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A Systematic Literature Review of Modern Slavery Through Benchmarking Global Supply Chain

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Abstract

Purpose: The globalisation of supply chains has contributed to modern slavery by degrading labour standards and work practices. The inherent difficulties involved in monitoring extremely fragmented production processes also render workers in and from developing countries vulnerable to labour exploitation. This research adopts a benchmark methodology that will help examine the inherent modern slavery challenges.

Research design: This study examines how the benchmark model, including governance, risk assessment, purchasing practice, recruitment, and remedy of victims, addresses supply chain modern slavery challenges. The proposed hypotheses are tested based on the reoccurring issues of modern slavery in global supply chains.

Findings: Estimations suggest that modern slavery is a growing and increasingly prominent international problem, indicating that it is the second largest and fastest growing criminal enterprise worldwide except for narcotics trafficking. These social issues in global supply chains have drawn attention to the importance of verifying, monitoring, and mapping supply chains, especially in lengthy and complex supply chains. However, the advent of digital technologies and benchmarking methodologies has become one of the existing key performance indicators (KPIs) for measuring the effectiveness of modern slavery initiatives in supply chains.

Originality: This review provides an understanding of the current situation of global supply chains concerning the growing social issue of modern slavery. However, this includes various individual specialities relating to global supply chains, modern slavery, socially sustainable supply chain management, logistic social responsibility, corporate social responsibility, and digitalisation. Furthermore, the review provided important implications for researchers examining the activities on benchmarking the effectiveness of the existing initiatives to prevent modern slavery in the supply chains.

Keywords: supply chains, modern slavery, digital technologies, benchmarking methodologies, social sustainability

1. Introduction

This working paper reviews the major theoretical and conceptual approaches to modern slavery. In addition, the paper analyses how researchers, practitioners, and authorities have conceived of modern slavery as an aspect of global concern. The paper surveys the main approaches in contemporary slavery studies, arguing that diverse practices can aid researchers in pursuing new lines of inquiry and theorisation regarding modern slavery in supply chains. Consequently, the global supply chain has been overwhelmed with the issue of labour exploitation and unethical activities (Quarshie and Salmi, 2014; Yusuf *et al.*, 2014; Gold *et al.*, 2020). However, benchmarking initiatives will help mitigate supply chain disruptions by identifying appallingly implemented interventions and actionable insights through a holistic approach (Wong and Wong, 2008). Gold *et al.* (2015) study indicated that

globalisation had increased international trade and cross-border sourcing of goods and services. Therefore, the use of slave labour is present in all industries. The conceptual underpinnings of unethical supply chain standards identify slavery as individuals coerced by physical, economic, and social means to involuntarily engage in work-related activities under exploitative harsh, poor, and unhealthy working conditions for financial gains (Bales and Trodd, 2013; Bodenheimer, 2018). The violation of workers' rights persists in today's corporate supply chains. Datta and Bales (2013) highlighted that identifying the various forms of labour exploitation in the supply chains and tackling them is an essential dimension of corporate social performance. However, every form of modern slavery harms total economic output and social development (Huq *et al.*, 2016; Yawar and Seuring, 2017). The research by LeBaron (2014) identified the deepening concerns about forced labour and slavery, which has paralleled the rapid growth of the world's biggest retail and brand companies in the era of globalisation. However, the risk of slavery and forced labour in global supply chains is now significant. Verite's (2014) study found that the Know the Chain benchmark methodology measures the effectiveness of modern slavery action plans for eradicating forced labour.

1.1 Objectives

The purpose of this document is to encourage managers, public procurement practitioners, decision-makers, and academic experts to:

- Understand why promoting respect for human rights in business supply chains is essential.
- Develop a strategic benchmark approach to human rights due diligence by increasing knowledge and promoting good practice.
- To provide a knowledge base through benchmarking existing initiatives to help mitigate the risk of human rights abuses in supply chains.

2. Methodology

Systematic literature reviews aim to find as much relevant research on the research question as possible and to use direct methods to map out what can reliably be said based on these studies (Cruz-Benito, 2016; Tikito *et al.*, 2019; Kruse, 2019). Denyer and Transfield (2006) found that conducting reviews of existing research is a critical competence for a scholar in the management field to position their contribution to knowledge and construct reasoned logical, and substantiated arguments. According to Moher *et al.* (2009), the value of a systematic review depends on the clarity of reporting. However, the systematic review methods should be straightforward and organised to produce diverse and reliable results of

modern slavery in global supply chains. In their study, Geng et al. (2022) discovered how individuals fall victim to exploitation due to the broadness of contemporary slavery and high demands for labour and services facilitated by economic and political changes and the social environment. Victim demographics are also diverse, similarly impacted by change based on shifts in the global economic and political landscapes, and traffickers and exploiters take advantage of the socio-economic uncertainty of the individuals and groups made vulnerable by these shifts (LeBaron, 2014).

Adopting a systematic review for this research minimises bias and provides reliable findings to draw conclusions and ensure justification for further research (Moher *et al.*, 2009; Livinski *et al.*, 2015; Kruse, 2019). In this study, the authors use a systematic literature review to carefully analyse the papers covering current technological developments and challenges inherent in the global supply chains concerning mapping out issues of modern slavery within long and complex supply chains published from 2011 to 2022. Lame (2019) defined a *systematic literature review* as synthesising scientific evidence to answer a particular research question in a transparent and reproducible way while seeking to include all published evidence on the topic and appraising the quality of this evidence.

Contemporary supply chains are emerging as critical areas for urgent attention in modern slavery research (LeBaron, 2013). This research will summarise and identify the inherent challenges of long and complex global supply chains for labour exploitation. However, the global supply chain's complexity can create a risk that leaves workers vulnerable to exploitation (Martin-Ortega and O'Brien, 2017). Over the years, lead firms have employed benchmark methodologies to improve social sustainability by comparing best practices from top-developed countries (Wu and Pagell, 2011). As well, Meehan and Pinnington (2021) provided insight through strategic ambiguity to tackle modern slavery in global supply chains. The research followed the systemic literature review and mapping in the literature review pattern by Cruz-Benito (2016), including the scientific process of academic literature search and information retrieved assessment proposed by Kruse (2019). The review utilises four main steps of systematic review (planning and source identification, selection and extraction, evaluation, and category generation).

2.1. Planning the systematic literature review and mapping

This systematic review aims to contribute to an informed debate on how best to address modern slavery issues within global supply chains' overall agenda. Essentially, the study outlines two research questions to support the intended goal of the review.

- RQ 1. What are the current technological innovations and benchmarking methodologies for managing and preventing modern slavery in global supply chains?
- RQ 2. How effective are the existing global anti-trafficking legal framework and multi-agency partnership in identifying modern slavery to provide justice and remediation to victims in global supply chains?

A research question is a specific inquiry to which the research seeks to respond. It resides at the core of systematic investigation and helps clearly define a path for the research process (Mattick *et al.*, 2018). In this review, the first research question addresses the inherent and current issues identified in various academic literature. The motive is to understand how effective the anti-trafficking framework and the multi-agency partnerships are in identifying, preventing, and managing modern slavery in the global supply chain. LeBaron (2014) indicated that the recent wave of government legislation drives corporate involvement in antislavery efforts and raises awareness about the links between consumer products and forced labour. The second research question seeks to identify recent activities and research on benchmarking global supply chain and digital technology innovations to tackle and manage modern slavery in supply chains.

Furthermore, the study reviews the research questions after establishing the current research works relevant to the topic of interest and potential importance to answering the specific. A systematic search of peer-reviewed literature on modern slavery in global supply chains assisted in identifying search databases and strings (Cruz-Benito, 2016; Moher *et al.*, 2009; Transfield *et al.*, 2003). According to Lame (2019), Literature reviews and evidence syntheses are essential research products that help us advance science incrementally by building on previous results.

2.1.2. Literature sources

For a detailed review of existing literature, Figure 1. displays the methodological design and strategic steps of the literature review, including the keywords in the literature search and relevant literature sources used. The decision to review relevant literature will assist the researcher in understanding the fundamental social issues of global supply chains. Furthermore, it will help the researcher gain knowledge of the current study on modern

slavery in the global supply chain by comparing different research studies and identifying the gaps in knowledge to facilitate solutions and future recommendations. The tangible steps are source identification, selection and extraction, evaluation, and category generation.

The first step is source identification, selecting the literature on modern slavery in global supply chains. Accordingly, this step will identify the keyword, title and abstract (Liu *et al.*, 2017). Therefore, the second step is resource selection and extraction. This step will extract the target literature from the literature retrieved in the first step. Only studies with relevant or direct links to modern slavery in global supply chains will be selected.

Furthermore, the third step is source evaluation. Among the various definitions of a socially sustainable supply chain, the most central idea is ethical procurement, ethical supplier selection, supply chain mapping, and modern slavery disclosure measures to identify any issue of modern slavery that encompasses human trafficking, child labour, and forced labour (Tachizawa and Wong, 2014). For example, business models configured around modern slavery is evident in various sectors. They are widespread in those that are labour intensive and where labour costs comprise a high proportion of low value-added activities characterised by high levels of subcontracting and intermediaries (LeBaron and Rühmkorf, 2021).

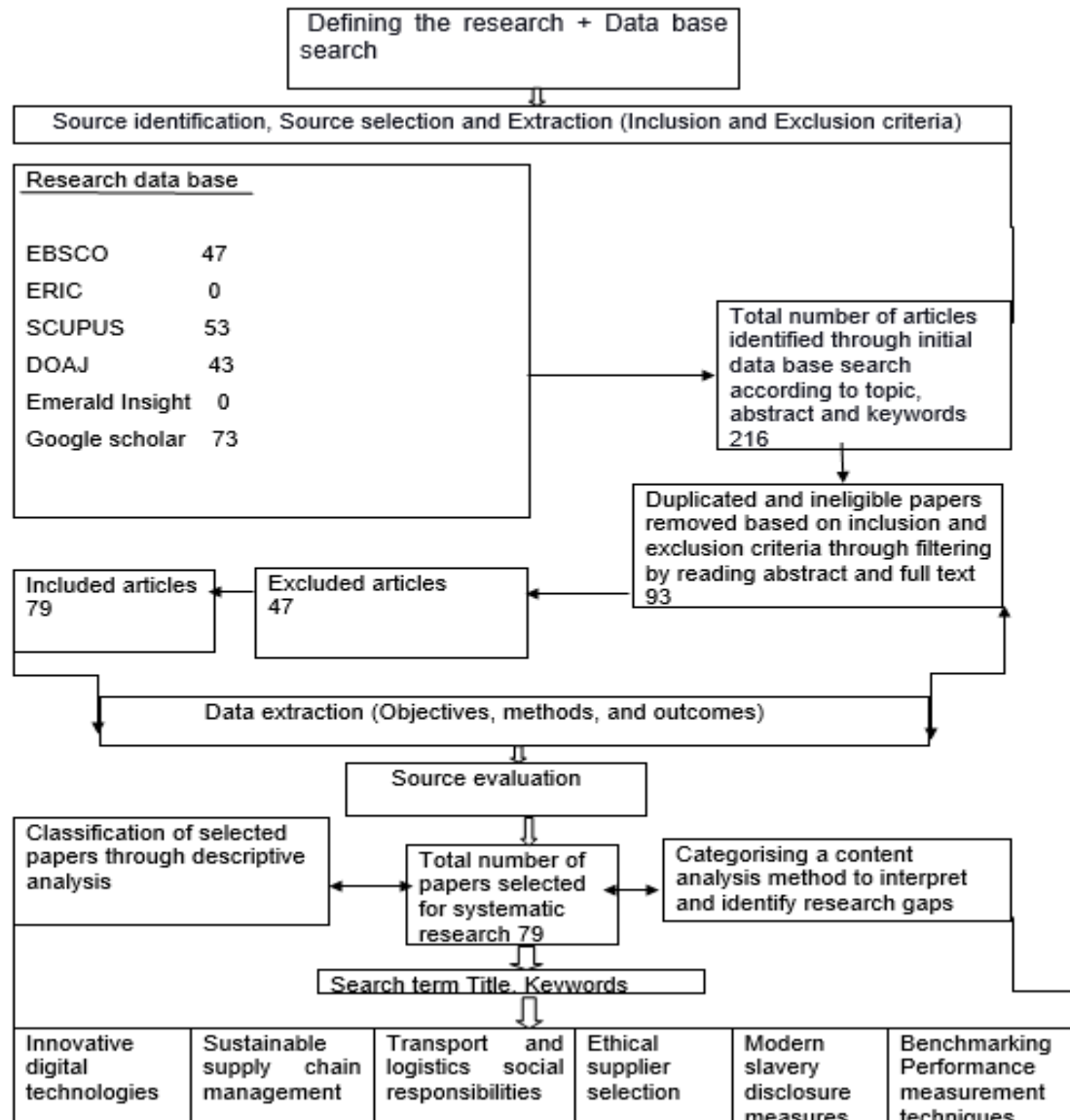


Fig 1. Methodology illustrating a systematic literature review.
Source: Authors work

Different parameters are considered before this review's commencement to ensure the correctness and suitable reaction of the research question (Mattick *et al*, 2018). As each study can influence and be a part of changing humanity's life, the author takes the same approach to the research field (Tikito *et al*, 2019). A robust research model for selecting and dismissing research papers is distinguished for the review. This study will cover a wide range of information related to the topic and ensure the objectivity and validity of the research (Denyer and Transfield, 2006). Subsequently, the author explains the approaches used to select the key steps to follow for selected articles. Essentially, high-quality, and valuable research is necessary if an explicit methodology is employed to avoid misunderstanding points.

Nevertheless, an attempt has been made to map relevant intellectual databases to specify the research question, which will further develop the knowledge phase (Transfield *et al.*, 2003). The initial search strings included the following key terms: "Social sustainability", "Socially sustainable supply chains", "Labour exploitation", "Modern slavery", "Human Trafficking", "Mapping, traceability, and supplier selection", "Supply chain", "UN Sustainable Development Goals", "technological developments and innovation", "Digital technology", "Forced labour", "Corporate Social Responsibility", "Benchmarking", "Performance measurement". According to Siksnyte-Butkiene *et al.* (2021), various keywords used for choosing papers and other logical operators like AND OR make the inquiry in a systematic review more precise.

2.2. Searching

A systematic literature review requires adequate evaluation when sourcing relevant literature to identify, appraise, and synthesise all the empirical evidence that meets pre-specified eligibility criteria to answer a given research question (Cruz-Benito, 2016; Kruse, 2019). Although, locating and retrieving quality and relevant literature can be very challenging yet crucial to the successful outcome of the review. In his study, Piper (2013) argued that poorly conducted systematic reviews could mislead just like any other exploratory study, yet careful planning and execution of the study design can lessen the compromising factors. Essentially, the relevant material sourced to conduct the review provides the information from which evidence, conclusions and recommendations are drawn (Marx *et al.*, 2018). Although, the process of sourcing the material might involve a thorough and comprehensive search to find all suitable published and unpublished work that addresses one or more research questions and a systematic presentation and integration of the characteristics and findings of the result of that search (Siddaway *et al.*, 2019). However, this review synthesises studies to draw a broad theoretical conclusion about linking theory and evidence to theory. Denyer and Transfield (2006) found that the validity of a review's findings depends on the comprehensiveness of the search and the comparability of the studies located.

The author comprehensively searches peer-reviewed papers between March and August 2022. However, the search was limited to papers published between 2011 and 2022. Therefore, the most used academic database reviews the past and present articles and peer-review scholarly journals with "keywords search" through different research databases as demonstrated in Table 1. e.g., SCOPUS, Core, Web of Science, Science Open, Directory for Open Access Journal papers (DOAJ), Education Resource Information Centre (ERIC), Social Science Research Network (SSRN), Science Direct, Public Library of Science (PLOS) Emerald Insight, EBSCO, Google Scholar, E-Resource, E-Journal, E-Books, and Liverpool

John Moores University Library Hub discover. However, recognising existing literature relevant to the topic cleared the way for the research design process by initiating critical approaches for analysis.

The Scopus database has been instrumental in sourcing relevant material for this review. Thelwall and Sud (2022) described Scopus as an abstract and indexing database with full-text links produced by Elsevier Co. Accordingly, Scopus is considered one of the most suitable databases for literature searches for global research. Furthermore, academic researchers have extensively used it in conducting systematic reviews in various disciplines. According to Iqbal (2018), Scopus serves researchers' information needs across the entire academic community. Scopus has one of the largest abstract and citation databases of peer-reviewed literature, scientific journals, books, and conference proceedings. Invariably, delivering a comprehensive overview of the world's research output in supply chain management, science, technology, social science, and humanities.

The Scopus database collects the relevant articles with the following phrases in the article's title, abstract, and keywords: "Socially sustainable supply chain management" and "modern slavery" or "Forced labour" or labour exploitation". From the initial literature search, most studies on Anti-slavery initiatives and frameworks in global supply chains were published before 2011, as shown below in Table 2. Based on this observation, in this review, the literature on modern slavery in the global supply chain is systematically reviewed from 2011 to 2022.

After the preliminary search in Scopus, the search database uses the following criteria:

- Document type: Article
- Source type: Journals and Articles
- Year: 2011–2022
- Language: English

Other databases, such as the Social Science Research Network (SSRN), Education Information Resource Centre (ERIC), Web of Science and Google Scholar, were used to enhance the search.

Table 1. The application of Abstract, title and keywords when searching for relevant papers

Search Database	Searched Metadata	Search Strings
Scopus	Title, Abstract, Keywords	TITLE-ABS-KEY (MS, HT OR FL) OR (modern slavery in supply chains OR forced labour in global supply chain) OR (Digital technology OR technological advancement for supply chain verification) OR (Supply chain OR Logistic social responsibility) OR (Contemporary initiative OR state-of-the-art to combat modern slavery in SC) OR (Socially sustainable supply chain OR Ethical supply chain) AND (Mapping, Verification, monitoring and risk assessment of supply chain) AND (barriers OR drivers) AND (NGOs OR civil Society) AND (Civil society OR Non-Governmental Organisation) AND (technology OR technological)
Web of Science	Title, Abstract, Keywords	Search (AND was used to narrow the search and OR is applied to broaden the search). E.g., (Supply chain AND Modern slavery) AND Benchmarking AND Performance measurement OR (Force Labour OR Labour Exploitation) OR (Supply chain Mapping OR supply chain Verification OR Monitoring OR Traceability).
EBSCO	Title, Abstract, Keywords	("All metadata": SSCM OR SC OR ILO OR UNGP) AND (Supply chain OR Transportation) AND (digital technology OR technological advancement) AND (production and consumption) AND (manufacturer and consumer)
Google Scholar	Title, Keywords	(Intitle: SC OR keyword: GSC) OR (SSC OR keyword: ETI) OR (Intitle: technology or keyword: technology) OR (Intitle: innovation OR keyword: innovation) AND (Intitle: supply chain OR keyword: supply chain) OR (Intitle: distribution OR keyword: distribution) OR (Intitle: ethical OR keyword: ethical) AND (Intitle: digitalisation OR keyword: digitalisation) OR (Intitle: sustainability OR keyword: sustainability) OR (Intitle: drivers or keyword: drivers)
SSRN	Title, Abstract, Keywords	("All metadata": SSC OR GSC) AND (manufacturing OR distribution) AND (efficacy OR influence) AND (human rights OR civil rights) AND (factory OR production site) AND (supply chains OR planning OR organisation)
Emerald Insight	Title, Abstract	(Title: SSC OR title: GSC) OR ((abstract: SSC OR abstract: GSC)) AND ((title: modernisation OR title: state-of-the-art)) AND ((abstract: supplier OR abstract: producers) OR (title: procurement OR title: purchasing))
ERIC	Title, Abstract, Keywords	TITLE-ABS-KEY (MS OR FL OR HT) AND (procurement OR purchasing) AND (civil society OR non-governmental organisation) AND (drivers OR facilitators) AND (effect OR impact OR influence)

Source: Authors work

This review recommends various electronic database searches relevant to the topic of interest. The purpose was to cover an extensive range of information, reduce bias and ensure the objectivity and validity of the research systematically (Kruse, 2019).

2.2.1. Inclusion and exclusion criteria

Filtering the inclusion and exclusion criteria affected the review phase progress. Invariably, the refining techniques of review papers was a vital effort as it locates the actual topic of interest, which possesses potential significance to answer the specific research question. Journal papers for systematic review was sourced through various database, as demonstrated above in Table 1. Huls *et al.* (2018) discussed several challenges when determining their study's inclusion and exclusion criteria. Essentially, the discussion played a direct role in the viability of this systematic review. In the review paper, the inclusion criteria included in the study were papers published in high-quality scientific journals. However, this study included peer-reviewed papers published in academic journals, fully accessed text written in English, and research papers covering technological developments for modern slavery in global supply chains. Essentially, it is crucial to consider potential problems and the reality of how many peer-reviewed papers will be able to screen. Hornberger and Rangu (2020) argued that the inclusion and exclusion criteria set the stage for relevant material for a review. Therefore, any peer-review paper screened meets all the criteria of systematically inclusion. Figure 2. illustrates an overview of the study selection process.

The initial search uses the term 'modern slavery, ' resulting in 216 related papers. The inclusion criteria of the articles are as follows: keywords are in the title, the keywords section or the abstract of the paper, and the paper is in a scientific peer-reviewed journal. Accordingly, the items included are on publication in a peer-review journal, research published in an academic journal, all papers in the English language, access to full text, and papers that cover both drivers and barriers of socially sustainable supply chains. Essentially, the author includes studies published since 2011 till date. Articles in the content analysis are in social science and humanity (16), manufacturing and production (12), supply chain (23), and Engineering and Sustainability (18) (Siksnelyte-Butkiene *et al.*, 2021).

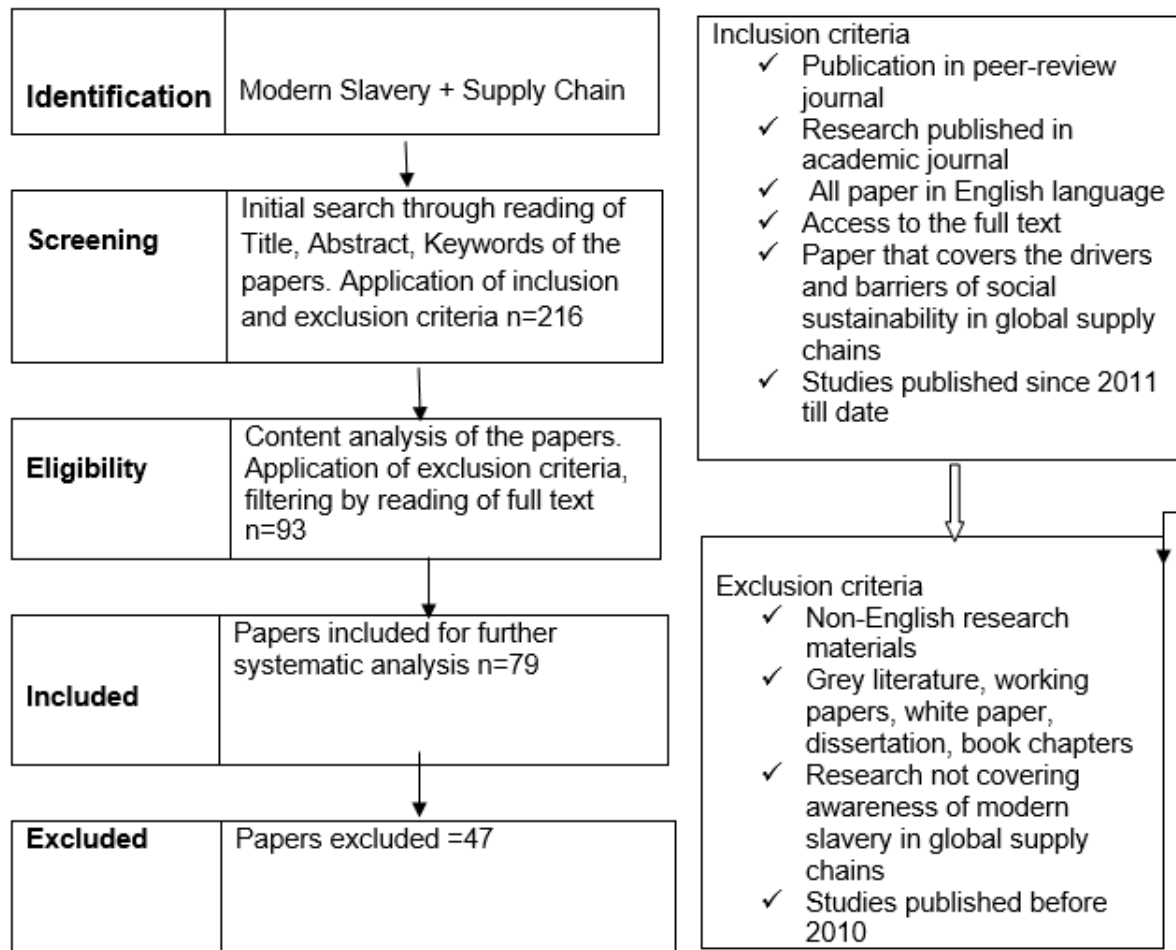


Fig. 2 Flow diagram of paper search and selection process through inclusion and exclusion criteria

Source: Authors work

The exclusion criterion encompassed grey literature, conference papers, working papers, commentaries, editorials, book review papers, dissertations, books, and studies published before 2010. In addition, papers published in other languages were excluded, which may impact the analysis results. Accordingly, exclusion criteria are as follows: review articles, conference proceedings; editorial letters; non-English papers, and papers which were not primary research (Marx *et al.*, 2018). These papers provide a basis for exclusion from further analysis. Thus, 42 conference proceedings papers and five non-English papers are among the exclusion from the content analysis. Two hundred and sixteen articles were found by the search combination “modern slavery” and “supply chain”, 93 of which met the inclusion criteria. This review discusses core ethical standards and principles that need to be adhered to and real-world problems that a prospective systematic reviewer is likely to encounter (Siddaway *et al.*, 2019). Therefore, conducting a full systematic review of the literature is an essential skill for any researcher to develop, allowing identification of the current literature,

its limitations, quality, and potential (Piper, 2013). In contrast, the sensitivity of modern slavery research requires explicit consideration when selecting materials for study.

3. Existing studies of modern slavery in global supply chains

Modern slavery is a complex crime that thrives in every society (Heerden, 2015). Crane (2013) found that modern slavery has received limited business and management literature attention. Therefore, a growing set of tools has emerged to assist companies by providing better visibility and transparency to assess risk, diagnose problems, act on issues, and monitor supply chains' labour practices and working conditions (Taylor and Latonero, 2018; Buck, 2019). For example, Allain et al. (2013) developed a business model to identify force labour indicators in supply chains. Magesh (2016) designed a modelling approach for a socially sustainable supply chain in a similar context. Gold et al. (2015) analysed the challenges of modern slavery in the supply chains. A few studies have reviewed the need to develop a standardised legal enforcement framework to prosecute those carrying out current slavery practices. Alternatively, policymakers could adopt effective benchmark methodologies to overcome barriers to these socially sustainable issues (Musto and Boyd 2014).

Studies by researchers from trade unions and Non-Governmental Organisations (NGOs), e.g., Verité', Amnesty International, Hope for Justice, and Know the Chain, have indicated labour abuses occurring under the guise of labour contractors within modern retail value chains (Ogunyemi *et al.*, 2016). According to Mani et al. (2014), developing countries are experiencing more social issues such as health, safety, child, force, and bondage labour in supply chains. The study by Gardner (2017) discussed the effectiveness of modern slavery collaboration and the various anti-slavery partnership in the UK. Collaborating with stakeholders such as private industry, government, and civil society organisations can further boost data availability and transparency and promote the conformation of statistical standards and suitable approaches (Idris, 2017).

The review of modern slavery literature on the global supply chain provides an inconclusive account of the organisational performance outcomes of corporate social responsibility, with results suggesting both positive and negative effects (Marx *et al.*, 2018). The study by Flynn (2019) identified the determinants of corporate compliance with modern slavery reporting in the global supply chain. Consequently, failures at all levels within global supply chains have contributed to decent work deficits and undermined labour rights (Vandergeest *et al.*, 2017). However, social activists have succeeded in raising awareness of the existence of slavery and in forcing governments and firms to tackle this problem (Smith and Johns, 2020).

Although, the inherent lack of transparency within globalised companies has created a gap in global supply chain management (Birnie and Rotchild, 2018).

Access to more formalised business sectors and practices reduces opportunities for labour exploitation. Accordingly, Brandenburg et al. (2019) developed a conceptual framework to examine the impact of socially sustainable supply chain management on mitigating modern slavery practices. Farsang et al. (2017) conducted a quick human rights compliance assessment to showcase a global value tool. However, Buck (2019) analysed published preventive statements and frameworks to protect businesses and individuals. Essentially, global supply chains have the potential to generate growth, employment, skill development and technological transfer (Judge, 2018). On the other hand, decent work deficits, including child labour, forced labour and human trafficking, have been linked to economic activity supported by global supply chains (Martinez, 2015; Green and Owen, 2019).

The global supply chain demand for cheap labour and products remains a significant systemic driver of modern slavery (McGrath, 2013). Therefore, recruitment abuses are the main entry points for forced labour and human trafficking in global supply chains. However, promoting fair recruitment is critical in tackling these violations and abuses (Vandergeest and Marschke, 2019). According to Jareb, Cvahte, and Rosi (2014), risk assessment helps understand where supply chains might be vulnerable to slavery and allocate resources to these areas to tackle the crime. Reports on labour exploitation and human trafficking show that child workers, undocumented migrants and some ethnic minorities are at risk of extreme labour exploitation (Zimmerman and Kiss, 2017; Emberson, 2019). Irvin (2016) remarked on how modern slavery regulations will impact supply chain stakeholders, especially consumer companies. Lambrechts (2020) observed that the awareness of social issues, including unethical recruitment and labour exploitation, is a recent phenomenon in global supply chains.

3.1. A Systematic review for current modern slavery research in global supply chains

Previous research has provided modern slavery description and practices as shown in (Appendix A.) that child and human trafficking for forced labour are mainly prevalent in the lower tier of the global supply chain and have not been systematically explored yet (Liu *et al.*, 2017; Benstead *et al.*, 2020; Islam and Van Staden, 2021). Further study indicates that countries progressing towards decent work and sustainable development have strengthened institutions that promote respect for fundamental principles and rights at work, eliminating workplace discrimination, freedom of association, and the right to collective bargaining (Sereni and Baker, 2018). However, the 2030 agenda for sustainable development,

universally adopted by all 193 UN Member States, calls for immediate and effective measures to eradicate child labour, forced labour, and human trafficking (Arowoshegbe *et al.*, 2017; Alsamawi *et al.*, 2019). In addition, other related issues, such as the environmental and social governance implications, have been researched (Baharuglo *et al.*, 2018; Duchon, 2019).

All form of labour exploitation represents a violation of fundamental human rights that undermine economic and social development (News, 2015). They contradict moral aspirations and play against governments, businesses, and societies (Huq *et al.*, 2014). Trautrim (2020) discovered many mixed methods approaches in detecting labour abuse in supply chains. Nishinaga and Natour (2019) explored using digitalisation to prevent modern slavery through its monitoring and mapping capabilities. Nevertheless, these efforts have mainly focused on identifying child labour, forced labour or human trafficking in producing and distributing goods and services for consumption (Martin-Ortega and Davies, 2016; Trautrim *et al.*, 2020).

Logistic social responsibility comprises the environment, ethics, diversity, labour rights, working conditions, and human rights (Carter and Jennings, 2002). The study by Szymonik (2012) Indicated that the international labour and logistics network seeks to identify and confront the complex challenges impacting workers in the global logistics industry to advance decent work. Consequently, workers in the sector face poor working conditions such as underpayment wages, a dangerous working environment, and long working hours (Sitran and Pastori, 2013). In addition, several jurisdictions have sought to compel businesses to undertake audits of their transport and logistic base to ensure that their suppliers' operations are free of 'modern slavery' (Allain *et al.*, 2013; Leon and Juan, 2014).

The global pandemic has significantly disrupted supply chains because many large brands cancelled orders and refused to pay for goods already produced (Sarkis, 2020; Dubey *et al.*, 2021). The covid 19 pandemic has impacted the global supply chain sustainability in the worst way and, at the same time, created an opportunity to explore new innovative ideas that can positively shape the global supply chain in the long run (Pinnington *et al.*, 2021). Sajjad (2021) provided a critical pathway to develop an initial understanding of how organisations can create more resilient and socially sustainable supply chains in a post- covid world. However, Dubey *et al.* (2021) suggested that lead companies build resilience in their supply chains by advancing technology innovations and adopting employee protection schemes through stakeholder collaboration.

Extensive research has been carried out on modern slavery in the global supply chain, as shown in Table 2. However, Yawar and Seuring (2017) found that the social dimension of sustainable development and its impact on the supply chain has received less attention than the environmental and economic dimensions. Although, contemporary studies on socially responsible issues, termed modern slavery, shift towards governance responses that underpin community resilience against labour exploitation (Sarkis, 2020; Dubey *et al.*, 2021). Therefore, the emergence of the UN sustainable development goals has created a road map for business organisations to incorporate Sustainable Supply Chain Management and social commitment in their practices to gain a competitive advantage (Allain *et al.*, 2013; Lake *et al.*, 2016). For example, Sustainable Supply Chain Management (SSCM) has been considered increasingly crucial by industry and academia, with today's ever more complex and fragmented supply chains due to global sourcing (Gong *et al.*, 2021).

The gap in policies prosecuting perpetrators of modern slavery activities in global supply chains has had little attention. Although, it is difficult to regulate the activities of multinational companies in such a way that they conform to international human, labour, and environmental rights standards (Rubio and Yiannibas, 2017). A more coherent legal and policy approach is required to mitigate labour abuse in the supply chain (Bernards, 2017). Bansal and Wyss (2013) assessed the human rights impact on business activities. For example, International human rights law can play an important role in private litigation for human rights abuses by multinational corporations (Crane *et al.*, 2019). The study by Irving (2016) detailed how new regulations will impact consumer companies.

3.1.2. Distribution of some key identified literatures.

This section analysed the related distributed literature papers for review. Although, the significance of this research is to extract ideas from academic experts from different regions, including Europe, America, Asia, and Africa. Only a few papers have addressed modern slavery challenges using a quantitative approach. However, the emerging interest by academic scholars is because of the continuous and strategic awareness designed by the developed regions of the global supply chains to foster sustainability through a sustainable supply chain management framework (Wu and Pagell, 2011). According to Paul *et al.* (2021), Sustainable supply chain management (SSCM) integrates the supply chain's economic, social, and environmental goals to improve long-term business performance and ensure better sustainability.

Table 2 Distribution of some key journals for the systematic review

Year	Title/ Article/ Journal	Author
2011	A Supplier Selection Model for Socially Responsible Supply Chain (<i>Journal of Optimization in Industrial Engineering</i>)	Aliakbaria, A., and Seifbarghy, M.
2012	Experiences of force labour in the UK food industry: Inspiring social change (<i>Joseph Rowntree Foundation report</i>)	Scott, S., Craig, C, and Geddes, A.
2013	Addressing contemporary forms of slavery in EU external policy (<i>Briefing Paper</i>)	Bales, K. and Trodd, Z.
2013	An integrated management systems approach to corporate social responsibility (<i>Journal of Cleaner Production</i>)	Asif, M., Searcy, C., Zutshi, A., & Fisscher, O. A. M.
2014	Using Big Data and Quantitative Methods to Estimate and Fight Modern Day Slavery, (Review of <i>International Affairs</i>)	Datta, M, N.
2014	The effects of Agency Workers Regulations on agency and employer practice (<i>Research Paper</i>)	Forde, C. and Slater, G.
2015	Modern Slavery and the Supply Chain: The Limits of Corporate Social Responsibility (<i>Supply Chain Management an International Journal</i>)	New, S.
2015	Benchmarking global supply chains (<i>Review of International Studies</i>)	LeBaron, G., and Lister, J.
2016	Transparency in Supply Chains – the UK Modern Slavery Act (<i>The Business and Human Rights Review</i>)	Townsend, M., Watkins, C, and Hughes, H.
2016	The Ethical Trading Initiative: Negotiated solutions to human rights violations in global supply chains (<i>Corporate Accountability Research</i>)	Connor, T., Delaney, A. and Rennie, S.
2017	A Framework of Sustainable Service Supply Chain Management (<i>Journal of Sustainability</i>)	Liu, W., Bai, E., Liu, L, and Wei, W.
2017	Human rights in business: Removal of barriers to access to justice in the European Union	Rubio, J.J.A and Yiannibas, K.
2018	Modern slavery in the global supply chain: The challenges of legislation and mandatory disclosure,	Odia, J, O.
2018	Conflict minerals and supply chain due diligence: an exploratory study of multi-tier supply chains (<i>Journal of Business Ethics</i>)	Hofmann, H., Schleper, M, C and Blome, C.
2019	Measuring child labour, forced labour and human trafficking in global supply chains: A global Input-Output approach	Alsamawi, A., Bule T., Cappa C., Cook, H., Galez-Davies, C, and Saiovici, C.
2019	Digitalization” Technology Solutions for Advancing Human Rights in Global Supply Chains (<i>Article by Human Rights Centre</i>)	Nishinaga, J. and Natour, F
2020	Ethical and Sustainable Sourcing: Towards Strategic and Holistic Sustainable Supply Chain Management (<i>Encyclopaedia of the UN Sustainable Development Goals</i>)	Lambrechts, W,
2020	Key Drivers of Modern Slavery	Avis, W.
2021	Supplier Selection in Sustainable Supply Chains: A Risk-Based Integrated Group Decision-Making Model, (<i>Article in Research Square</i>)	Wu. C., Zou, H., and Barnes, D.,
2021	How frugal innovation shape global sustainable supply chains during the pandemic crises: Lessons from the Covid 19 (<i>Supply Chain Management an International Journal</i>)	Dubey, R. Bryde, D. Foroapon, C. Tiwari, M. Gunasekaran, A.

Source: Authors work

4 Theoretical analyses of modern slavery initiatives through benchmarking

Modern slavery is an urgent societal problem that has increasingly grabbed the attention of policymakers, civil society, the public, and even business leaders. Although, Stevenson and Cole (2018) argued that modern slavery is highly under-studied by supply chain management scholars. This study has addressed the situation and challenges faced in the global supply chains concerning labour exploitation using a systematic literature review method. In doing so, findings from relevant papers summarise two research questions in this section. However, this systematic review aims to enhance understanding in the literature concerning how organisations can detect, remediate, and prevent modern slavery in their operations and supply chains, including at the sub-supplier level, with the adoption of benchmark methodologies of the existing initiatives to promote best practices. This review analyses the benchmark methodology of initiatives to tackle modern slavery; the focus is on whether diverse current slavery interventions have been effective and, crucially, what lessons or recommendations emerge from them that can be applied elsewhere.

An initiative on Information campaigns that target specific groups to advocate action rather than simply highlighting problems and risks. Although, a baseline assessment can ensure that an awareness programme is appropriate and effective (Benstead *et al.*, 2021). Campaigns should prioritise engagement with communities to understand the driving factors behind modern slavery and identify suitable interventions through benchmarks and performance measurement (Dragolea and Cotîrlea, 2009). In addition, information campaigns should raise awareness of alternative options that may make people not fall victim to any form of modern slavery. Essentially, this measure will inform communities about the risks of modern slavery and human trafficking.

A worker-driven social responsibility initiative that concentrates on protecting and improving factory workers. Alternatively, the protection initiative provides education and capacity building to workers (Hicks, 2021). However, the initiative targets specific groups, such as men and women. Accordingly, projects to tackle modern slavery should be associated with interventions in compliance, health, social protection, and livelihoods to foster sustainable development that could aid vulnerable groups at risk of labour exploitation (Alamgir and Banerjee, 2019). Invariably, benchmarking provides a good view of a company supply chain performance compared with similar operations. Cousins *et al.* (2020) remarked on the shareholder wealth effects of modern slavery regulation. Alternatively, companies are responding, as many global brands take steps to tackle the issue of modern slavery in supply chains. Although, it is becoming evident that the tide of opinion is also placing greater responsibility on public purchasers to address the issue of labour exploitation, emphasising

an increasing need to understand the potential human impacts of forced labour. Martin-Ortega and O'Brien (2017) emphasised the global benefit of advancing respect for labour rights through public procurement.

A strategic cross-border prevention initiative on preventing modern slavery by simply imposing bans on human trafficking, child labour and forced labour will not be effective. It could even be counterproductive, leading to increased trafficking and a rise in child labour. According to Antonini et al. (2020), the government must restrict any item manufactured through forced labour. Benchmarking formulates a tangible measure of the efficiency of main processes in the supply chain and creates a solid foundation for border performance (Alosani *et al.*, 2016). In addition, benchmarking will enable decision-makers to understand the required improvement to achieve superior performance in tackling modern slavery through ethical auditing of the supply chains (LeBaron and Lister, 2015). However, the authorities must start putting the necessary measures in place to identify, prevent and mitigate the risk of human rights violations in our supply chains.

4.1 The main situations and challenges highlighted by researchers in the field of study.

The benchmarking of the global supply chain is a critical area for urgent attention in modern slavery research (Martin-Ortega and O'Brien, 2017). However, the lack of research attention on the ambiguity of what firms are reporting is significant for the global supply chains, as perhaps surprisingly, the focus for legal compliance is the transparency in the supply chains statement's publication, not the changes adopted or commitments to act (Meehan and Pinnington, 2021). Although, several countries worldwide have introduced new legislation that pressurises organisations to increase the transparency of their supply chains, which should encourage the dissemination of sustainable practices up the chain (Stevenson and Cole, 2018). For example, the Rana Plaza case action by the international community led to an enforceable contract between downstream buyers and Bangladeshi labour representatives, pressuring Nike to tighten its recruitment procedures (Trautrimis *et al.*, 2020). Nevertheless, current research studies on modern slavery in global supply chains have highlighted challenges and issues related to several areas (Ruggie, 2014).

4.1.1 Modern slavery in global supply chains

Global supply chains refer to goods and services that cross international borders for consumption (Rubio and Yiannibas, 2017). The goods and services consumers purchase comprise inputs from many countries worldwide and are processed, assembled, packaged, transported, and consumed across borders and markets (Gold *et al.*, 2015). Mapping these

complex supply chains is demanding. Moreover, identifying where and to what extent child labour, forced labour, and human trafficking occur along these supply chains is even more complicated (Michailova and Stringer, 2018). However, Buck (2019) addresses the need for a standard tool and criteria governing organisations' actions. Hence, the global multi-regional input and output database is needed to trace the supply chain and understand regional loopholes (Hertwich and Peters, 2010; Zhang *et al.*, 2021). Such a tool and criteria are reliable in combating modern slavery within corporations and throughout global supply chain tiers (Felice, 2015). Organisations operating in global supply chains present various opportunities for growth through capacity building, employment, and local economic development. However, organisations that fail to conduct business responsibly contribute to social and environmental impacts such as forced labour and human trafficking (Martinez, 2015; Birnie and Rotchild, 2018). Therefore, the complexity and interconnectedness in the global markets present a challenge for traditional statistics and accounting methods. Hence, risk assessment along every supply chain tier will improve traceability (Tran and Kummer, 2018).

The social and environmental impact of firm participation in global supply chains increases policy interest regarding socially responsible sourcing and procurement activities (Santos *et al.*, 2012; Zorzini *et al.*, 2015). However, according to Buck (2019), supply chain managers need more resources to investigate lower-tier suppliers in general geographic operations. According to Monaghan *et al.* (2018), companies overwhelmingly focus their efforts on the first tiers of their supply chains, with few working to understand the same risks associated with more profound levels. Similarly, Sánchez-Flores *et al.* (2020) examined the extent of socially sustainable supply chain management, especially in the supply chains in emerging economies. On the other hand, McGough (2013) demonstrated the existing anti-human trafficking effort established to end modern-day slavery activities in lengthy and complex supply chains. The power asymmetry between big multinationals at the top of the supply chain and the lower-tier suppliers could create the condition that leads to modern slavery (New, 2015). For example, Figure 3 demonstrates the behaviour adaptation of a multi-agent supply chain and its functionality scope (Brintrup, 2010). Although, company due diligence beyond immediate suppliers could present one of the most significant opportunities to suppress human rights abuse.

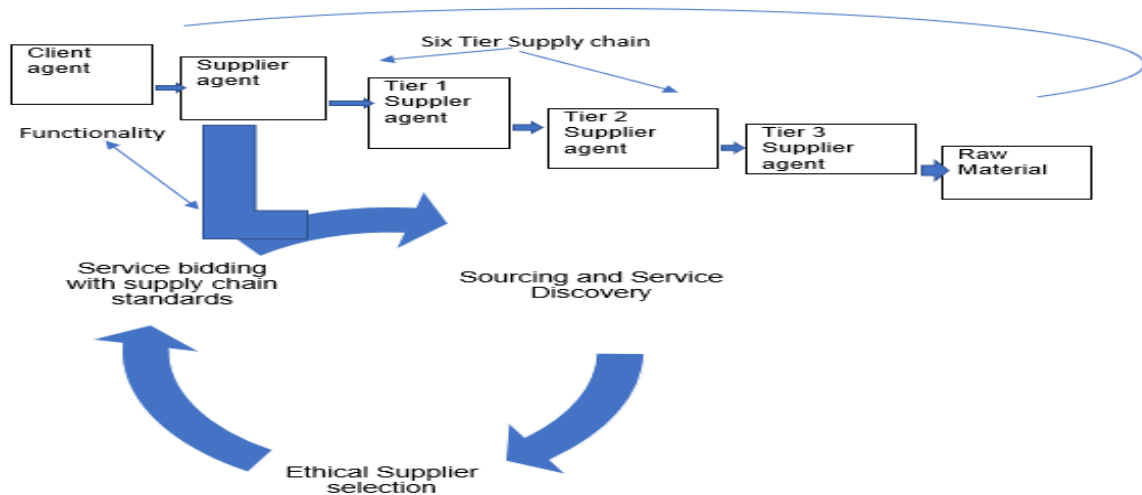


Fig 3 Multi-agent supply chain functionality scope
Source: Authors work based on Brintrup (2010)

4.1.2 Supply chain mapping

Supply chains extend from direct suppliers and responsible businesses with better visibility of their supply chains. Accordingly, through information technology, supply chain visibility is a supported visualisation and monitoring of all supply chain processes, from the supplier to the end customer (Martinez, 2015). However, it is expected for business organisations to ensure progress toward respect for those standards within their own and their supplier's operations (Marmo and Bandiera, 2021). Today, all major global brands have labour codes of conduct or are part of multi-stakeholder ethical alliances. Although, buying companies may not know where human rights abuse occurs along the supply chains (Huq, Chowdhury, and Klassen, 2016). According to recent studies, abusive employment conditions like modern slavery continue to thrive in the upstream operations of global commodity supply chains as diverse as conflict mineral mining in the Democratic Republic of Congo, plantation farming and shrimp fishing in Thailand, cotton harvesting in Uzbekistan, Assam tea plantations in India and coffee growing in Ghana (Trautrimis *et al.*, 2020). Although, it is evident within informal work environments where indirect suppliers along the supply chains do not get routine labour and safety inspections (Parrella, 2019).

Modern supply chain mapping is the verification process across companies and suppliers to document the exact source of every material, every process and every shipment involved in bringing goods to market (Green and Owen, 2019). Although, long and complex global supply chains make it harder for businesses to have visibility of the people, places and operations that make up their supply networks. According to Judge and Tomlinson (2016), businesses and NGOs have an essential role in their supply chain visibility, such as

promoting decent work to tackle varying poor and unlawful working practices. For example, Hope for Justice, a global NGO, has raised awareness by mapping the risk of using slave labour in the transport logistics and warehouse sector to end modern slavery practices in the supply chains (Walk free foundation, 2014). Figure 4. demonstrates a representation of the supply chain mapping network. Accordingly, knowing the steps concerning the supply base will help understand each supplier's services and where each supplier is (Pinnington *et al.*, 2021). However, organisations should establish and increase their visibility and influence over the lower tiers of long and complex supply chains to prevent or mitigate the risk of modern slavery.

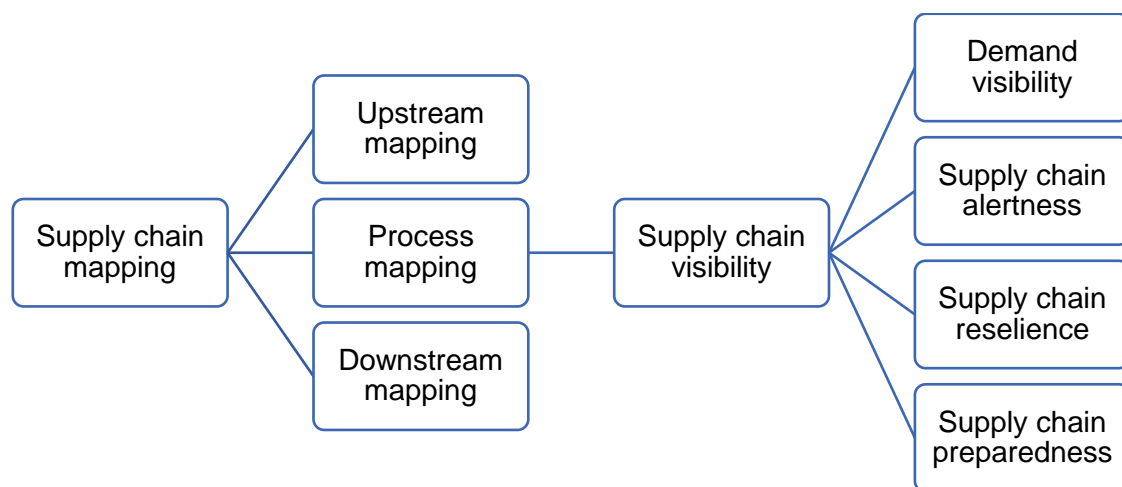


Fig 4. Supply chain mapping network
Source: Author work based on Vakil (2021)

Some multinational enterprises believe that outsourcing production does not give them the moral right to assume responsibility for the conditions of their suppliers' workers (Martin-Ortega, 2014). That is why lower-tier suppliers and intermediaries' lack of visibility has made the over-sight of employee conditions more difficult. McGrath and Mieres (2017) addressed the demand side in and through the supply chain, especially in supply chain mapping. Similarly, Beadle and Davison (2019) remarked on the issue of mapping the vulnerabilities of victims of trafficking, especially from Vietnam to Europe. Brandenburg *et al.* (2014) developed a theory for increasing downstream awareness of vulnerabilities to encourage action and decrease parent company liability for such crimes using quantitative models for sustainable supply chain management. Essentially, a lack of supply chain mapping and meaningful due diligence can hinder the identification of critical actors in a business supply chain (Allain *et al.*, 2013). According to Mani *et al.* (2014), effective mapping and verification of the supply chains will assist the business organisation in:

- Ethical supply selection
- Ethical sourcing

- Ethical procurement

4.1.2.1. Ethical supplier selection

Business organisations should be aware of products or services from suppliers whose production delivery is associated with forced labour or human trafficking (Huq *et al.*, 2016). Martin-Ortega and Davies (2016) found that business organisations are beginning to incorporate social aspects during supplier selection, slightly different from the usual economic consideration when procuring products and services from suppliers. According to the study by Winter and Lasch (2016), sustainability criteria are crucial for supplier evaluation. Trautrim *et al.* (2020) suggested that training procurement professionals will identify modern slavery risks during supplier selection. In so doing, companies can improve the working condition of those employed by exploitative suppliers whilst rewarding those who treat workers with dignity and respect. Similarly, Carter *et al.* (2010) examined the influence of culture on supplier selection decision-making by industrial procurement managers during sourcing. However, achieving supply transparency is challenging as firms outsource or subcontract low-value or high-risk activities (Crane, 2013).

Ethical supply selection in emerging economies is essential for corporations to consider strategic advantage (Zhou and Xu, 2018). Figure 5. demonstrates ethical supplier selection guidance for preventing modern slavery in the global supply chain. Davies and Crane (2003) remarked on ethical decision-making in fair trade companies and its influence on protecting human rights in the global economy. However, Lead companies are encouraged to demonstrate continuous functions that systematically collect data on specific indicators to assess and document action, performance, and compliance during supplier selection (Taherdoost and Brard, 2019; Gold *et al.*, 2020). Aliakbaria and Seifbarghy (2011) designed a supplier selection model for a socially sustainable supply chain while considering corporate social responsibility factors. Alternatively, Bai and Sarkis (2014) emphasised adopting and applying sustainable key performance indicators when selecting product suppliers. According to Martin-Ortega *et al.* (2015), working with a smaller number of credible suppliers with proactive management practices is one way to increase confidence in the integrity of supply chains.

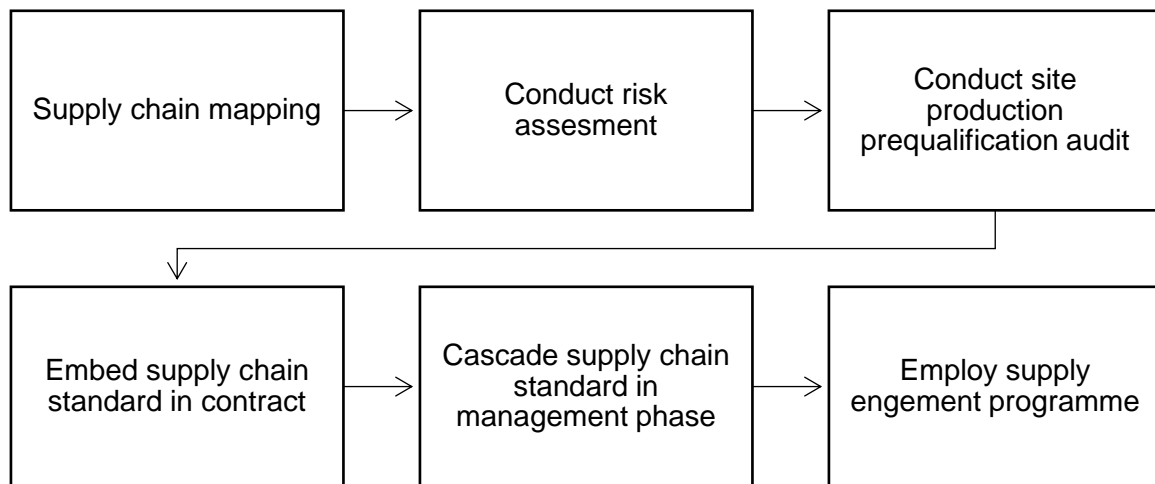


Fig 5. Supplier selection guidance for preventing modern slavery in supply chains.
Source: Trautrim et al. (2020)

4.1.2.2. Ethical Sourcing

Buyers are expected to collect, monitor, and verify data from their sourcing portfolio to inform decision-making towards full compliance and provide composite information about the fulfilment of commitments (Hoang, 2019). The buying power of member states and the European Union gives them substantial power over companies and the ability to influence business commitment to human rights by cascading labour standards throughout their supply chains (Gabrielle *et al.*, 2018). Researchers from trade unions and Non-Governmental Organisations (NGOs) have highlighted labour abuses in multi-tier supply chains and amongst labour contractors within modern retail value chains (Barrientos, 2013; Mani *et al.*, 2014). However, it is essential to initiate sustainability in various multi-tier supply chains. However, Gong *et al.* (2021) argued that initiating sustainability in multi-tier supply chains further 'adds complexity to an already complex problem.

Global production is expanding through outsourcing to developing countries through networks of producers and agents coordinated by large global and regional buyers (Barrientos, 2013). However, offshoring, outsourcing, and subcontracting can cloud the distribution of responsibility along the value chain, particularly regarding social and environmental standards (Brintrup, 2010; Heerden, 2015). Working with a smaller number of credible suppliers with proactive management practices is one way to increase confidence in the integrity of supply chains (Mani *et al.*, 2014). However, Gold *et al.* (2015) suggested that a multi-stakeholder initiative, community-centred engagement, supplier development, and capacity building are necessary for addressing the root course of slave labour upstream and downstream supply chains.

4.1.2.3. Ethical procurement

Ethical procurement refers to how organisations meet their needs by considering their value chain's environmental, social, and economic impacts (Birnie and Rotchild, 2018). Multinational enterprises aim to buy and supply products in a more sustainable way, known as ethical procurement (Martin-Ortega *et al*, 2015), which aims to use procurement and supply to reduce the negative impact on the environment, economy, and society (Walker and Jones, 2012). Consequently, sustainable supply chain management (SSCM) is a new standard by focal companies to ensure that their suppliers act socially responsibly (Wu *et al*, 2021). In addition, Companies are held accountable for their internal practices and supplier behaviour during procurement (Winter and Lasch, 2016). Benton (2018) detailed the critical role SAP Ariba plays in defining the future of procurement as the supply chain industry evolves.

Some countries have succeeded in integrating modern slavery standard and commitment to public procurement practices, such as the US federal acquisition regulations and the UK public contract regulations, which prohibits the government from awarding a contract unless the company certifies that it will not sell a product suspected of being produced with forced labour or child labour (Yusuf *et al.*, 2014). In their research, Kim *et al.* (2016) analysed that it is imperative to ensure goods are sourced ethically and somewhat along the supply chains. Zorzini *et al.* (2015) found that multinational corporations now use their buying power to enforce social standards and organisational commitment to their suppliers to ensure human rights across the supply chains. Although, policymakers and NGOs' have advised procurement professionals to address any exploitative situation by the suppliers instead of completely cutting ties with the suppliers (Lambrechts, 2020).

4.1.2. 4. Ethical Trading Initiative

A recent survey shows that global brand participants have labour supply standards or are part of multi-stakeholder ethical coalitions such as the Ethical Trading Initiative (Mezzadri, 2014). Ethical Trading Initiative is a multi-stakeholder organisation that promotes respect for human rights and provides insights about promising practices to mitigate forced labour within the supply chains (Heerden, 2015; Lake *et al.*, 2016). Yusuf *et al.* (2014) described ethical trade as providing goods and services to customers while subscribing to a moral code of conduct. The study by Lambrechts (2020) elaborated that the ethical trading initiative expects companies to ensure that their first-tier suppliers become involved with their suppliers to abide by the ethical trading initiative base code throughout the supply chain. Quarshie and Salmi (2014) examined the supply network's ethical and corporate social

responsibility issues. However, the goal is to promote respect for workers' rights within the supply chains. In their study, Connor et al. (2016) argued that reducing product demand is one of the most effective ways of preventing labour exploitation.

Forced labour is prevalent in global supply chains. However, companies endeavour to progress toward respect for those standards and their suppliers' operations (Bansal and Wyss, 2013; Marmo and Bandiera, 2021). Companies are encouraged to ethically verify their entire production process before sourcing any product (Yusuf *et al.*, 2014; Bodenheimer, 2018). Lambrechts (2020) defined *Ethical sourcing* as a "process of sourcing a material, product, and service an organisation needs from its supplier in an ethical and socially responsible way". According to Mezzadri (2014), companies usually contract out the production process to first-category suppliers, and those foremost category suppliers have contracts with other suppliers. For example, the relevant production processes occur in factories and farms beyond the first tier of the supply chains (Baur and Palazzo, 2011; Annamma *et al.*, 2012; Tatzenko *et al.*, 2019).

4.1.3 Performance Measurement and Benchmarking for supplier

Over the past decade, most developed countries, e.g., the UK and the US, have developed a series of measurement frameworks that enables robust monitoring and evaluation of the progress towards protecting and promoting equality and human right in a systemic way (Sherman, 2021). The UK government have a statutory duty under section 12 of the equality Act 2006 to monitor social outcomes from an equality and human right perspective by developing indicators and reporting progress (Brahler *et al.*, 2017). Supply Chain Management (SCM) program evaluation and monitoring depend on developing and applying performance indicators (Felice, 2015). The benchmark methodology can help create a broader consensus on social priorities and provide concrete, practical tools for enforcing human rights and measuring their implementation (Felice, 2015). To understand social phenomena, some organisations and private businesses rely on metrics or indicators to monitor their performance over time. Bai and Sarkis (2014) identified a sustainable supply chain Key Performance Indicator (KPI) used for suppliers' sustainability performance evaluation.

Performance measurement is necessary to review social standards' effectiveness and policy implementation (Monaghan *et al.*, 2018). Table 4. outlines a benchmark methodology designed by Know the Chain. Measuring the sustainable social performance of an organisation's supply chain will demonstrate how well it is operating in meeting the target of the UN SDGs (Morais and Barbieri, 2016). Accordingly, business organisations should

employ KPIs to monitor the effectiveness of the steps taken to ensure that modern slavery does not occur in business supply chains. Although Taghavi et al. (2014) argued that currently established KPIs do not give the necessary decision support to address future challenges proactively. Alternatively, Giannakis et al. (2020) evaluated supplier sustainability performance using the analytic network process.

Table 4. Know the Chain Benchmark Methodology

Indicator name	Indicator description and indicator element
1.Commitment	The company publicly demonstrate its commitment to addressing human trafficking and force labour.
Supply chain standards	The company has a supply chain standard that requires suppliers throughout it supply chain to uphold workers fundamental right and freedom.
Management and accountability	The company has established clear responsibility and accountability for the implementation of it supply chain policies and standards relevant to human trafficking and force labour
Stakeholder engagement	The company engages with relevant stakeholder on human trafficking and force labour
2.Traceability and risk assessment	The company has a process to trace and assess force labour identified in its different tiers of supply chain.
3.Purchasing practice Supplier selection	The company is taking steps towards responsible raw material sourcing and purchasing. The company assesses the risk of force labour at potential supplier prior to entering any contract with them.
4.Recruitment practices	Ensuring recruitment agencies uphold the fundamental human rights of the employees by preventing workers paid recruitment fees.
5.Worker's voice	Ensuring the workers can understand and express their labour rights
Grievance mechanism	The company makes available to supplier workers a formal and effective mechanism to report grievances to an impartial entity regarding labour condition in its supply chain. e.g., UK National referral Mechanism
6.Monitoring and Auditing	The company audits its suppliers to measure compliance with applicable regulations and with its supply chain standards. e.g., non-schedule visits, interviews with workers, review relevant documents, visit production sites.
7.Remedy and corrective action plan	The company has a process to provide remedy to workers in its supply chain with respect to human trafficking and force labour.

Source: Irving (2016)

The standard variable measuring social performance is an equal opportunity, human rights, and business ethics (Azfar *et al*, 2014; Yun *et al.*, 2018). Organisations that employ an effective supplier performance measurement system can engage with the business society to deliver reasonable customer satisfaction (Saeed and Kersten, 2017; Mani *et al*, 2018). The study by Brahler et al. (2017) demonstrated a measurement framework that enables the monitoring and evaluation of the progress towards equality and promotion of human rights in a systemic way. In their report, LeBaron and Lister (2015) investigated the growing power of a practical ethical compliance audit regime through benchmarking global supply chains.

4.1.4 Benchmarking the effectiveness of existing initiatives.

One of the objectives of this review is to benchmark the effectiveness of the existing initiatives to combat modern slavery in supply chains and provide guidance on the decision-making process across businesses to help guide its employees to do business in a compliant way, with integrity, and to make ethical, responsible decisions. The benchmark model requires governments to lead in preventing modern slavery by designing and implementing feasible and effective policies such as awareness campaigns and strategic cross-border preventive initiatives in supply chains (Simatupang and Sridharan, 2003). So doing it will create a level playing field for firms attempting to do the right thing. For example, setting clear standards for businesses, workers and investors that seek to address the causes of labour exploitation; and enforcing those standards (New, 2015). In addition, the benchmark model includes examining the governance framework such that action on modern slavery will be seen as an essential corporate value and a potential source of competitive advantage. More so, ensuring public commitment with clear policy statements and codes of conduct available to stakeholders in relevant languages and consistent with legislation and global frameworks, for example, the UN guiding principle on business and human rights.

Benchmarking the performance of a company's products, services, or processes against those of another business considered the best in the industry (Bhattacharya and David, 2018). Invariably, the point of benchmarking is to identify internal opportunities for improvement. The review proposes to benchmark the initiative on modern slavery risk identification such that a robust process to identify risks across high-risk populations, geographies, products, and services will be effective. Furthermore, the review analyses the effect of the worker-driven social responsibility initiative on the premise of its action plan to mitigate risk such that trained employees and suppliers are provided with a Code of Conduct to assist in monitoring and managing modern slavery risks. Although, the effectiveness will be measured using key performance indicators and relevant metrics to evaluate progress and shortfalls against current slavery operations of key service providers such as recruiters. However, firms can set baselines for continuous improvement by analysing the company's approach to modern slavery versus best practices (Dragolea and Cotirlea, 2009).

5 Research Gap

The supply chain is critical for urgent attention in modern slavery research (Martin-Ortega and O'Brien, 2017). Benchmarking the initiatives remains an essential part of adopting best practices. Irving (2016) remarked that many companies still lag in employing best practices. Global companies with long international supply chains should have internal mechanisms to

manage modern slavery risk. Hicks (2021) highlights best practices in some company audits as publishing metrics against which progress can be measured, especially in mitigating labour exploitation in lengthy and complex supply chains to ensure human rights due diligence for the corporation (Martin-Ortega, 2014). Based on the analysis of this systematic review survey, studies show that practical actions such as benchmarking supply chain performance ensure sustainability.

Furthermore, action research shows an understanding of the gap in benchmarking the social sustainability performance in the global supply chain (LeBaron and Lister, 2015). Invariably, research on facilitating the integration of supply chain networks in social sustainability needs inclusion in the literature review. However, there is still a significant distinction in firms' efforts to address modern slavery issues in supply chains. In future, we expect to see more academic research on benchmarking to prevent modern slavery.

5.1 Theoretical implications

This research reflects on the theoretical implications of examining the status of supply chain interventions in identifying performance gaps and facilitating improvement initiatives that will mitigate labour exploitations in supply chains. Essentially, theoretical implications are derived to improve the operational performance of the firm's supply chain (Bhattacharya and David, 2018). The benchmark methodology addresses modern slavery issues and allows us to provide a more comprehensive explanation of the determinants of the business efforts (Simatupang and Sridharan, 2003). Our research demonstrates the applicability of the benchmark model in the modern slavery context, laying a necessary theoretical foundation for future research. Accordingly, future research can adopt the benchmark framework to investigate current slavery factors at different levels (e.g., firm, supply chain, industry, and country), advancing our understanding of how business supply chains operate in modern slavery. Our research, by contrast, relies on formal theorization, providing a clear link between theoretical and practical concepts. For instance, we explain why firms are more aware of addressing supply chain slavery issues. Furthermore, the benchmark methodology aims to achieve decent working conditions in emerging-country suppliers (Chazal and Raby, 2021). Therefore, designing an initiative to promote proper working conditions among suppliers is relevant for supply chain research.

Poverty and social exclusion are some of the circumstances that can increase vulnerability to modern slavery (News, 2015). However, education and awareness-raising address the vulnerability of those at risk of labour exploitation. Educating those at risk of labour exploitation through programmes that equip individuals with the skills necessary for employment opportunities can reduce the job-seeking rate in an informal exploitative

economy (Ardiana *et al.*, 2021). The research has highlighted potential intervention points for mitigating labour exploitation in production sites, significantly improving upstream and downstream working conditions. Research has identified poor sourcing and purchasing practices which put financial pressure on suppliers and create incentives to cut costs in ways that exacerbate workplace abuses (Hasle and Vang, 2021). Our research also suggests that it is unlikely that firms with poor performance in corporate sustainability can address modern slavery in their supply chains. It is thus essential to provide appropriate support to enable firms to build the necessary capabilities to improve their sustainability performance.

5.2 Practical implications

The practical implication for benchmarking current anti-slavery initiatives will strengthen labour standards accountability schemes and Environmental, Social and Governance (ESG) ratings to quantify risks, counter malpractices and directly responsible sourcing. In addition, ethical procurement policy must make it clear to suppliers that compliance with requirements related to the Code of Conduct is mandatory (Lambretch, 2020). On the other hand, suppliers should act ethically to mitigate labour exploitations among their workers. Simpson *et al.* (2021) analysed the role of psychological distance in organisational responses to modern slavery risk in supply chains. Undoubtedly, much should be done to tackle modern slavery, and our research provides important practical implications. Invariably, procurement professionals that can identify a higher risk of modern slavery during supplier selection are more likely to address the threat (Wu *et al.*, 2021). The paper draws on our practical intervention and institutional logic to enable other researchers to design more effective modern slavery initiatives. Although, reviewing supply chain policies will help prevent modern slavery in supply chains.

Alamgir and Banerjee (2019) found that a firm's performance in addressing modern slavery could become part of the criteria for obtaining governmental contracts, and the private sector could also be encouraged to follow this practice. Similarly, the government and private industry could adopt a zero-tolerance policy, terminating contracts with firms when they identify modern slavery in their supply chains. However, policymakers should realise that not all firms can address contemporary slavery issues, mainly when these issues occur in extended supply chains (Hasle and Vang, 2021). Therefore, firms must improve their corporate sustainability performance, making them more capable of addressing modern slavery in supply chains. In addition, firms need practical steps to manage the risks when sourcing products and services. However, there is a need for a practical, comprehensive approach to consolidate data from multiple sources and across various dimensions to identify and prevent modern slavery in supply chains (Martijn *et al.*, 2022).

5.3 Managers implications

Supply chain managers need to understand the fundamental elements of the existing supply management initiatives to prevent modern slavery from occurring. Accordingly, benchmarking supply chain management initiatives can promote the current state assessment and give a clear view of performance drivers, costs, and quality, which enable the organisation to enhance performance, improve customer satisfaction, and ensure compliance (Bhattacharya and David, 2018). Essentially, there are significant and compelling reasons from a moral and business perspective as to why investors and companies should take steps to prevent modern slavery risks and remediate occurrences of modern slavery when it happens. Therefore, supply chain managers that employ benchmarking in their organisation will achieve excellence and gain a competitive advantage as it will help enhance continuous improvement to measure modern slavery risk.

Over the years, top management interest has been centred around social sustainability because of constant pressure from international buyers, especially for factory workers' health and safety improvements (Hasle and Veng, 2021). The supply chain manager can have a contractual clause to terminate a contract if there is modern slavery in the supply chain. According to Hicks (2021), supply chain managers play an essential role between the organisation, the supply base, and workers. Benchmarking supply chains can help increase labour governance's effectiveness more broadly. According to Simpson et al. (2021), top managers believe competitiveness is achievable with low labour costs and a safe working environment. Outhwaite and Martin-Ortega (2019) demonstrated the importance of redefining supply chain worker-driven monitoring, to improve labour rights in global supply chains. However, regular interaction with suppliers will improve their activities against labour exploitation.

5.4 Practitioner implication

Practitioners in companies are taking steps to trace their supply chains beyond first-tier suppliers to demonstrate their commitment to preventing modern slavery (New, 2015). Consequently, investors can use the benchmark results to engage with potential buyers, encouraging the adoption of best practices. In addition, benchmarks can influence company practitioners to uphold labour standards. For example, the COVID-19 pandemic and its aftermath have further raised the pressure on suppliers to produce items ethically to eradicate forced labour from their supply chains (Chazal and Raby, 2021). Although, there is a strong moral case for addressing modern slavery, which resonates with supply chain practitioners, consumers, and external stakeholders. However, to effectively respond to modern slavery, companies must develop a transparent benchmark methodology addressing

all the relevant initiatives. Although, a collaborative approach to the detection and remediation of modern slavery is meaningless if the buyer's internal practices are not continually reviewed (Islam *et al.*, 2018).

Supply chain practitioners of firms are obligated to adopt a Code of Conduct that expresses corporate commitment to legal compliance, ethical standards, and fundamental human rights as described in the International Labour Organisation's international law on forced labour (Islam and Van Staden, 2021). Nevertheless, companies need to ensure that the voices of vulnerable workers far down their supply chains are heard and responded to accordingly. In addition, internal decision-makers and suppliers' management teams adopt best practices in training on forced labour indications through benchmarking. Furthermore, companies should ensure that supplier training extends to high-risk suppliers throughout the supply chain, significantly beyond first-tier suppliers.

6 Conclusion

Background theory: As a novel phenomenon, it offers potential for innovations to improve social sustainability in the global supply chain. Accordingly, the issue of modern slavery has been raised consistently in international forums. However, the problem of modern slavery in the current global economy is attracting increasing attention to benchmark best practices and policy circles. Consequently, the contributions published in this specially-themed section map out the theoretical developments in managing modern slavery in the supply chain. Furthermore, the benchmarking model provides information on the essential parameters for adequate due diligence in supply chains to prevent modern slavery.

Data theory: To explore this, we elaborate on the current developments. Alternatively, policymakers and practitioners need guidance to help them identify interventions with the most significant potential to prevent modern slavery. Policymakers require effective benchmark methodologies and technologies to verify labour contracts and wage payments, especially in developing economies with rising informal jobs. Therefore, a tailored novel and holistic internal benchmarking tool will encourage data sharing, measure, and improve the operational performance of modern slavery initiatives.

Key outcomes: The literature indicates that interventions have generally proven ineffective. Therefore, a need to benchmark the effectiveness by adopting best practices to mitigate modern slavery issues in supply chains. In addition, the benchmark methodology guides all researchers looking to improve current anti-slavery initiatives, especially interventions aimed at creating decent work. Essentially, designing a benchmark methodology that will measure

the performance of existing modern slavery initiatives will ensure proper working conditions among suppliers in supply chains.

Data Availability Statement

The authors confirm no potential conflict of interest and the data supporting the findings of this study are available within the article.

References

- Allain, J. Crane, A., LeBaron, G. and Behbahani, L. (2013). *Forced Labour's Business Models and Supply Chains*. Joseph Rowntree Foundation.
- Aliakbaria, A., and Seifbarghy, M. (2011) A Supplier Selection Model for Socially Responsible Supply Chain: *Journal of Optimization in Industrial Engineering*, 8(2), pp.41-53
- Alosani, M., Al-Dhaafri, H. S., and Yusoff, R. Z. (2016) Mechanism of benchmarking and its impact on organizational performance, *International Journal of Business and Management*, 11(10), pp. 172-183
- Alsamawi, A., Bule T., Cappa C., Cook, H., Galez-Davies, C. and Saiovici, C. (2019), *Measuring child labour, forced labour and human trafficking in global supply chains: A global Input-Output approach*. International Labour Organization, Organisation for Economic Co-operation and Development, International Organization for Migration and United Nations Children's Fund.
- Alamgir, F. and Banerjee, S.B. (2019), "Contested compliance regimes in global production networks: insights from the Bangladesh garment industry", *Human Relations*, 72(2) pp. 272-297.
- Annamma, J., John, F. S., Venkatesh, A., Wang, J. and Chan, R. (2012) Fast fashion, sustainability, and the ethical appeal of luxury brands, *Fashion Theory*, 16(3) pp. 273 – 296.
- Antonini C., Beck, C and Larrinaga, C. (2020), "Subpolitics and sustainability reporting boundaries. The case of working condition in global supply chains", *Accounting, Auditing and Accountability Journal*, 33(7) pp. 1535-1567
- Arowoshegbe, A., Uniamikogbo, E., and Atu, G. (2017). Accounting Ethics and Audit Quality in Nigeria. *Asian Journal of Economics, Business and Accounting*, 4, pp.1-15.
- Ardiana P, A., Nicolo, G., Zanellato, G., Manes-Rossi, F., and Tiron-Tudor, A. (2021) Corporate reporting metamorphosis: empirical findings from state-owned enterprises, *Social and Environmental Accountability Journal*, 41(1-2), p. 135
- Azfar, K, R, W., Khan, N, and Gabriel, H, F. (2014) Performance measurement: a conceptual framework for supply chain practices, *10th International Strategic Management Conference, (Procedia - Social and Behavioural Sciences* 150 (2014) pp.803-812
- Bai, C. and Sarkis, J. (2014), "Determining and applying sustainable supplier key performance indicators", *Supply Chain Management: An International Journal*, 19(3), pp. 275-291.
- Bales, K. and Trodd, Z. (2013), *Addressing contemporary forms of slavery in EU external policy: Briefing Paper for the European Parliament's Subcommittee on Human Rights*, European Union. Belgium.
- Baharoglu, D., Zupcevic, M., Mohora, E, and Tryputen, S. (2018) Environmental, Social, and Governance Advisory Services in Europe and Central Asia, creating value for companies in the real sector. International Finance Corporation IFC, World Bank Group.
- Bansal, T. and Wyss, Y. (2013) *Talking the human rights walk: Nestle's experience assessing human rights impact in business activities*. Danish Institute for Human rights and Neste.
- Barrientos S. (2013) "Labour Chains': Analysing the Role of Labour Contractors in Global Production Networks', in *Journal of Development Studies*, 49(8) pp.1058-1071.
- Baur, D., and Palazzo, G. (2011). The moral legitimacy of NGOs as partners of corporations. *Business Ethics Quarterly*, 21: 579-604.
- Benstead, A.V., Hendry, L.C. and Stevenson, M. (2021), "Detecting and remediating modern slavery in supply chains: a targeted audit approach", *Production Planning and Control*, 32(13) pp. 1136-1157
- Bernards, N, (2017) The global politics of forced labour, *Globalizations*, 14 (6). pp. 944-957
- Benton, D. (2018) SAP Ariba and the transforming landscape of procurement; As the supply chain industry continues to evolve, SAP Ariba plays a key role in defining the future of procurement. *SAP Ariba Deloitte*, May, p.114
Available at: <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Technology/gx-supply-chain-digital-sap-ariba.pdf>
[Accessed: 28 December 2020]
- Birnie, Z. and Rotchild, L. (2018) CCSR Canadian Business for social responsibility, Sustainable supply chain management in Canada.
Available at: <https://irp-cdn.multiscreensite.com/6a4e36b0/files/uploaded/CCSR%20Sustainable%20Supply%20Chain%20Management.pdf>

[Accessed: 15 November 2020]

Brintrup, A. (2010) Behaviour adaptation in the multi-agent, multi-objective and multi-role supply chain, *Computers in Industry* 61(1), pp. 636–645,

Beadle D, and Davison L, (2019) Precarious Journeys Mapping vulnerabilities of victims of trafficking from Vietnam to Europe. Pacific Link foundation, Anti-slavery, and ECPAT UK.

Available at: <https://www.antislavery.org/wp-content/uploads/2019/03/Precarious-Journeys-full-report.pdf>

[Accessed 03 April 2021]

Bodenheimer, M. (2018) Transition towards socially sustainable behavior? An analysis of the garment sector, *Working Paper Sustainability and Innovation*, No. S07/2018, Fraunhofer ISI, Karlsruhe,

Bhattacharya, A., and David, D., (2018) An empirical assessment of the operational performance through internal benchmarking: a case of a global logistics firm. *Production Planning and Control*, pp.1-39

Brahler, V., Speed, L., and Oliver, G. (2017) Measurement framework for equality and human rights. Equality and Human Rights Commission, Manchester.

Buck, L, E, (2019) Modern slavery in the Global Supply Chain: An Analysis of published preventive statements and frameworks to protect businesses and individuals, *Journal of Undergraduate Research Creativity*, 2(4) pp. 1-42.

Brandenburg, M., Gruchmann, T, and Oelze, N. (2019) Sustainable supply chain management- A conceptual framework and future research perspective, *MDPI Sustainability*: 2019, 11, pp. 7239.

Brandenburg, M., Govindan, K., Sarkis, J., and Seuring, S. (2014) Quantitative models for sustainable supply chain management: Development and directions, *European Journal of Operation Research*, 233(2), pp.299-312.

Brintrup, A. (2010) Behaviour adaptation in the multi-agent, multi-objective and multi-role supply chain. *Computer in industry*, 61(1), pp. 636-645

Carter, C.R. and Jennings, M.M. (2002), "Logistics social responsibility: an integrative framework", *Journal of Business Logistics*, 23(1), pp. 145-180.

Carter, J.R., Maltz, A., Maltz, E., Goh, M. and Yan, T. (2010) 'Impact of culture on supplier selection decision making', *The International Journal of Logistics Management*, 21(3), pp.353–374.

Chazal, R., and Raby, K. (2021) The impact of Covid-19 on the identification of victims of modern slavery and their Access to support services in Australia, *Journal of Modern Slavery*, 6(2), pp.30-50.

Crane, A. (2013). Modern slavery as a management practice: Exploring the conditions and capabilities for human exploitation. *Academy of Management Review*, 38: pp. 49-69.

Crane, A., LeBron, G., Allain, J, and Behbahani, L. (2019) Governance gap in eradicating forced labour: from global domestic supply chain, *Regulation and Governance* 13 (1) pp. 86-106

Connor, T., Delaney, A. and Rennie, S. (2016) The Ethical Trading Initiative: Negotiated solutions to human rights violations in global supply chains? *Corporate Accountability Research*, 2(2) pp.1-57

Cousins, P., Dutordoir, M., Lawson, B., and Neto, J.Q.F. (2020), "Shareholder wealth effects of modern slavery regulation", *Management Science*, 66(11), pp. 5265-5289.

Cruz-Benito, J. (2016) Systematic Literature Review & Mapping.

DOI: [10.5281/zenodo.165773](https://doi.org/10.5281/zenodo.165773)

Datta, M.N. and Bales, K. (2013), "Slavery Is Bad for Business: Analyzing the Impact of Slavery on National Economies", *Brown Journal of World Affairs*, 19(2), pp. 205-223.

Davies, I.A. and Crane, A. (2003) 'Ethical decision making in fair trade companies', *Journal of Business Ethics*, 45, (1/2), pp.79–92.

Dubey, R., Bryde, D, J., Foropon, C., Tiwari, M., and Gunasekaran, A. (2021) How frugal innovation shape global sustainable supply chains during the pandemic crisis: lessons from the COVID-19. *Supply Chain Management an International Journal*, DOI 10.1108/SCM-02-2021-0071

Duchon, E. (2019) Environmental, Social Responsibility and Corporate Governance Policy, LaSalle investment management, Chicago

- Denyer, D., and Tranfield, D. (2006) Using Qualitative Research Synthesis to Build an Actionable Knowledge Base. Article in *Management Decision*, 44(2), pp. 213-227.
- Dragolea L., and Cotirlea D., (2009) Benchmarking - A Valid Strategy for the Long Term? *Annales Universitatis Apulensis Series Oeconomica*, 11(2), pp. 813-8825
- Emberson, C. (2019) Tackling slavery in supply chains, lessons from Brazilian- UK beef and timber: University of Nottingham right lab.
- Felice, D. (2015) Business and human rights indicators to measure the corporate responsibility to respect: Challenges and opportunity. *Human Rights Quarterly*, 37(2), pp.511-555.
- Flynn, A. (2019). Determinants of corporate compliance with modern slavery reporting. *Supply Chain Management* 25 (1), pp. 1-16.
- Farsang, A., Temmes, A., Schönherr, N., Reisch, L.A., and Wiman, A. (2017) The quick human rights compliance assessment-A global value tool showcase. DOI.10.13140/RG.2.2.19509.78566
- Forde, C. and Slater, G. (2014). The effects of Agency Workers Regulations on agency and employer practice, ACAS Research Paper, London
- Gardner, A. (2017) *Collaborating for freedom: anti-slavery partnership in the UK. University of Nottingham right Lab and Anti-Slavery commissioner*
- Gabrielle, H. Lise, S. and McCorquodale, R. (2018) Making sense of manging human right issues in supply chains. *British Institute of International and Comparative Law*
- Geng, R., Lam, K., and Stevenson, M., (2022) Addressing Modern Slavery in Supply Chains: An Awareness-Motivation-Capability Perspective, *International Journal of Operations and Production Management*, 42 (3). pp. 331-356.
- Gold, S., Trautrim, A. and Trodd, Z., (2015). 'Modern Slavery Challenges to Supply Chain Management'. *Supply Chain Management: An International Journal*, 20(5) pp.485-494.
- Gold, S. Chesney, T., Gruchman, T., and Trautrim A. (2020) Diffusion of labour standards through supplier-subcontractor networks: An agent-based model. *Journal of Industrial Ecology*, 20(20). pp.1-13.
- Green, A., and Owen, D. (2019) *How has the UK Warehousing sector been affected by the fissuring of the worker-employer relationship in the last 10 years?* London, IFF Research
- Giannakis, M., Dubey, R., Vlachos, I. and Ju, Y. (2020) Supplier sustainability performance evaluation using the analytic network process, *Journal of Cleaner Production*, 247(1), pp.0959-6526.
- Gong, Y., Jiang, Y., and Jia, F., (2021): Multiple multi-tier sustainable supply chain management: a social system theory perspective, *International Journal of Production Research*,
- Hasle, P. and Vang, J. (2021), "Designing better interventions: Insights from research on decent work", *Journal of Supply Chain Management*, 57(2), pp. 58-70.
- Hertwich, E. G., and Peters, G. P. (2010) Multi-regional input output database. *One Planet Economy Network* Technical document. Surrey
- Hicks, J., (2021) Approaches to combatting modern slavery in supply chains. K4D Helpdesk Report 255. Brighton, UK: Institute of Development Studies.
- Hornberger, B. and Rangu, S. (2020) "Designing Inclusion and Exclusion Criteria" *Scholarly Commons* (2020). 1.
- Huls, H., Abdulahad, S., Mackus, M., van de Loo, A.J.A.E., Roehrs T., Roth, T., and Verster, J. C. (2018) Inclusion and Exclusion Criteria of Clinical Trials for Insomnia. *Journal of Clinical Medicine*. 7, 206.
- Heerden, A. V. (2015) *Identifying, managing, mitigating, and preventing forced labour and modern slavery in supply chain: Ethical Trading Initiative*. London: ETI.
- Haider, H. (2017). *Modern slavery in the DRC*. K4D Helpdesk Report. Brighton, UK: Institute of Development Studies.
- Hoang, D. (2019) Labour Standards in the Global Supply Chain: Workers' Agency and Reciprocal Exchange Perspective, *Societies*, 9, 38; doi:10.3390/soc9020038
- Hofmann, H., Schleper, M. C and Blome, C. (2018) Conflict minerals and supply chain due diligence: an exploratory study of multi-tier supply chains. *Journal of Business Ethics*, 147(1) pp.115-141.

- Huq, F. A., Stevenson, M., and Zorzini, M. (2014). Social sustainability in developing country suppliers: An exploratory study in the readymade garments industry of Bangladesh. *International Journal of Operations & Production Management*, 34(5), pp.610–638.
- Hertwich, E. G., and Peters, G. P. (2010) Multi-regional input output database. *One Planet Economy Network* Technical document. Surrey
- Huq, F. A., Chowdhury, I. N., and Klassen, R. D. (2016). Social management capabilities of multinational buying firms and their emerging market suppliers: An exploratory study of the clothing industry. *Journal of Operations Management*, 46, pp.19–37.
- Irving, E. (2016). *Modern slavery: How new regulation will impact consumer companies*. Schrodgers Investment, Talking Point.
- Idris, I. (2017). *Interventions to combat modern slavery*. K4D Helpdesk Report 255. Brighton, UK: Institute of Development Studies.
- Iqbal, Q. (2018) Scopus: Indexing and abstracting database.
DOI:[10.13140/RG.2.2.12974.15683](https://doi.org/10.13140/RG.2.2.12974.15683)
- Islam, M. A., and Van Staden, C. J. (2018). Social movement NGOs and the comprehensiveness of conflict mineral disclosures: Evidence from global companies. *Accounting, Organizations and Society*, 65, pp.1–19.
- Islam, M.A., Van Staden, C.J. (2021) Modern Slavery Disclosure Regulation and Global Supply Chains: Insights from Stakeholder Narratives on the UK Modern Slavery Act. *Journal of Business Ethics*. <https://doi.org/10.1007/s10551-021-04878-1>
- Jareb, B, Cvahte, T and Rosi, B (2014) Risk assessment model and supply chain risk catalog: 11, pp. 35-46.
- Judge L. (2018) *The good, the bad and the ugly: The experience of agency workers and the policy response*, Resolution Foundation, London.
- Judge L. and Tomlinson D. (2016) *Secret Agents: agency workers in the new world of work*, Resolution Foundation, London.
- Kruse, C, S. (2019) Writing a Systematic Review for Publication in a Health-Related Degree Program. *JMIR Research Protocol*; 8(10): e15490, p.1.
- Kim, S., Colicchia, C, and Menachof, D. (2016) Ethical Sourcing: An Analysis of the Literature and Implications for Future Research. *Journal of Business Ethics*, 152, pp.1033-1052.
- Lake, Q., MacAlister, J., Berman, C, Gitsham, M, and Page, N. (2016). *Corporate Leadership on Modern Slavery: How have companies responded to the UK Modern Slavery Act one year on? – Summary Report*. Ethical Trading Initiative and Hult Business School.
- Lame, G. (2019) 'Systematic Literature Reviews: An Introduction', in *Proceedings of the 22nd International Conference on Engineering Design (ICED19)*, Delft, The Netherlands, 5-8 August 2019.
- Lambrechts, W, (2020) Ethical and Sustainable Sourcing: Towards Strategic and Holistic Sustainable Supply Chain Management. Decent Work and Economic Growth. Encyclopaedia of the UN Sustainable Development Goals. *Springer, Cham*, pp. 402-414
- Lamm, F., Moore, D., Nagar, S., Rasmussen, E., and Sergeant, M. (2017) Under Pressure: OHS of Vulnerable Workers in the Construction Industry. *New Zealand Journal of Employment Relations*, 42(2): 39-60
- LeBaron, G., and Rühmkorf, A., (2021) Commercial contracts and sourcing, Re:Structure Lab. Forced Labour Evidence Brief.
- LeBaron, G. (2013). Subcontracting Is Not Illegal, but Is It Unethical: Business Ethics, Force Labour, and Economic Success. *Brown Journal of World Affairs*, 20, 237.
- LeBaron, G., and Lister, J. (2015). Benchmarking global supply chains: The power of the 'ethical audit' regime. *Review of International Studies*, 41(05), pp. 905-924.
- Leon, R, and Juan, A, A, (2014) Promoting corporate social responsibility in logistic throughout horizontal cooperation. *Managing Global Transition* 12(1), pp.79-93.
- LeBaron, G., (2014) Reconceptualizing Debt Bondage: Debt as a Class-Based Form of Labour Discipline, *Critical Sociology* 40(5), pp. 763-780

- Liu, W., Bai, E., Liu, L, and Wei, W. (2017) A Framework of Sustainable Service Supply Chain Management: A Literature Review and Research Agenda, *Sustainability Article*, 9, p. 421. doi:10.3390/su9030421
- Lund-Thomsen, P. and Lindgreen, A. (2014), "Corporate Social Responsibility in Global Value Chains: Where Are We Now and Where Are We Going?", *Journal of Business Ethics*, 123(1), pp. 11-22.
- Livinski, A., Joubert, D., and Terry, N. (2015) Undertaking a Systematic Review: What You Need to Know
- Martijn, F. M., Babchisan, K. M., Pullman, L. E., Roche, K., and Seto, M. C (2022) Attraction to Physical and Psychological Features of Children in Child-Attracted Persons, *The Journal of Sex Research*, 59(3), pp. 391-402
- Marx, A., Conrad, M., Aizunger, V., Prechtel, A., and Barth, J. A.C. (2018) Groundwater data improve modelling of headwater stream CO₂ outgassing with a stable DIC isotope approach *Biogeosciences* 15(10) pp. 3093-3106
- Martin-Ortega, O. (2014). Human rights due diligence for corporations: From voluntary standards to hard law at last? *Netherlands Quarterly of Human Rights*, 32(1), 44–74.
- Martin-Ortega, O., and O'Brien, C. M. (2017). Advancing Respect for Labour Rights Globally through Public Procurement. *Politics and Governance*, 5(4), 69-79.
- Mayer, W. F., and Phillips, N. (2017) Outsourcing governance: states and the politics of a 'global value chain world', *New Political Economy*. DOI:10.1080/13563467.2016.1273341
- Mattick, K., Johnston, J., and de la Croix, A (2018) 3,4 How to...write a good research question. *Article in The Clinical Teacher*, 15: pp.104–108.
- Moher, D., Liberati, A., Tetzlaff, J. and Altman, D.G. (2009) Preferred reporting items for systematic reviews and meta-analyses: the PRISMA Statement *Open_Medicine* 3(3): pp.123-30
- Magesh, V. S. (2016) Modelling Approaches for a Sustainable Supply Chain: *Proceedings of the 2016 International Conference on Industrial Engineering and Operations Management*. Kuala Lumpur, March 8-10. Malaysia: IEOM, pp. 607-612.
- Martinez, J., N. (2015) *Servants of server's Rights violations and forced labour in the supply chain of ICT equipment in European universities*, Danwatch. Amsterdam: Good Electronics publishing.
- Martin-Ortega, O., Outhwaite, O., and Rook, W. (2015) Buying power and human right in the supply chain: legal options for socially responsible public procurement of electronic goods. *The International Journal of Human Rights*, 19 (3) pp. 341-368.
- Martin-Ortega, O and Davies, A (2016) Chattered Institute Of procurement and Supply chain: Protecting Human Right in The Supply chain. London university purchasing consortium, University of Greenwich and Chartered institute of procurement and supply.
- Mani, V., A. Gunasekaran, and C. Delgado, (2018) Enhancing supply chain performance through supplier social sustainability. *International Journal of Production Economics*, 195: pp. 259-272.
- Mani, V. Sharma, V. Agrawal, R. (2014) Supplier selection using social sustainability: AHP based approach in India. *International strategic management review*, (2) pp. 98-112.
- McGrath, S. (2013). Fuelling global production networks with slave labour? Migrant sugar cane workers in the Brazilian ethanol GPN. *Geoforum*, 44, pp.32- 43.
- McGaughey, F. (2021) Covid 19 and Modern slavery. *Journal of Modern Slavery*. 6(2), pp.216-230
- Michailova, S and Stringer, C. (2018). Tackling modern slavery, the ugliest phenomenon of our times: An invitation to the IB scholarly community. *AIB Insights*, 18(2), pp.7 -10.
- Mezzadri, A. (2014) Are ethical initiatives successful in India garment industry? A focus on homeworkers, *Centre for Development Policy and Research*, SOAS, Development viewpoint, 83, pp. 1-2.
- Monaghan, R., Weber, F. and Moote, K. (2018) *Eradicating forced labour in electronics: What do company statements under the UK Modern Slavery Act tell us? Know the Chain*. Available at: https://knowthechain.org/wp-content/uploads/KTC-ICT-MSA-Report_Final_Web.pdf [Accessed: 13 February 2021]
- Musto, J. L, and Boyd, D. (2014). 'The Trafficking–Technology Nexus', *Social Politics*, 21(3): 461–83.
- Meehan, J., and Pinnington, B. D., (2021). Modern slavery in supply chains: insights through strategic ambiguity. *International Journal of Operations and Production Management*, 41(2), pp. 77-101.

- McGrath, S, and Mieres, F, (2017) Addressing the demand side in and through supply chain: Mapping the field of initiative around human trafficking, forced labour and slavery. DemandAT working paper no.8. pp.1-27.
- McGough, M. Q. (2013) Ending modern-day slavery: Using research to inform U.S. antihuman trafficking effort, *NIJ Journal*, 217, pp.26-32.
- Morais, D, O, C., and Barbieri, J, C. (2016) Social performance measurement for sustainable supply chain management, *Production and Operation Management Society Conference Orlando*, Vol 27.
- Nishinaga, J. and Natour, F. (2019) "Technology Solutions for Advancing Human Rights in Global Supply Chains," Human Rights Center, UC Berkeley,
- New, S. (2015). *Modern Slavery and the Supply Chain: The Limits of Corporate Social Responsibility*. Pre-publication version of paper published in *Supply Chain Management: An International Journal*, 20(6), pp. 697–707.
- O'Brian, M., C. and Martin-Otega, O. (2020) EU human right due diligence legislation: Monitoring, enforcement, and access to justice for victims. European Parliament. Belgium
- Outhwaite, O, and Martin Ortega, O. (2019) *Worker-driven monitoring –Redefining supply chain monitoring to improve labour rights in global supply chains*. *Competition and Change*, 23 (4). pp. 378-396.
- Obarisiagbon, E, I., and Ijegbai, R, U. (2019) Curbing the Social Menace of Modern Slavery in Edo State, Nigeria: The Law and Criminal Justice System, a Panacea? *European Scientific Journal*, 15(2), pp. 45-56.
- Odia, J, O. (2018) Modern slavery in the global supply chain: The challenges of legislation and mandatory disclosure, *41ST Conference of the Nigerian society for international law (NSIL) security, human trafficking and international law*, Edo, 22-23, November 2018.
- Ogunyemi, T., Spiegler, V, and Ayios, A. (2016) Socially responsible purchasing practices and supply chain performance in the food and beverage industry. *Conference: Production and Operations Management Society 2016 27th annual conference 6-9 May: Orlando Florida IPSERA*. Pp.1-12
- Parella, K., (2019) Human right compliance in supply chains, *Notre Dame Law Review* 95(2), pp. 727-794.
- Pinnington, B., Meehan, J., and Trautrim, A. (2021) Implications of Covid-19 for modern slavery challenges in supply chain management. *Modern Slavery and Human Rights Policy and Evidence Centre*. London. Art and Humanity Research Council.
- Piper, R, J. (2013) How to write a systematic literature review: a guide for medical students, National AMR.
- Paul, A.; Shukla, N.; Paul, S.K.; Trianni, A. (2021) Sustainable Supply Chain Management and Multi-Criteria Decision-Making Methods: A Systematic Review. *Sustainability*, 13, 7104.
- Quarshie, A., and Salmi, A. (2014) CSR and Ethics in Supply Networks: the case of human trafficking: 30th IMP Conference, .3-6.9.2014, Bordeaux, France; Corporate Social Responsibility, Ethics, and Sustainability in Business Networks, pp. 1-6
- Rubio, J.J.A and Yiannibas, K. (2017). Human rights in business: Removal of barriers to access to justice in the European Union (eds). Routledge, London.
- Ruggie, G.J., (2014) Global Governance and "New Governance Theory": Lessons from Business and Human Rights, *Global Governance* 20 (2014), 5–17
- Sarkis, J. (2020), "Supply chain sustainability: learning from the COVID-19 pandemic", *International Journal of Operations & Production Management*, 41(1), pp. 63-73.
- Sajjad_A_ (2021), "The COVID-19 pandemic, social sustainability and global supply chain resilience: a review", [Corporate Governance](#), 21 (6), pp. 1142-1154.
- Simpson, D., Segrave, M., Quarshie, A., Kach, A., Handfield, R., Panas, G. and Moore, H. (2021), "The role of psychological distance in organisational responses to modern slavery risk in supply chains", *Journal of Operations Management*, 67(8), pp. 989-1016.
- Saeed, M, A. and Kersten, W. (2017) Supply chain sustainability performance indicator: A content analysis based on published standards and guidelines, *Logistic Research* 10(12), pp.1-19.

- Sereni, A., and Baker, C. (2018) Before the Harm is Done: Examining the UK's response to the prevention of trafficking. The Anti-Trafficking Monitoring Group, London
- Siddaway, A. P., Alex M. Wood, A. M., and Larry V. Hedges, L. V. (2019) How to do a systematic review: A best practice guide to conducting and reporting narrative reviews, meta-analyses, and meta-syntheses *Article in Annual Review of Psychology* 70(1)
- Sherman, J., F., (2021) Human Rights Due Diligence and Corporate Governance. Corporate Responsibility Initiative, Harvard Kennedy School, Working Paper No. 79
- Simatupang, T., M., and Sridharan, R., (2003) A benchmarking scheme for supply chain collaboration *Benchmarking: An International Journal*, 9(6), pp.1-26.
- Siksnylyte-Butkiene, I.; Streimikiene, D.; Balezentis, T.; Skulskis, V. A (2021) Systematic Literature Review of Multi-Criteria Decision-Making Methods for Sustainable Selection of Insulation Materials in Buildings. *Sustainability*, 13, 737.
- Sitran, A., and Pastori, E. (2013) Social and Working Conditions of Road Transport Hauliers. European Parliament.
- Sánchez-Flores, R. B., Cruz-Sotelo, S. E., Ojeda-Benitez, S. and Ramírez-Barreto, M. E. (2020) Sustainable Supply Chain Management—A Literature Review on Emerging Economies, *Sustainability*, 12, 6972.
- Santos, A. T., Hooper, M., Evans, N. and Dannenmaier, V. (2012). The landmark project moving towards socially responsible procurement. Good practice in socially responsible public procurement; Approaches to verification across Europe. Available at: https://landmark-project.eu/fileadmin/files/en/latest-achievements/LANDMARK-good_practices_FINAL.pdf [Accessed: 10 December 2020]
- Smith, A. and Johns, J. (2020) Historicizing Modern Slavery: Free-Grown Sugar as an Ethics-Driven Market Category in Nineteenth-Century Britain, *Journal of Business Ethics*, 166, pp 271-292.
- Szymonik, A. (2012) *Logistics and Supply Chain Management* Available at https://www.researchgate.net/publication/297369572_Logistics_and_Supply_Chain_Management [Accessed 01 May 2021]
- Tachizawa, E. M., and Wong, C. Y. (2014). Towards a theory of multi-tier sustainable supply chains: A systematic literature review. *Supply Chain Management: An International Journal*, 19(5/6), 643–663.
- Taghavi, N., Adams, C., and Berlin, C. (2014). Social sustainability KPIs in operations management: a gap between the reactive and the proactive stance. Available at: <http://conferences.chalmers.se/index.php/SPS/SPS14/paper/viewFile/1756/428> [Accessed 08 May 2021]
- Taherdoost, H., and Brard, A. (2019) Analysing the process of supplier selection criteria and methods; The 12TH international conference interdisciplinarity in engineering. Kuala Lumpur. pp.1024-1034
- Tatzenko, J., Hart, C., and Hollister-Jones, A. (2019) *The 2019 Ethical Fashion Report the Truth Behind the Barcode*, Baptist World Aid Australia, Sydney: Cadence media
- Taylor, L. R., and Latonero, M. (2018), 'Updated Guide to Ethics and Human Rights in Anti-human Trafficking: Ethical Standards and Approaches for Working with Migrant Workers and Trafficked Persons in the Digital age. Issara Institute, Bangkok.
- Thelwall, M., and Sud, P. (2022) Scopus 1900–2020: Growth in articles, abstracts, countries, fields, and journals, *Quantitative Science Studies*, 3(1), pp. 1-17
- Tran, H., and Kummer, S. (2018) Supply chain risk assessment: A content analysis-based literature review *International Journal of Logistics Systems and Management* · 34(4) pp.411-430.
- Trautrimis, A. (2020). Modern Slavery Responses Need International Business Scholarship. *AIB Insights*, 20(2) pp.1-3.
- Tranfield, D., Denyer, D., and Smart, P., (2003) Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review, *British Journal of Management*, Vol. 14. pp.207-222
- Trautrimis, A., Pinheiro, S. M., Emberson, C., (2020) Adaptations to first-tier suppliers' relational anti-slavery capabilities, *Supply Chain Management: An International Journal*
- Tikito, I., El Arass, M., and Souissi, N., (2019) Meta-Analysis of Data Collection Methods, *Journal of Computer Science*, 15(8), pp. 1184-1194

- Vandergeest, P., Tran, O., and Marschke, M. (2017) Modern day slavery in Thai fisheries: academic critique, practical action, *Critical Asian Studies*, 49:3, 461-464,
- Vandergeest, P., and Marschke, M. (2019) Modern slavery and freedom: Exploring contradictions through labour scandals in the Thai fisheries, *A Radical Journal of Geography*, pp.1-25.
- Townsend, M., Watkins, C, and Hughes, H. (2016). 'Transparency in Supply Chains – the UK Modern Slavery Act'. *Business and Human Rights Review*. Summer 2016, Issue 4.
- Vakil, B. (2021) Supply chain resiliency start with supplier mapping: *Supply Chain Quarterly*
- Verité (2014) *Forced Labour in the Production of Electronic Goods in Malaysia a Comprehensive Study of Scope and Characteristics*. Available at: <https://www.verite.org/wp-content/uploads/2016/11/VeriteForcedLaborMalaysianElectronics2014.pdf> [Accessed 25 January 2021]
- Walker, H., and Jones, N. (2012). Sustainable supply chain management across the UK private sector. *Supply Chain Management: An International Journal*, 17(1), 15-28.
- Winter, S., and Lasch, R. (2016). "Environmental and Social Criteria in Supplier Evaluation—Lessons from the Fashion and Apparel Industry." *Journal of Cleaner Production*, 139: pp. 175–190.
- Wong, W, P., and Wong, K, W., (2008) A review on benchmarking of supply chain performance measures, *Benchmarking: An international Journal*, 15(1), pp 25-51
- Wu, Z., and Pagell, M. (2011) Balancing Priorities: Decision-Making in Sustainable Supply Chain Management, *Journal of Operation Management*, 29(6), pp. 577-590
- Wu, C., Zou, H., and Barnes, D., (2021) Supplier Selection in Sustainable Supply Chains: A Risk-Based Integrated Group Decision-Making Model, *Research Square*, pp. 1-25
- Yawar S, A, and Seuring, S. (2015). Management of Social Issues in Supply Chains: A Literature Review Exploring Social Issues, Actions and Performance Outcomes. *Journal of Business Ethics* 141(3), pp.621-643.
- Yawar, S, A., and Seuring, S., (2017) Management of Social Issues in Supply Chains: A Literature Review Exploring Social Issues, Actions and Performance Outcomes, *Journal of Business Ethics*, 141, pp 621-643
- Yun, G., Yalcin, M. G., Hales, D. N., and Kwon, H. Y. (2019: 2018). Interactions in sustainable supply chain management: a framework review. *The International Journal of Logistics Management*, 30(1), 140-173.
- Yusuf, Y., Hawkins, A., Musa, A., El-Berishy, N., Schulze, M. and Abubakar, T. (2014) 'Ethical supply chains: analysis, practices and performance measures', *International Journal of Logistics Systems and Management*, 17, (4), pp.472–497.
- Zhang, J.; Yang, D.; Li, Q.; Lev, B.; Ma, Y. (2021) Research on Sustainable Supplier Selection Based on the Rough DEMATEL and FVIKOR Methods. *Sustainability* **2021**, 13, 88.
- Zimmerman C, Kiss L (2017) Human trafficking and exploitation: A global health concern. *PLoS Med* 14(11), 1002437, pp.2-9.
- Zorzini, M., Hendry, L. C., Huq, F. A., & Stevenson, M. (2015). Socially responsible sourcing: Reviewing the literature and its use of theory. *International Journal of Operations & Production Management*, 35(1), pp.60–109.
- Zhou, X, and Xu, Z. (2018) An Integrated Sustainable Supplier Selection: Approach Based on Hybrid Information Aggregation, *Sustainability Article* 10, pp. 25-43.

Appendix A: - Modern slavery description and practices

Forced Labour	Human Trafficking	Child labour
Forced labour is a situation where an individual is working involuntarily through the menace of penalty or a situation where an individual is pressurised to work through threat of intimidation and violence or a subtle means of manipulated debt bondage, retention of identity documents or threat of reporting to immigration authority (Buck, 2019).	Human trafficking is the illegal recruitment and transportation of people across borders for exploitative reasons and financial gains, using coercion, threat, intimidation, abduction, and violence (McGaughey, 2021; Vaughn <i>et al.</i> , 2019). On the other hand, Domestic trafficking involves the movement of victims within a country, e.g., from rural zones to industrial or economic hubs (Obarisiagbon and Ijegbai, 2019).	Child labour is any work that deprives children of their childhood, potential, and dignity, which is harmful to physical and mental development (Alsamawi <i>et al.</i> , 2019).
25 million people in force labour		152 million children in child labour
63% (16 million Female), / 37% (9 million Male)	Servitude	58% (88million boys), / 42% (64 million girls)
19% State imposed force labour.	17% Sex trafficking	Sale, exploitation, and trafficking of children
bonded labour/ debt bondage	Organ trafficking	Forced and servile marriage

Source: Authors Illustration based on Haider (2017)