighted the tension between moral values and profit gains and laid the foundation of classical ethics. In the 18th Century, Kant (2002) analysed morals and ethics and developed the concept of categorical

imperatives which refer to the adequate behaviour suggested to human cousciousness. Other Philosophers in the subsequent decades, led by Bentham (2000) and Stuart Mill (2001) launched the concept of utilitarism. The Kantian theory and the utilitarian approach constitute the underlying principles of modern ethics (Eaton, 2004).

6.1.1 Thompson's Analysis of Risk Ethics

Thompson (2018) makes the distinction between ethics in the singular which, in a philosophical acception, is devoted to the critical analysis of individual and social behaviour, and ethics in the plural which refers to rules for practice thought to be essential for a profession. However, he recognizes that since key aspects of ethics (singular) involve the emprirical study of ethics (plural), the two concepts are not fundamentally distinct. From this interpenetration of the two forms of ethics, he analyses how "transitions with changing views on gender, race, and sexuality have led to extensive debates", (p. 36) with both practical and scholarly significance. He then applies this scholarly analysis to the concept of risk in science. For Thompson there is no ethics-free risk concept since "risk is definable only in reference to populations" (p.37), even though many scientists tend to think that risks are objective features.

Thompson is of the opinion that a balanced stance is needed between the experts' conception of risk and the "social contructionnist" point of view. For Thompson, it would be illusory to think that science does not take sides on ethical issues. Some experts and decision makers do adopt an utilitarian approach, making the best available trade-off between risk and benefit. Other experts from a deontological (Kantian) perspective think

that even the most useful scientific experiment that could affect humans should secure their informed consent first, otherwise, it would be totally unethical.

6.1.2 Eaton and Business Ethics

Different authors have also identified ethics as a key element of social life as well as for successful business. Often, people asociate business with mistrust since pursuing ethical principles in doing business may look like acting against corporate self-interest (Smith, 2005; Eaton, 2004). Eaton (2004) suggests it is in the interet of companies to take account of the social implication of their activities; “companies that are routinely ethical can gain a reputation that can improve organizational effectiveness”, (p. 2). Such companies are more attractive to high-qualified workers for instance. Beyond this utilitarian justification to ethics, in some situations, “moral choice will be difficult, expensive, or will harm the company somehow. In such cases, why take the ethical road?” (p.2). Eaton is of the same view as Cicero that nothing unethical is ever advantageous. In this context, managers have to always look for results that are both ethical and advantageous for their companies and arrive at optimal solutions. Ultimately, justice should be applied in the business context, with a delicate balance between the teleological and the deontological approcahes.

6.2 Theory of Trust

It appears that trust within the scholarly literature is strongly associated to belief, confidence, truthworthiness, commitment, reliability and shared values in the relationships between individuals or businesses (Moorman, Deshpande, & Zaltman,

1993; Anderson & Weitz, 1992; Kalafatis & Miller, 1996; Rotter, 1967). Rotter (1967) describes trust as a generalised expectation in society. The concept is defined by Moorman, Deshpande, and Zaltman (1993) as the willingness to rely on a partner on whom one has confidence. Gunlach and Murphy (1993) suggest that trust conveys the notion of confidence in interpersonal and inter-organizational behaviour and is determined by the level of responsibility and commitment (Kalafatis & Miller, 1996). Trust is a key element of what Bourdieu (1986) calls “social capital” and is a critical asset for success in social life as well as in business.

6.2.1 Trust and the Acceptance of Change or Novelty

Trust appears to be a key factor in the acceptance of novelty or a change in routine life (Lippert & Davis, 2006; Susskind, McKearnen, & Thomas-Lamar, 1999). Lippert and Davis (2006) suggest that the adoption of novelty and technology products requires technology trust and interpersonal trust, coupled with planned change initiatives. Hobbs and Goddard (2015) also point out the importance of institutional trust which is a shared responsibility across both public and private sector actors. Drees (2009) invokes the religious dimension of trust in relation to technology, especially when technology undertakes to reshape the living and to interfere in the course of the nature. Other authors identify trust as fundamental in building consensus (Adler & Kranowitz, 2005; Selin, Pierskalla, Smaldone, & Robinson, 2007; Liu, Friedman, Barry, Gelfand, & Zhang, 2012; Matz & Ferenz, 2005). Trust and consensus require adequate stakeholder engagement, and mutual learning. In the African context, trust and consensus building could follow the approach of issue management under the palaver tree (Scheid, 2011;

Dubost, 2020). This approach focuses on dialogue based on truthworthiness and mutual support.

6.2.2 Social Learning as Key Factor of Trust in Complex Initiatives

The rapid changing environment and incumbency, in particular in the science and technology domains, make people reluctant towards new methods and techniques (Juma, 2016; Schumpeter, 1942). The adoption of novel pratices and technologies requires acceptance from different stakeholders and users. To strive to resolve the mistrust and suspicion in complex initiatives like environmental management, Schusler, Decker and Pfeffer (2003) propose the social learning approach. They define social learning as a:

> "learning that occurs when people deliberately engage each other, sharing diverse perspectives and experiences to develop a common frame of understanding and basis for joint action" (p. 311).

Selin, Pierskalla, Smaldone, and Robinson (2007) posit that social learning could be an effective participatory approach, in particular in exploratory projects with uncertainties and complexity. This approach is quite applicable in the emerging technology contexts.

6.3 Theory of Communication

Communication is believed to be a concept difficult to define. According to Peters (1999) this difficulty is understandable as communication refers both to a universal phenomenon and a specific academic discipline. Eadie and Goret (2013) highlight that

the concept of communication originates from the Platonic and Aristotelian definitions of rhetoric. Aristotle particularly refers to rhetoric as how humans influence each other ethically in public forum. Building on this aristotelian construct, Habermas (1989) developed the concepts of discourse ethics, the dialogue in the public sphere as well as the consensus theory of truth. These concepts suggest the need for true and ethical engagement in human relations for a public-minded consensus.

The theories on communication were clearly articulated from Lippmann (1922), through the public opinion concept and Lasswell (1927) who highlighted the power of propaganda in mass media. An elaborated communication model was developped by Shannon and Warren (1964) who identified key elements of the communication process: an information source, a transmitter, a channel, a receiver and a medium. One of the key challenges underlined by Shannon and Warren (1964) for efficient communication is the noise element that could interfere between the transmitter and the receiver. They pointed out the need for reajustment through a feedback mechanism to make sure that the original message is not dramatically distorted in the process.

6.3.1 Communication as Knowledge Sharing Vehicle

With the development of science and technology, particularly since the 1970s, communication has progressively been used to improve public understanding of complex scientifical concepts. Scientists and researchers have used different communication approaches to engage the public, and thus was generated the concepts of science communication and risk communication. Science communication “concerns

the communication between communities of scientists, interest groups, policy makers and various public" (Trench & Bucchi, 2010, p. 1). Indeed, it was observed that people who felt excluded from the science and technology development process were keen to oppose such initiatives (Covello & Sandman, 2001; Grunig & Hunt, 1984). Research and studies strongly suggest an interactive and participatory approach in communication is needed to build consensus around emerging technologies to facilitate their adoption (Sonnino & Sharry, 2017; Sharry, 2013; Outram, 2010; SCIFODE and RUFORUM, 2011; Sheppard, Janoske, & Liu, 2012; Koch & Massey, 2011; Gidamis & Chove, 2009; Falade, Batta, & Onifade, 2020; Ezezika & Daar, 2012; Karikari, Yawson, & Quansah, 2016; Lukanda, 2018).

6.3.2 The Emerging Concept of Biosafety Communication

Building on the construct of science and risk communication, biosafety communication strives to incorporate all dimensions of the new approach to ethical business in biotechnology innovations and in the relating communication approach. According to Sonnino and Sharry (2017), "the promotion of public participation in the decision-making processes exceeds the function of the communication of risks inherent to GMO release, assuming a broader meaning, better captured by the term biosafety communication" (p. 194). For them, the key objectives of biosafety communication include building trust in institutions and making "socially robust decisions" (p. 194). Sharry (2013) also highlights that, "the broad objective of the biosafety communication is taking a proactive and participatory approach to public-oriented policymaking." Another key feature underlined

by Sonnino and Sharry (2017) is that biosafety communication, unlike science and risk communication, is administrated by fairly neutral sources for the sake of reliability. This approach to science communication appears more comprehensive and inclusive. However, in the African context, multiple challenges will need further analysis including access to information due to the multiplicity of languages and the poor literacy rate (Outram, 2010; SCIFODE and RUFORUM, 2011).

7.0 RESEARCH PLAN

The field interview process is to be completed over a 3-month period from January 2023 to April 2023 for Step 5 and from July 2023 to August 2023 for Step 7, after which the data will be analyzed and the manuscript will be completed. Each face-to-face or telephone interview will last thirty (30) to forty-five (45) minutes at a location and time that is amenable to participants. Interviews will be conducted in Burkina Faso, Kenya and Zambia. Participants will be selected through clustered and snowball sampling.

8.0 RESEARCH TIMELINE

The contemplated research is expected to conclude over a 36-month period. Although every effort will be made to implement the steps within the research timeline, variation in the plan may be encountered due to variables beyond the control of the researcher. Variables that may have a significant effect on the research timeline and which are beyond the control of the researcher are resource availability and accessibility and

availability of participants. These variables could result in a modification of travel schedules and prolongation of the field research stages.

TABLE 8.0
Research Timeline

		Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
PART A	Initial Literature Search	■	■										
	Main Literature Search - Part 1			■	■								
	Research Plan				■								
	Section 1 - Background				■	■							
	Section 2 – Supporting Literature					■							
	Content Analysis					■							
	Offical Submission of Chapters 1, 2, 3 and Slide Presentation To Obtain Authorization To Continue On To Field Research												
PART B	Interviews Part 1						■						
	Main Literature Search - Part 2						■	■	■				
	Interviews Part 2							■					
	Section 3 - Synthesis								■	■			
	Section 4 - Recommendations									■	■		
	Manuscript Perfecting & Submission									■	■	■	■

Source: UGSM-Monarch Business School Switzerland

9.0 RESEARCH BUDGET

The research will be privately funded. No additional resources or funding will be requested of UGSM-Monarch Business School Switzerland. No funds will be received from any public body in carrying out the contemplated research. The total budget of the

research exhibited in Table 9.0 is approximately 12,600 Euros. The budget is presently fully funded and research may begin immediately upon approval.

TABLE 9.0
Research Budget

	In Euros
Books and articles purchases	1,800
Digital recorder and software purchases	600
Travel and accommodation expenses	4,200
Conferences, workshops & webinars	2,500
Article publications	3,000
Manuscript publication	500
TOTAL	12,600

10.0 RESEARCH PROPOSAL APPROVAL

The contemplated research has been approved by the Administration and the Candidate may commence the research immediately. The Candidate is not to deviate from the proposed research plan unless expressly confirmed by both the Supervisor and the Administration in written form.

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