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Exploring relationship between environmentalism and consumerism in a market economy society: A structured systematic literature review



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ABSTRACT

Managing environmental sustainability has become a critical challenge and an essential agenda for academics and corporations alike. This study conducted evidence-based research to explore whether it is possible to maintain a balance between environmentalism and consumerism in a capitalist society. A triangulated approach is followed by combining systematic literature review (SLR) and text mining for cross-validation, thus, limiting subjective bias. The findings suggest that, although, it is possible to achieve a balance in the long run but this necessitate enormous amount of efforts and resources due to the complexity and paradoxical nature of environmentalism and consumerism coupled with the current way of capitalist societies' life. Building on the findings and the Operations Management Input-Transformation-Output model, a research framework is proposed. The proposed framework suggests that to keep a balance between environmentalism and consumerism in a capitalist society, a progressive and transformational change could be instrumental for a viable solution. Finally, building on current gaps in the research domain, six future research directions are proposed to carry forward the notion of environmentalism and consumerism in a capitalist society.

1. Introduction

Factors such as greenhouse gas (GHG) emission, household consumption and mass production have placed unprecedented stress on the planet earth leading to drastic climate changes and environmental catastrophes (Donmez-Turan and Kiliçlar, 2021). Household consumption alone contributes nearly 60% of global GHG emissions, including 50–80% natural resources use (Reisch et al., 2021). Modern production methods based on quick response and Just-in-Time philosophies, time-based competition and short product life cycle along with the availability of information and choice further transformed consumer behaviour increasing insatiable appetite to replenish products and services, destined to landfill (Rafi-Ul-Shan et al., 2018). Such production, consumption and behavioural issues not only question the availability of natural resources for our future generations but worry more for the current (Donmez-Turan and Kiliçlar, 2021).

Recent catastrophes and natural disasters such as rising temperatures, pandemics, fires, floods, hurricanes and tsunamis (e.g. COVID-19 and events in California, Australia, Brazil, Japan and Siberia in the Russian Federation etc.) exhibit increased humankind vulnerabilities and reduced resilience of existing environmental, social security and protection systems. Thus, leading to a call for relooking at the current economic and social structural systems for more robust interventions to transform existing production, consumption and behavioural patterns into more sustainable, clean and resilient (Reisch et al., 2021).

Capitalist economic system fundamentally based on the market economy with credit creation, private enterprise and ownership (Berend, 2015). The largest rise of societies based on the capitalist model appeared during the industrial revolution in countries such as the United States (Levy, 2017). Capitalism expressed through the organisation of production and distribution in commodity form of goods, services, outputs and values with a profit motive (Brayshay, 2009). The economic globalisation

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characterised by international flows of goods, services, and production factors have significantly increased and strengthened the globalisation of capitalism (Dahaj and Cozzarin, 2019). Since the 1980s, multinational corporations (MNCs) became the dominant form of capitalist company in almost every economic sector and region of the world (Radice, 2014). The literature sees capitalism both as a useful model that reduce poverty and raise income through economic growth but also as a model that brought individualism and high inequalities (Aulenbacher et al., 2018).

Industrialisation and mass production further give rise to consumerism (Berend, 2015). Consumerism movement boomed in the industrial revolution due to resource abundance and technological productivity and efficiency (Cowan et al., 2009). Historically, research on consumerism largely associated it with the spread of capitalism (Ali and Wisnieski, 2010) and considered it as cultural attitudes ensuring that rising income is used to purchase an ever-growing output (Brayshay, 2009). Consumerism has deeply influenced our way of life by transforming consumer needs and desires, continuously pushing for consumption and thus production (Yani-de-Soriano and Slater, 2009). Consumerism incorporates factors such as the omnipresence of advertising and an overarching idea that to be happier and successful, people must have more and better resources. Consumers in a capitalist society enjoy unprecedented individual comfort, convenience and choice (Lim, 2017).

Advancements in information and communication technologies has increased consumer awareness of ethics, morality, human welfare and environmental issues (Kutaula and Gillani, 2018). Today's consumer is aware of the environmental impact of business operations and those of the products and services they are buying and consuming (Rafi-Ul-Shan et al., 2018). Consequently, consumers can choose to avoid buying products that are incompatible with their environmental ideology (Golob and Kronegger, 2019). As a result, businesses have started focusing on sustainable production through sustainable materials and initiatives and promoting sustainable consumption (Rafi-Ul-Shan et al., 2018). Sustainable consumption includes a range of distinct behaviours and consumption types (Akehurst et al., 2012) and, ethical and green consumerism is no longer considered as niches for academic scholars; instead, understanding consumer behaviour is the core activity of corporations and researchers across disciplines (Ribeiro et al., 2019).

Our initial review of the literature on environmentalism and consumerism in a capitalist society identified the following major gaps. First, the extant research has explored the relationship between economic system and society (Steane and Dufour, 2010), yet the relationship between environmentalism and consumerism in a capitalist society is unknown (Schandl et al., 2016). In the context of environmentalism, the extant literature supporting the capitalist model proposes new theory such as green capitalism whereas other researchers support designing a new system model that could allow taking into account nature (Sandberg et al., 2019). In the context of consumerism, new theories and models also arise with concepts such as green consumerism, anti-consumption and eco-friendly products (Balderjahn et al., 2018). Similarly, the extant empirical research investigated capitalism and environmentalism (Schandl et al., 2016) or consumerism and environmentalism (Ertz et al., 2016). The combined relationship of environmentalism and consumerism in a capitalist society remains yet fully unexplored that motivates this research.

Second, despite substantial efforts, the green movement did not succeed as theorists might have expected (Atkinson, 2014). The extant literature reported limited impact of green movements (Paço et al., 2019) and argued that the complexity of the purchasing behaviour have to be also considered (Akehurst et al., 2012). The complex paradox between environmental awareness and purchase attitude becomes a barrier for green consumption and sustainability initiatives (Rafi-Ul-Shan et al., 2018). Third, taking into account the actual social and economic implications of climate change, the continuous global economic growth and the system complexity are and will continue to increase environmental degradation and pollution (Cadez and Guilding, 2017). Although, the scientific community is alarming about environmental issues, however,

there is no public administration body that has the capacity to direct MNCs to consider sustainable development and be socially responsible in their production and use of resources (Atkinson, 2014).

To address these gaps, this study carried out a structured systematic literature review to synthesise fragmented literature and explore relationship between environmentalism and consumerism in a capitalist society. The contributions in carrying out this study and analysing the extant empirical research are as follows: First, the novelty is to adopt a triangulated approach by combining systematic literature review and text mining and, thus, limiting the biasness to ensure research quality. Second, knowledge gaps are identified by categorising key contributions to the topic from various perspectives and proposing six future research directions to advance the scholarly debate in the research domain. Third, an Input-Transformation-Output model is proposed suggesting a gradual transformation of capitalist society for environmentalism by minimising attitude behaviour gap through various interventions in the transformation process. The novelty of the proposed model lies in its iterations based on the desired-undesired outputs, modifications of interventions and inclusion of diverse inputs for desired outputs.

2. Methodology

This study followed a SLR method that is an evidence-based approach to identify, select and analyse the most relevant secondary data providing deep understanding about already known and highlighting knowledge gaps for the future research (Rafi-Ul-Shan et al., 2018). Its key principles (i.e. transparency, inclusivity and an explanatory and heuristic nature) allow a more objective overview of search results and reduce issues of bias and error (Denyer and Tranfield, 2009). The applications of SLR is more pronounced in certain contexts, for example, when there is uncertainty about the effectiveness of a policy and when evidence of the likely effect of an intervention is required. Finally, when a general or an overall picture of evidence in a topic area is needed to direct future research efforts (Makhashen et al., 2020). Fig. 1 shows various phases of SLR methodological process followed in this research.

The first phase of SLR is concerned with defining the scope of the study in conjunction with the objectives. This study has followed Rafi-Ul-Shan et al.'s., (2018) approach to SLR using context, intervention, mechanisms and outcome (CIMO) elements as an initial framework: *Context (C)* denotes individuals, relationships, institutional settings or wider systems that are studied. *Interventions (I)* refer to the effects of the events, actions or activities are studied. *Mechanisms (M)* are relationships between interventions and outcomes and under which circumstances these mechanisms are activated or not. Finally, *Outcomes (O)* refer to the effects of the intervention including how outcomes are measured and what are the intended and unintended effects.

In the context of CIMO logic, the main emergent themes were global environmental concerns, events and catastrophes including environmental degradation, natural resource consumption and depletion, global warming and growing interest of multiple stakeholders in environmental, social and operational impacts of production and consumption in a capitalist society (C). Strategies and practices for resource conservation, preserving the natural environment and sustainable practices of businesses and societies (I). Sustainable development processes and protocols for natural resource conservation (M). Environmental preservation, better awareness about the environmental issues and the role that different stakeholder can play in a capitalist society, including businesses (O). Accordingly, the research objective is to explore whether it is possible to maintain a balance between environmentalism and consumerism in a capitalist society, as shown in Fig. 1, with resulting combinatory environmentalism and consumerism in a capitalist society research gap.

The second phase was concerned with the identification of keywords relevant to the research objectives and subject areas to appropriately position in this study. In total, 29 keywords were identified after extensive discussions and multiple brainstorming sessions among the authors. Initial keywords were refined by combining them into a series of search

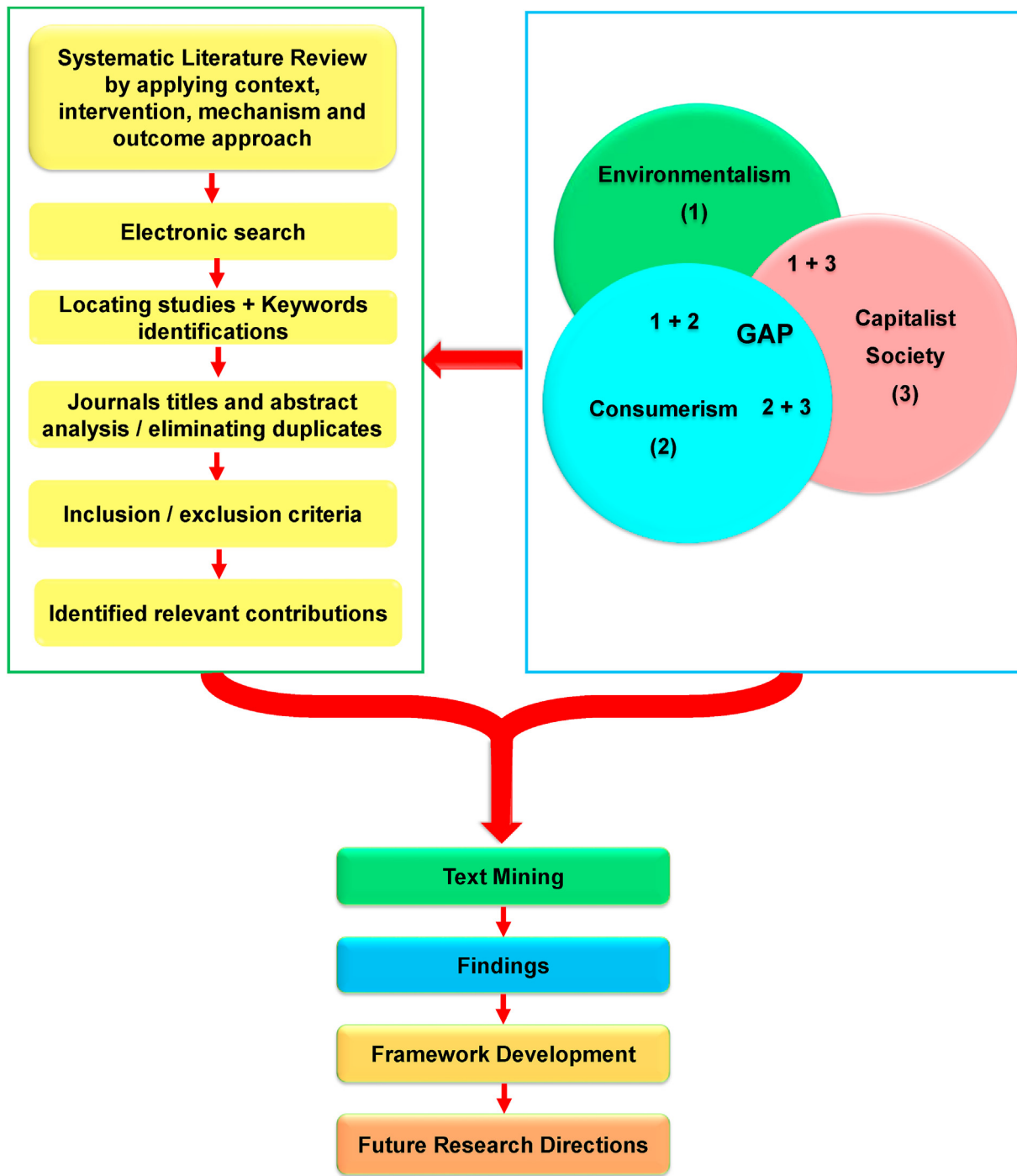


Fig. 1. Systematic literature review (SLR) process applied in this research.

strings using Boolean logic to enhance face validity, for example, “capitalism AND/OR consumerism”; “capitalism AND/OR environmentalism”; “environmentalism AND/OR consumerism AND/OR capitalism”; “market AND/OR circular AND/OR economy”. The strings were continuously refined, resulting in approximately 14 relevant search strings that used to search secondary data and select the most relevant papers overlapping the three research themes shown in Fig. 1.

The third phase was concerned with identifying the most relevant database for search purposes and the time span of publications to be included in the review (Makhashen et al., 2020). Three databases were used including Web of Science, Science Direct and Emerald Insight because these collectively index thousands of high quality, peer-reviewed

journals, provide complete bibliographic data, full-length author abstracts and cited references from the most influential research (Rafi-Ul-Shan et al., 2018). Ensuring comprehensiveness and high-quality search results can be easily organised and analysed. By restricting the search to peer-reviewed journals, the quality control of search results enhanced due to the rigorous process to which articles published in such journals are subject prior to publication (Denyer and Tranfield, 2009).

Newbert’s (2007) criteria were followed for source inclusion or exclusion (Table 1): first, papers published in peer-reviewed scientific journals in English and the Business Management discipline. Second, empirical papers published in the last 20 (2000–2019) years that contain

Table 1
Application of inclusion and exclusion criteria for research quality.

Stages	Exclusion criteria	Number of papers excluded	Remaining papers		
Initial screening (793 papers)	Exclusion of duplicates	157	636		
Title review stage	Non peer-reviewed papers	31	581		
	Conference papers	18			
Keywords and abstract screening	Non-English papers	06	277		
	Focus production, remanufacturing, reuse and sustainable/green design	47			
	Focus on consumer behaviour	56			
	Focus on sustainability communication/marketing	41			
	Focused on green/sustainability-related research on developed, developing and emerging economies	58			
	Focus on sustainable and reverse logistics theories, model and framework development and/or supply chain design	63			
	Focus on suppliers and/or supply chain partners	39			
	The full text review stage	Focus on green and/or production strategies and practices		61	87
		Focus on remanufacturing, recycling, reuse and modular production technologies		29	
		Focus on urban logistics/transport		27	
	Focus on clean energy	33			
	Focus on methodological and/or analytical tools	40			
Cross-checks	Lack of comprehensiveness: papers discussing and/or relevant to one or two elements of three research domain	19	68		

at least one keyword in their title or abstract. Third, excluding papers related to very narrow aspects or contexts. Finally, ensuring empirical relevance by reading all remaining abstracts and papers in their entirety. Fig. 2 shows the yearly number of publications related to environmentalism, consumerism and capitalist society with noticeably fewer sources identified for a combined discussion of all three concepts. Similarly, Table 2 highlights key papers in the research domain meeting specified

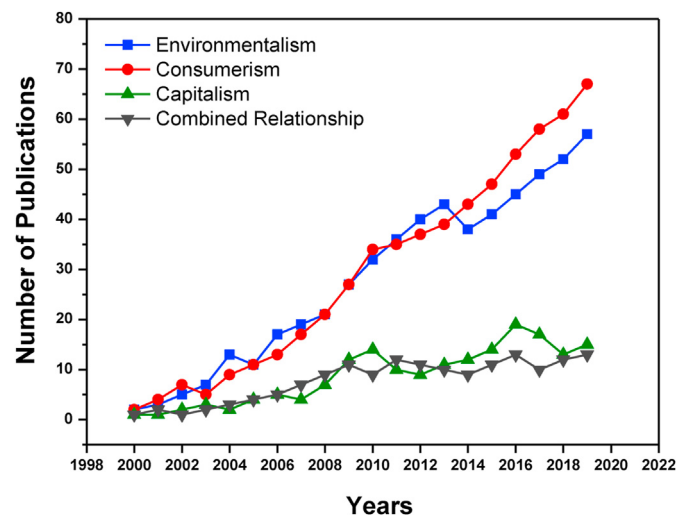


Fig. 2. Number of yearly publications in the research domain.

Table 2
Key papers in the research domains satisfying inclusion and exclusion criteria.

Title	Journal	Reference
Global patterns of ecologically unequal exchange: implications for sustainability in the 21st century	Ecological Economics	Dorninger et al. (2021)
Mitigating climate change via food consumption and food waste: A systematic map of behavioural interventions	Journal of Cleaner Production	Reisch et al. (2021)
The analysis of pro-environmental behaviour based on ecological worldviews, environmental training/knowledge and goal frames	Journal of Cleaner Production	Donmez-Turan and Kiliclar (2021)
Limits to liberalism: considerations for the Anthropocene	Ecological Economics	Creutzig (2020)
Green growth or degrowth? Assessing the normative justifications for environmental sustainability and economic growth through critical social theory	Journal of Cleaner Production	Sandberg et al. (2019)
Heal the world: A solution-focused systems therapy approach to environmental problems	Journal of Cleaner Production	Roth (2019)
Capitalism in sustainability transitions research: Time for a critical turn?	Environmental Innovation and Societal Transitions	Feola (2020)
Is the post-fossil era necessarily post-capitalistic? – The robustness and capabilities of green capitalism	Ecological Economics	Bosch and Schmidt (2019)
Decoupling global environmental pressures and economic growth: scenarios for energy use, material use and carbon emissions.	Journal of Cleaner Production	Schndl et al. (2016)
Exploring pro-environmental behaviours of consumers: An analysis of contextual factors, attitudes and behaviours.	Journal of Business research	Ertz et al. (2016)
Factors affecting the relationship between environmental concern and behaviours	Marketing Intelligence & Planning	Thieme et al. (2015)
Consumer Scapegoatism and limits to green consumerism	Journal of Cleaner Production	Akenji (2014)
Sustainability: aligning corporate governance, strategy and operations with the planet	Business Process Management Journal	Cartwright and Craig (2006)

inclusion and exclusion criteria.

2.1. Text mining

The finalised papers were imported into NVivo12 for cross-validation, to find key themes and ensuring papers cover the key subject areas. The shortlisted papers were coded and categorised in terms of definitions, operationalisation of the concepts, impacts and relationships between three concepts, use of theories, etc. The research team engaged in the process of compiling the database and a third expert validated the preliminary results of coding. Crosschecks and validation process eliminated subjective biasness and repeated continuously until a consensus reached between the experts. NVivo12 enabled us to use word clouds for further cross-validation and to visualise the content focus of our finalised papers. Fig. 3 and Table 3 show the most frequently used words, their frequencies and the word cloud:

Text mining ensured the validity and reliability of our selection process, including our finalised papers. Text mining in NVivo12 also enabled us to identify low values of relative frequencies, pointing as



Fig. 3. Cloud for the most frequently used words in the finalised papers.

important themes for future research. Our triangulated methodological approach (SLR and text mining) is a methodological innovation and a novel contribution in the research on environmentalism and consumerism in a capitalist society by eliminating subjective bias, cross-validation, and enhanced validity and reliability of secondary data analysis (Miles et al., 2014).

3. Observations

3.1. Capitalism- a market economy society

3.1.1. Conceptualisation

Capitalism is an economic system based on free markets, credit creation, private enterprise and ownership (Berend, 2015). The term ‘capitalist’ started to be used during the seventeenth century and is derived from capital meaning ‘fund of money’, it’s most fundamental dynamics being capital accumulation (Levy, 2017). However, the concept of capitalism as an economic system emerged during the mid-nineteenth century through Karl Marx’s social sciences to denote an ‘exploitative’ socioeconomic system (Berend, 2015). Key characteristics of capitalism include free markets, new technologies (e.g. petroleum and nuclear power), large-scale machine production, private property and enforceable contracts (Richardson, 2011). Bosch and Schmidt (2019) noted that a capitalist system was instrumental for fast developments, lifting people out of misery and positively impacting the quality of life. The rise of globalisation further fostered the expansion of capitalism, creating more global capitalist system (Ali, 2014) governing several

institutions and states.

Since the Second World War, capitalism has led to great prosperity, especially capitalist democracies that experienced an economic revival and a commercial boom (Brayshay, 2009) and in a similar way also (Sheppard, 2020). By providing unprecedented levels of personal freedom, higher standards of living, as well as infrastructures, health, security and social provisions, capitalism is considered as a substantial outcome to well-being (Butler, 2019). Also, the evolution of Western economies and societies since the 1900s provided unparalleled technological advancements and continuous innovation ever since (Andrews and Duff, 2020; Brayshay, 2009). Capitalist practices are governing all societal actors. For example, capitalist governments by economic growth, corporations by profit maximisation and privatisation, and people by personal investment (Smith, 2015).

The extant literature reports capitalism as a useful model that reduces poverty and increase income opportunities through economic growth (Aulenbacher et al., 2018), however, introduce individualism and high inequalities (Mathews, 2011). In general, the perception of capitalism highly depends on personal political convictions (Block, 2012). For left-wing defenders, capitalism usually represents a constraint on human possibilities and should be ended, whereas right-wing defenders defend its creation of wealth and growth (Block, 2012). Research agrees that since the 30 Glorious, capitalism started to show its limits due to lack of consideration for natural resources (Aydin, 2015), increasing poverty and inequalities and unfair power repartition (Gall, 2011). Similarly, events such as the financial crisis of 2008 have triggered people and organisations to start thinking and questioning the usefulness of capitalist society model (Shahrokhi, 2011).

3.1.2. Theories and models of capitalism

Empirical research reports various theories and models of capitalist society that are largely overlapping and based on economic objectives (Meelen et al., 2017). The research community made distinctions in existing capitalism theories and models based on welfare, financial systems, and corporate governance and employment relations across capitalist societies (Block, 2012). This review has found four main models of capitalism.

- (i) The *Anglo-Saxon model* based on low growth and high inequality
- (ii) The *Continental Europe model* based on low growth, low inequality and high employment
- (iii) The *East Asia model* based on high growth and low inequality
- (iv) The *Nordic Europe model* based on medium growth, low inequality and high employment (Lee and Shin, 2018). In essence, capitalist society has gone through an evolution from production to consumption (Dagevos and van Ophem, 2013).

Ali (2007) reported two kinds of capitalism, the *productivist* and the *consumerist* capitalism. The productivist capitalism favours money-making and helping others and attributed to the progress and prosperity in the US and Europe, by encouraging growth and serving nations’ welfare. Consumerist capitalism is newer, where profits happen only when nations’ basic needs have already met, and they have the means to satisfy their emerging needs (Ali, 2007). In comparison to the productivist capitalism, consumerist capitalism espouses ethos that is overlooked

Table 3
Most commonly used words and their frequencies in the finalised papers.

Word	Percentage (%)	Word	Percentage (%)	Word	Percentage (%)
Environmental	1.50	Sustainability	0.86	Resources	0.40
Consumer	1.47	Society	0.78	Markets	0.37
Capitalism	1.40	Green	0.71	Social	0.34
Pollution	1.35	Natural	0.68	Global	0.30
Consumption	1.28	Marketing	0.62	Eco	0.27
Economy	1.19	Production	0.50	Planet	0.24
Industrialisation	1.00	Growth	0.46	Impact	0.20

by other models or form of capitalism (Ali, 2007). In response to global warming and growing environmental concerns, *green capitalism* has arisen as a new theory (Rajkopal, 2014). Green capitalism mainly aims to reconsider the natural capital by questioning the radical mispricing of natural resources and ecological systems (Rajkopal, 2014). Green capitalism theorists are questioning an unrestricted industrial growth and technological developments and suggesting integration of environmental considerations into development practices. In operation, green capitalism demands various efforts from corporations, governments and the public for green production and consumption (Rafi-Ul-Shan et al., 2018).

Schweickart (2010) mentioned that basic capitalism encompasses four kinds of capital: human, financial, manufactured and natural capital (Schweickart, 2010). Capitalism has to include nature in its fundamentals to consider environmental health. This has been recently strongly highlighted with the arrival of COVID-19 pandemic, which has been heavily influencing the spheres of the economy and market, specifically influencing the energy market, as shown in Fig. 4 (Klemeš et al., 2020a), waste market with supply chains (Fan et al., 2020), with a huge influence on the plastic market (Klemeš et al., 2021) and environmental footprints (Yang et al., 2020). However, the huge potential benefit of a post-pandemic period can be an initiation of the “Positive Destruction” innovation step (Fig. 4) (Klemeš et al., 2020b).

By contrast, promoting capitalism involves growth and accumulation, treating both the natural environment and workforce as mere inputs (Wallis, 2010). Proponents of green capitalism hold that it can develop a high rate of innovation and reinvent the relationship between humans and nature (Bosch and Schmidt, 2019). It could also allow capitalist firms to be less destructive towards nature (Mathews, 2011). Sandberg et al. (2019) argued that environmental preservation is impossible to be successful while keeping economic growth behaviour. If environmental preservation demands to endanger economic growth, economic growth will end up being prioritised over green production and consumption (Sandberg et al., 2019).

3.1.3. Globalisation and (Neo) liberalism

Most foreign trade today is dominated by MNCs with a huge expansion of international and globalised capital and money flow via transnational bank loans and stock (Dahaj and Cozzarin, 2019). Globalisation

integrates delocalisation practices by transferring a large number of labour-intensive production chains and procedures to developing countries or regions of low wages (Chemmanur et al., 2016). The core value of neoliberalism is a competition from the perspective of the capitalist pole means no government-imposed restrictions (Golob et al., 2009). The neoliberalism affects, for instance, non-financial organisations that are ever dependent on the financial sector than before (Morgan and Murray, 2015).

This fact illustrated the competitive pressure neoliberalism created, which deeply weakened non-financial institutions, destinate to human, environment, justice rights and labour-friendly policies (Kus, 2012). Developed and nation-centric countries have encouraged the trans-nationalisation of production and cross-border transactions of money. Since the 1980s, MNCs became the dominant form of capitalist company, in almost every economic sectors and regions of the world (Radice, 2014). In this context, Transnational Capitalist Class (TCC) emerged that integrates those capitalists that own and run multinationals and financial institutions, managing billions of people and huge money flows and affecting legislation and regulatory structures (Harris, 2015). The TCC considered as hegemonically fractioning capital and determining the standard of living of billions of people.

3.1.4. Future of the capitalism model

Criticism for capitalism has existed for a long time, the 2008 financial crisis and ongoing environmental catastrophes had threatened the market economy system and affected the well-being of humanity at the point that the number of researchers that question the capitalist model has soared (Creutzig, 2020). Societal and environmental issues are challenging some of our most deeply held beliefs about how a fair and well-functioning society should be organised (Radice, 2014). Mazzucato (2020) argued that current crises that capitalism is facing (e.g. ongoing pandemic including health crises, economic and climate crises) are due to austerity measures that governments took over the decades, lack of inclusive and sustainable economy policies and inefficient public-private partnerships. Although, researchers have questioned capitalism as a society model, the proclamation of the close-end of capitalism is unfounded (Wolnicki, 2010).

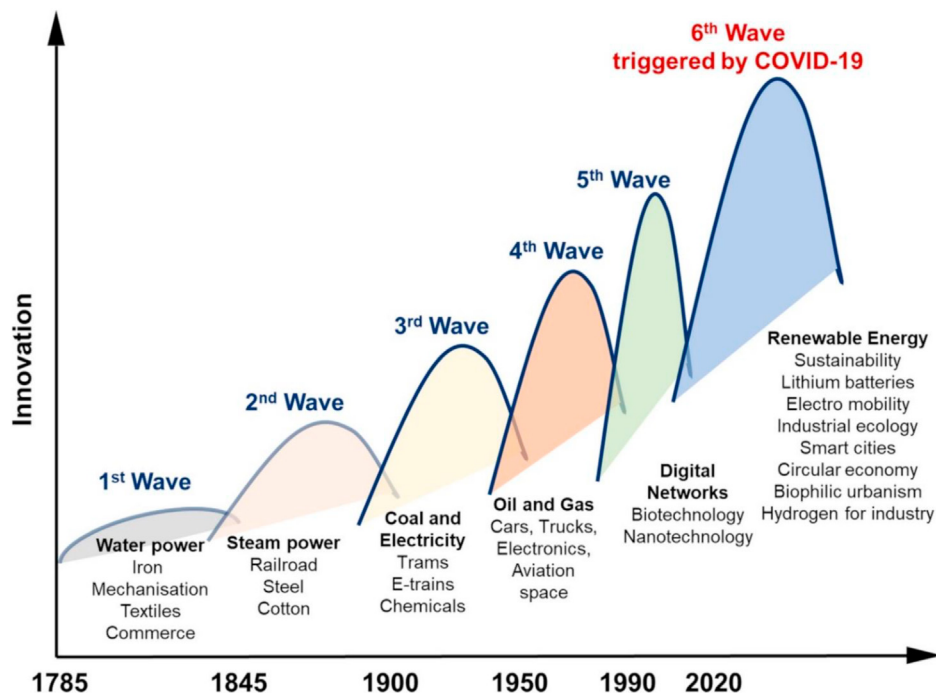


Fig. 4. Waves of innovation through industrial history and into the future - adapted from Newman (2020) by Klemeš et al. (2020b).

3.2. Consumerism

3.2.1. Conceptualisation

Consumerism emerged as a natural outcome of mass marketing, production and industrialisation (Ali and Wisniesk, 2010) and defined as cultural attitudes ensuring that rising incomes are used to purchase ever-growing outputs. Consumerism incorporates omnipresence of advertising and based on the overarching idea that people have to have more resources to be happier, better and more successful. Traditionally, research on consumerism largely associated with the spread of capitalism treating it as an American invention (Ali and Wisniesk, 2010). As modern capitalism, mass consumerism arose during the industrial revolution, when resources were highly abundant and technologies highly productive (Cowan et al., 2009). However, depletion of natural resources, increased pollution and global warming raised alarms and increased consumer awareness about these issues (Caruana et al., 2016). Consequently, consumers started demonstrating ethical behaviours in their demands from businesses to integrate environmental considerations, and regard for natural resources and human welfare into their operations (Reisch et al., 2021).

3.2.2. Green consumerism theory

Green consumerism refers to the production, promotion and the consumption of goods and services based on a pro-environmental behaviour (Akenji, 2014) promoting consumption that does not damage nature and cause pollution or acting with social and environmental responsibility through consumption (Paço et al., 2019). Green consumerism can be facilitated through legal, administrative, cultural and commercial factors (Akenji, 2014). From a legal perspective, it aims to design policies and regulatory measures that challenge unsustainable behaviours. Administratively, it aims to design and introduce processes that encourage or discourage certain actions, for example, promoting local sourcing and production instead of imports. Culturally, it aims to determine behaviours, norms and ethics through community actions. Commercially, it aims to facilitate environment-friendly practices of buying and selling within and beyond communities (Akenji, 2014).

Consumerism has significantly increased standards of living, in particular life comfort. At the social level, consumerism allowed people access to new ranges of products (i.e. car ownership, house purchase, international travel) and in general, the purchase of an endless array of consumer goods and (Brayshay, 2009; Butler, 2019). At the economic level, mass production and consumerism followed the burgeoning of capitalism (Brayshay, 2009). The infinite creation of goods and services allowed continuous economic growth and market competition for both countries and businesses (Singh et al., 2019). Yet, the environmental concerns and positive attitudes for green products do not ensure the growth of environment-friendly behaviour and thus the green consumption (Göçer and Oflaç, 2017). Paço et al. (2019) hold that green movement has little impact or at least did not succeed as the green theorists might have expected.

3.2.3. Theory of consumption values and anti-consumption

The Theory of Consumption Values (TCV) aims to explore why consumers choose to buy or avoid certain products and why they prioritise one product over the other (Gonçalves et al., 2016). The TCV involves five consumption values that may influence the consumer's final purchase decision (Lin and Huang, 2012): *functional value* refers to the utility and performance perception, for example, durability, reliability and price. *Social value* refers to the utility perception toward one or more social groups or social class. *Emotional value* refers to the feelings and affective perception such as green consumer behaviour. *Conditional value* refers to a resulting situation or a set of circumstances such as organic food during pregnancy. Finally, *epistemic value* refers to the desire for knowledge and novelty.

Gonçalves et al. (2016) argued that the green consumer's behaviour is highly influenced by epistemic value. With the growing concerns for

nature and environmental preservation, consumers can choose to avoid products that are incompatible with their environmental ideology (Golob and Kronegger, 2019). Consumer reactions against consumption reflected by several active and visible actions, for example, brand avoidance, boycotting and consumer rebellion (Lee et al., 2009). Numerous researchers tried to define and conceptualise the anti-consumption notion and agreed on the relation between anti-consumption and resistance in activity and attitude. Through these counter-cultural attitudes and behaviours, consumers are challenging the capitalist system and opposing oppressive consumerist forces (Garcia-Bardidia et al., 2011). Lee et al. (2009) argued that anti-consumption is not an economic threat; instead, it should be seen as opportunities to be aware of societal processes and practices. Therefore, research should focus more on consumption issues instead of anti-consumption, especially regarding reasons against consumption (Lim, 2017).

3.2.4. Consumer behaviour and ethical consumers

Consumer behaviour, defined as feelings people experience and actions they perform during the consumption process (Madichie, 2009). Research on consumer behaviour allows an understanding of how people are consuming and sensitive to today's consumerism (Ribeiro et al., 2019). It includes advertisements, price information and product appearance and cultural and/or social affiliation (Madichie, 2009). Personal characteristics of consumers such as age, income and lifestyle are highly related to their tastes and spending patterns (Ribeiro et al., 2019). As a result, personal characteristics and social appeal have to also be integrated to promote green consumer behaviour (Kumar and Ghodeswar, 2015).

Ethical consumers are those who avoid products that may endanger health, cause damage to nature through a disproportionate need for energy, creation of unnecessary waste and the use of materials derived from threatened species or environments (Lee, 2008). Sustainable consumption is not an all-or-nothing phenomenon. It includes a large range of distinct behaviours and consumption types (Akehurst et al., 2012). Indeed, a gap exists between consumer attitude and behaviour towards green and/or ethical consumption. Today's consumers are concerned about environmental issues but not necessarily will they translate such concerns into their purchase habits and/or decisions (Rafi-Ul-Shan et al., 2018). This complex gap becomes a barrier for marketers and green consumption (Lim, 2017).

Understanding consumer behaviour is the core activity of marketing studies (Lim, 2017) and more recently (Ribeiro et al., 2019). Each personality is inclined to consume specific products and stimulated by targeted advertising (Ribeiro et al., 2019). Marketing initiatives that highlight the benefits and value of pro-environmental consumption are expected to pay off through the influence of consumers' choice for green products and a willingness to pay more (Donmez-Turan and Kiliçlar, 2021). To convince non-environmentally conscious consumers, marketers should introduce interventions such as relating eco-friendly products with functional, emotional and experiential needs of consumers (Kumar and Ghodeswar, 2015). Businesses are required to identify these several types of sustainability-conscious consumers to design and implement targeting strategies and interventions for sustainable consumption considering non-homogeneity of today's consumers and their consumption patterns (Castro-González et al., 2019).

3.3. Environmentalism

3.3.1. Environmental issues

Global warming is a result of increased anthropogenic greenhouse gas emissions that caused endangering the stability of the entire earth system and expected to have severe and irreversible consequences for humans (Wang et al., 2017). The extant literature has highlighted a broad range of environmental issues. For example, destruction of natural habitats, lack of maintenance-management of wild foods, loss of wild species and population diversity, erosion of soil, excessive use of fossil fuels for

energy production and depletion of underground aquifers (Reisch et al., 2021). Similarly, loss of photosynthesis areas, wastewater, and release of toxic liquids, carbon dioxide and methane diffusion into the atmosphere and the growing population and its growth-rhythm (Donmez-Turan and Kiliclar, 2021).

The extant empirical research also highlighted four key drivers of unsustainable practices in capitalist societies (Hirschnitz-Garbers et al., 2016). First, socioeconomic drivers based on the availability of financial and human resources, resource prices, economic growth and international trade (Dorninger et al., 2021). Second, technological and/or infrastructure drivers refer to innovations and infrastructure that do not integrate the environment, such as building design using electricity from fossil fuels. Third, policy and/or regulatory drivers refer to policies and political priorities that contribute to unsustainability (e.g. subsidisation of groundwater drilling). Fourth, behavioural and/or informational drivers refer to culture, behaviour patterns, information and knowledge availability (Hirschnitz-Garbers et al., 2016). Empirical research also categorised these drivers, policies and strategies as interventions necessary to translate consumer behaviour for sustainable consumption and mitigating climate change risks (Reisch et al., 2021).

3.3.2. Sustainability integration into production and operations

Sustainability concerns keeping a fair balance between environmental, social and economic performance of business operations (Carter and Rogers, 2008). The sustainability concept is also known as Triple-Bottom-Line (people, planet and profit) and demands businesses for equal consideration of people (social) and planet (environment) instead of profit (economic) or the bottom line alone (Rafi-Ul-Shan et al., 2018). Although, environment is a more engaged term, however, businesses should not only take into account the environment in the business model but also fight for it (Svensson and Wagner, 2012). The circular economy concept offers a new possibility for businesses and governments (Korhonen et al., 2018). The concept aims to change the paradigm of the so-called linear economy, by limiting the waste of resources and the environmental impact (Korhonen et al., 2018).

The circular economy model proposes to reconcile environmental preservation and economic growth. Despite the whole economy is still mainly linear, a transition to a circular model begun (Silva et al., 2019). The main goal of circular economy is to avoid and maintain product and resource consumption through multiple material loops (Coderoni and Perito, 2020). Circular economy implementation in business models can benefit by high product durability, take-back schemes, access over ownership (i.e. leasing or sharing), minimising waste generation, emissions, energy loops, using recycled materials, maximised product life through maintenance (Vargas-Sánchez, 2019). Global warming and resource depletion motivated the circular economy model implementation in both business and governance model (Silva et al., 2019). However, the circular economy implementation is slow due to technical and economic barriers. Indeed, profound shifts in production, distribution and consumption are costly for businesses and sometimes even unfeasible, for example, complexity of new durable materials, impossibility to reuse/recycle certain types of waste, no ecological infrastructures, restructuring of business relations. Either way, the circular economy model becomes area of researchers' interest and slowly starts to take place within businesses and governance models (Scarpellini et al., 2020).

Resource deficiency and unwillingness to integrate sustainable initiatives in the core business operations led organisations to misleading behaviour known as greenwashing (Rafi-Ul-Shan et al., 2018). This term characterised corporate deceit by misleading consumers regarding their environmental practices or a product's environmental benefits (Parguel et al., 2011). Through these fallacious advertisements, organisations aim to gain more market share while having strong consequences such as consumers' scepticism and mistrust for the brand but yet greenwashing is largely used as a marketing strategy (Braga Junior et al., 2019). Thus, an environment-friendly business model demands a multitude of changes in several domains. For example, using renewable and recycled materials

and energy, transport optimisation and local storage, waste minimisation and recycling, eco-friendly production processes, green packaging, eco-friendly enterprise culture, training programs for employees and applying the same model to suppliers, wholesalers, retailers, customers and end-users (Ferro et al., 2019; Mahsud et al., 2018).

Similarly, corporations also use Corporate Social Responsibility (CSR) to demonstrate the integration of ethics and sustainability into business operations (Nwoke, 2017). However, the extant literature divided on the use of CSR, for example, arguing its use for window dressing whereas others argue that it has a crucial societal and environmental importance (Turner et al., 2019). Environment-oriented CSR usually adopted by environmentally sensitive industries that are more prone to environmental and social risks and closely watched by social and environmental organisations (Rafi-Ul-Shan et al., 2018). In terms of efficiency, CSR is much easier to implement in small and medium-sized enterprises due to lack of bureaucracy and structural flexibility but might be constrained by resources (Little, 2012). With neoliberalism, a system where corporations have large freedom, the CSR and sustainability initiatives depend on voluntary actions (Nwoke, 2017).

3.3.3. Environmental decision-making

Empirical research reported numerous sustainability initiatives, sustainability management strategies, interventions and frameworks for sustainable business operations; however, lack of global sustainability standards, indicators and regulations makes sustainability integration especially challenging in global business networks (Rafi-Ul-Shan et al., 2018). New frameworks have to be developed to integrate sustainability into decision and policymaking and to analyse whether business activities are compatible with environmental objectives (Chandrakumar and McLaren, 2018). The implementation of existing systems cannot guarantee sustainability but only offer guiding principles. Consequently, many organisations and industries have developed their own codes of conduct, indicators and practices for sustainability. Despite some criticism over their effectiveness and adoption rates, Environmental Management Systems (EMS) and International Standards Organization guidelines are suggested for the integration of sustainability into business operations (Wolff et al., 2017). To assess a company environmental performance, the EMS compares its environmental footprint with its assigned share of carrying capacity. If its footprint exceeds its budget, then the environmental impact of the company is qualified as unsustainable (Wolff et al., 2017).

3.3.4. Role of people, governments and organisations

Sadly, the threats of global warming appear unreal and unmet for most people because the dangers of environmental issues are not tangible, immediate and clearly visible in people's day-to-day life (Sadler-Smith, 2014). Nevertheless, people have access to unlimited information resources with the internet to gain knowledge about environmental issues (Qin and Peng, 2016). The extant literature reported people's behaviour as decided for their lack of environmental considerations and attributed this as ignorance (Geiger and Swim, 2016). Ignorance of environmental issues includes various factors. For example, people who don't believe in global warming, people who don't care about it, people for whom this reality is too hard to accept and people who think it is already too late (Lind et al., 2019). Empirical research believes that organisations, governments and countries also contribute towards this ignorance by not making appropriate interventions in people's held beliefs about environmental issues (Guttry et al., 2019).

Currently, the world's economies are aware of environmental issues that ask for economic and social changes to a low-carbon economy transition (Geiger and Swim, 2016). However, governments have not shown strong commitment in endorsing environment interests against those of business. Instead, they have a tendency to avoid offending the sensitivity of powerful interest groups (Atkinson, 2014). Then, there is evidence and a consensus that climate change and global warming have to be a high priority for policymakers and should be considered as a

context of emergency management and introduce useful interventions (Reisch et al., 2021). Taking into account of actual social and economic implications of climate changes, the continuous global economic growth is and will continue to increase the environmental pollution (Cadez and Guilding, 2017). At a global level, no public administration body exists that has the capacity to direct or encourage MNCs for sustainable development in their production and use of resources (Atkinson, 2014). This issue propels the environmental management at global level, where knowledge have to be shared between governments and organisations, in ways that promote more effective and legitimate global governance practice and robust interventions and to mitigate climate change (Reisch et al., 2021).

4. Discussion and framework development

The main purpose of this research was to explore the relationship between environmentalism and consumerism in a capitalist society. Five main themes emerged from the analysis of our results. First, this study found that capitalism and consumerism are interconnected and interdependent. Capitalism requires a continuous growth of creation and production in order to be stable (Taylor, 2014). The production itself is dependent on consumption (Schweickart, 2010). For example, consumption creates the demand for production; without enough consumption, the entire production cycle would be immobilised (Taylor, 2014). Consumerism or consumption is at the heart of a flourishing production cycle. While capitalism continues to stimulate huge productivity rates, it skews productivity towards more consumption ensuring production processes are never hindered (Schweickart, 2010). Thus consumerism could be considered a mere cultural phenomenon but as the core fundamentals and principles rooted in capitalism as an economic system.

Increased consumption leads to increased production, and with higher production, there will be higher sales, and therefore higher profits will be generated (Taylor, 2014). Capitalism itself has a strong influence on consumer consumption. Capitalist marketplaces are governed by competition, and to remain competitive, businesses work hard to create new wants (Smith, 2015). The inequality of salaries and emerging and/or new wants drives people to work more, to continuously increase their purchasing power (Lorenz, 2017). Consequently, promoting the ideology of having 'enough' to the consumer; and thus finally creating or promoting the love of money for its own good (Taylor, 2014). Second, capitalism and environmentalism are two opposing forces. The way in which the market economy banking system creates money causes a debt imperative, which results in a growth imperative (Mathews, 2011).

That leads to a destructive competition for the available supply of money, which is never enough to allow all debtors to pay what they owe (Malik, 2018). Additional funds are only available when banks provide additional loans (Aydin, 2015). Debt is continually increasing, forcing businesses and individuals to compete for markets and scarce money to avoid a debt default (Wolnicki, 2010). In this environment, people, governments and businesses cannot make 'concessions' for things they may consider futile to them (Feola, 2020); apart from committed actors who are willing to sacrifice things for the planet (Smith, 2015). Companies and governments should have a long-term view and management of the dangers associated with unsustainable practices to integrate them into their processes and actions (Sandberg et al., 2019). Business executives and political leaders usually adopt both short-term and profit-motivated decisions (Feola, 2020). On the other hand, environmental considerations and sustainable development require precautionary measures that are usually not rewarded by the capitalist system (Park, 2015; Sandberg et al., 2019).

Third, companies can be environment friendly in a capitalist society; however, this depends on the nature of product, service and cost imperatives. The results of this study suggest that being environmentally friendly while keeping consumerism seems paradox (Farias and Farias, 2010) and previously (Lee et al., 2009). Consumerism induces mass

production, which is itself incompatible with the environment (Akenji, 2014). It can be considered that it largely depends on the product or service type that companies produce (Chander and Muthukrishnan, 2015). For example, a major fast-fashion corporation produces massively and have deplorable environmental impacts (Rafi-Ul-Shan et al., 2018). In contrast, a locally-based company that use eco-friendly production methods to create eco-friendly products may have less pollution (Kianpour et al., 2014). It can also be considered that green consumerism is not completely impossible, in the case that the consumption remains proportional to the environment (Kianpour et al., 2014). For eco-friendly companies that renounce to consumerism, it seems possible to survive thanks to consumers that consume green products, have high purchasing power and willingness to pay extra (Donmez-Turan and Kiliclar, 2021). Adopting eco-friendly production methods are costly for businesses and involve a high final product price (Hirschnitz-Garbers et al., 2016). Thus, eco-friendly companies will never be a majority as long as purchasing power inequalities remain (Park and Ha, 2012) and thus are quite limited in their growth (Ertz et al., 2016).

Fourth, the role of social and cultural issues in the context of a capitalist society and consumerism. Capitalism as a social system has exerted large and significant influences on the way social relationships are organised and experienced (Butler, 2019). The culture of capitalism can be conceptualised as a high order social contextual factor that influences lower-order factors such as the individual and family (i.e. cultural beliefs, values, traditions and practices) (Russo, 2020). Consumerism followed this path and has been amplified by globalisation. Contemporary consumerism is characterised by a growth of individual pursuits, with a more homogenised global consumerism, that helped deleted local, tribal or religious values and culture (Cleveland and Bartsch, 2019). Both capitalism and consumerism established a strong relationship between physical objects and social relations (Leslie, 2020). Current norms of consumerism, especially in capitalist societies are mainly driven by technological innovations combined with fashion-oriented socio-cultural values (Singh et al., 2019). From both cultural and social perspective, consumerism led to superficial and materialistic lives norms, where people's material possessions reflect individual histories and identities (Ribeiro et al., 2019).

Finally, analysis of findings indicates diverse opinions regarding the idea of 'green capitalism'. Green capitalism aims to create a natural capital while keeping its fundamentals, and a good can be owned, whereas a service cannot (Wallis, 2010). There is 'green' capital since there are 'green' markets and opportunities to value capital (Bosch and Schmidt, 2019). If the term green capitalism has a sense, it is to assume that the system breaks with growth to self-restrict its development (Wallis, 2010) and use natural resources with more caution (Bosch and Schmidt, 2019). However, how can this happen when the capitalism fundamental operates on the sole basis of the profit race (Sandberg et al., 2019), which is expressed in the choice of GDP as an indicator for instance. This indicator is incapable of anticipating the qualitative disturbances induced to the ecosystem's functioning (Schandl et al., 2016). Based on the discussion in this section and findings, the following Table 4 provides main gaps and the future research directions to further explore whether it is possible to keep a balance between environmentalism and consumerism in a capitalist society.

Operations Management Input-Transformation-Output (ITO) model (Slack and Brandon-Jones, 2018) was built to argue that capitalist society enjoys unprecedented individual comfort, convenience and choice (Lim, 2017). It is a highly complex and difficult task to transform capitalist society into environmental conscious (Park and Ha, 2012). A progressive, incremental and iterative approach (Kianpour et al., 2014) is essential to transform it into an environmentally conscious society for balanced environmentalism and consumerism (Fig. 5). The framework suggests that multiple stakeholders and environmental concerns needs to be taken into consideration as inputs (Rafi-Ul-Shan et al., 2018). The transformation process needs to provide environmental education, training and awareness, including increased collaboration between multiple

Table 4
Research agenda for future research on environmentalism and consumerism in a capitalist society.

Extant literature themes	Current research gaps	Future research questions
Capitalism and consumerism are interconnected and interdependent: Yani-de-Soriano and Slater (2009) Schweickart (2010) Cui et al. (2012) Taylor (2014) Smith and Association (2016) Lorenz (2017)	Literature has shown that capitalism and consumerism are interconnected and interdependent, but the integration of environmentalism is unknown.	How can consumerism integrate or balance environmental considerations in a capitalist society?
Role of MNCs between environmentalism and consumerism in capitalist society: Cartwright and Craig (2006) Fehre and Weber (2016) Chen et al. (2018) Rafi-UI-Shan et al. (2018) Nwoke (2017) Ferro et al. (2019) Mahsud et al. (2018) Turner et al. (2019) Wang et al. (2019)	Empirical research argued that due to resources and capabilities, MNCs can take the lead to introduce green products and services, however, the role of MNCs in this context and in a capitalist society is yet unknown. Further, it is also unknown what could drive or impede MNCs in a capitalist society to keep a balance between environmentalism and consumerism.	How can MNCs be green and yet profitable in a capitalist society? What drives or impede MNCs to keep a balance between environmentalism and consumerism in a capitalist society? Why might MNCs not be able to keep a balance between environmentalism and consumerism in a capitalist society?
Difference between consumer attitude behaviour: Ali and Wisniesk (2010) Akehurst et al. (2012) Kumar and Ghodeswar (2015) Thieme et al. (2015) Göçer and Sevil Oflaç (2017) Hüttel et al. (2018) Castro-González et al. (2019) Paço et al. (2019)	Empirical research has shown that consumer does not like products and services that cause environmental degradation, but their own purchase decisions do not reflect this attitude.	How can consumer attitude and behaviour gap be minimised in a capitalist society? How would this impact consumerism?
Role of governments and non-government organisations: Schneider (2011) Atkinson (2014) Abdelzaher and Newburry (2016) Geiger and Swim (2016) Schandl et al. (2016) Cadez and Guilding (2017) Crnčević and Lovren (2018) Wu et al. (2019)	The extant literature reported that governments and non-government organisations (NGOs, unions, media, etc.) could play a vital role in promoting environmentalism, but their role in a capitalist society and in the context of consumerism is unknown.	How can government and non-government organisations promote environmentalism in a capitalist society without impacting consumerism?
Knowledge domain for environmentalism and consumerism in capitalist society: Wallis (2010) Block (2012) Lin and Huang (2012) Akenji (2014) Chander and Muthukrishnan (2015) Gonçalves et al. (2016) Lim (2017) Meelen et al. (2017) Bosch and Schmidt (2019) Geerken et al. (2019)	The extant empirical research has used various theories and concepts to integrate environmental initiatives from consumerism perspective and lately in the context of capitalism (green capitalism). Similarly, green consumerism, sustainable consumption, circular economy, closed-loop systems, etc., are well cited in the literature. Yet these theories and models lack operationalisation in	What could be an appropriate theory, model or framework to operationalise environmentalism in the context of consumerism and in a capitalist society?

Table 4 (continued)

Extant literature themes	Current research gaps	Future research questions
The discussion of social and cultural issues in the context of capitalist society and consumerism: Butler (2019) Russo (2020) Cleveland and Bartsch (2019) Leslie (2020) Singh et al. (2019) Ribeiro et al. (2019)	the context of a capitalist society and consumerism. The extant research has explored various aspects of social and cultural values in the context of capitalist society and consumerism. However, a combined discussion of social and cultural aspects in the context of capitalist society, consumerism and their implications for the environmentalism need further empirical investigation.	What role can be played by social and cultural values in the context of capitalist society to balance between consumerism and environmentalism? What social and cultural values can be helpful in balancing environmentalism and consumerism in a capitalist society?

stakeholders and transnational cooperation (Donmez-Turan and Kiliçlar, 2021). Subsequently, desired outputs will be an environmentally conscious capitalist society with better environmental education, knowledge and awareness, including the availability of environment-friendly products and services (Ertz et al., 2016).

However, in the case of undesired output, natural resource consumption with least environmental considerations, the proposed framework demands important interventions (Reisch et al., 2021). Reisch et al. (2021)SLR introduced numerous types of behavioural interventions to mitigate climate change via food consumption and food waste. The impact of interventions should be observed, transforming mechanisms and outputs (Slack and Brandon-Jones, 2018). However, if the desired output is not achieved, environmentally conscious capitalist society, then the proposed framework suggests exploring and including a more comprehensive set of inputs be those individuals, opinion makers, policymakers, the general public, MNCs, technological organisations, educational establishments (Donmez-Turan and Kiliçlar, 2021) or critical voices and concerns those might have been overlooked at the initial phase, thus, necessitating to run and monitor transformational process iteratively.

5. Conclusions

Recent high frequency and magnitude natural catastrophes and decreased resilience of our security and protection mechanisms show that our social and economic systems are critically vulnerable from environmental risks caused by lifestyle, production and consumption patterns and increased demand for natural resources. Empirical research reported that efforts to restore the environmental health of planet earth proving to be ineffective and are already too late. According to the World Health Organisation (2018), the temperature on the earth's surface is expected to increase by 1.4–5.8 °C by 2100, which would be the largest rise of any century-long trend in the last 10,000 years. Climatic changes and global warming already cause over 150,000 deaths every year and are expected to double by 2030 (Fadda, 2020).

Emerging infectious diseases (such as Ebola, MERS and SRAS) directly correlate to climate changes (Di Marco et al., 2020). A recent European study reported that 78% of the COVID-19 deaths across 66 regions in Italy, Spain, France and Germany occurred in the five most polluted regions (Ogen, 2020). The current COVID-19 pandemic deeply shows the capitalist system's weaknesses in a period of large crisis, for example, health management, large social repercussions and huge economic crisis caused by the significant decline of consumption (Nelson, 2020). According to Oxfam International (2020) and the World Meteorological Organisation (2019), the number of climate-related disasters has been multiplying by 3 in the last 30 years, the rate of global sea-level rise has been 2.5 times faster than all of the 20th century, and 20 million people every year forced to move from their homes because of climate

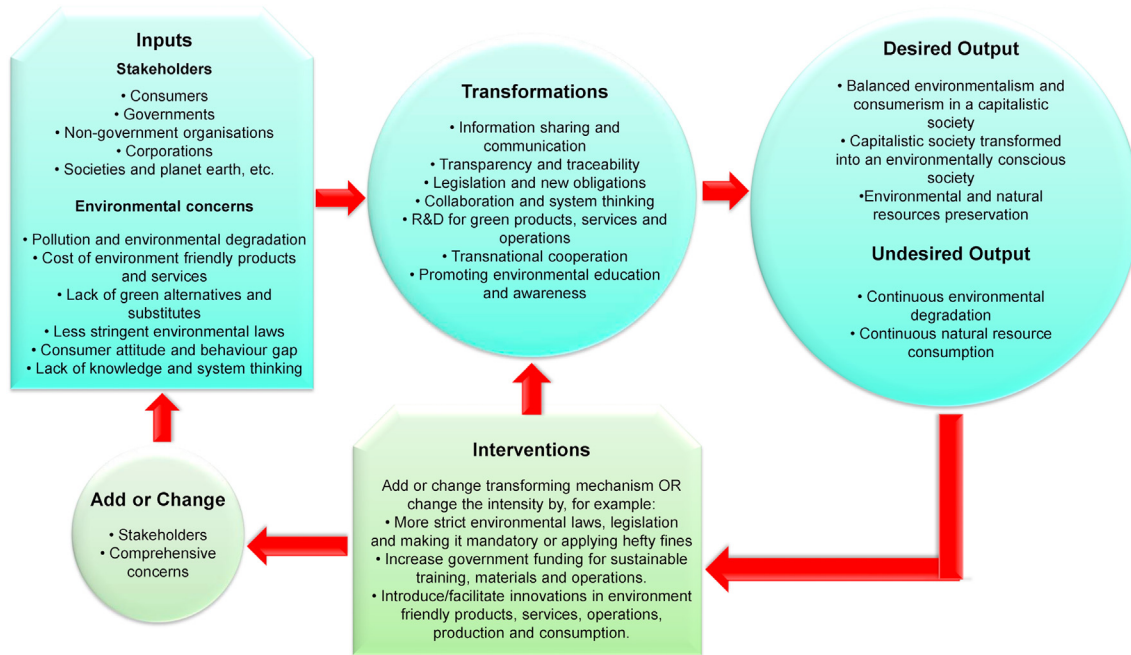


Fig. 5. Input-Transformation-Output research framework for environmental conscious capitalist society.

change.

An environment-friendly business model demands a multitude of changes in several domains and the engagement of multiple stakeholders. For example, using renewable and recycled, remanufactured and reused materials, transport optimisation and local storage, wastes minimisation and recycling, eco-friendly production processes, green packaging, eco-friendly enterprise culture, training programs for employees and applying the same model to suppliers, wholesalers, retailers, customers and end-users. These strategies or sustainability interventions require a substantial investment of effort and resources that the key stakeholders of sustainability agenda are finding difficult to invest due to existing ways of life, making environmental policies more complicated and ineffective. Considering the paradoxical nature of environmentalism and consumerism and the contextual nature of this research. The capitalist society an evidence-based research enabled us to synthesise fragmented extant empirical research to find out known and unknown in the research domain.

The main contributions of this research are three-fold. First, a triangulated approach was adopted to SLR by combining it with text mining for cross-validation and limiting subjective bias. To date and best to our knowledge, this is the first methodological novelty in the research on environmentalism and consumerism in a capitalist society. Second, this research proposed a framework explicitly exhibiting how to progressively transform capitalist society into a more environmentally conscious one. Most importantly, the authors added into the existing environmental sustainability and consumerism literature by introducing Operations Management ITO model. Empirical research has categorised transformational mechanisms as interventions. However, our novelty and contribution is the ITO model that neatly distinguishes various kinds of transformational environmental initiatives as inputs from transformational mechanisms and interventions. The novelty of the ITO model also lies in highlighting time and place for the introduction of interventions, including the importance and need for iteration of the transformational process. The proposed ITO model's applicability, reliability and validity including elements of inputs, transformational mechanisms, and types of interventions needs to be explored and test by the future researchers. Third, six future research directions were put forward to advance knowledge in the research domain by exploring transformational mechanisms and interventions in a capitalist society for

balanced environmentalism and consumerism.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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