

Inclusive value chain in extractive reserves: bibliometric review

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Abstract

Given the interests involved in research around organizations regarding their organizational strategies versus their value chain, realizing that we can use concepts and models as a relevant area of investigation in the field of inclusive, shared value chain. This study aimed to investigate studies on inclusive shared value chain, at a global level, through a survey of publications indexed to the database available on the Journal Portal of the Coordination for the Improvement of Higher Education Personnel and in the databases, Scopus, Scielo and Web of Science. The choice of such bases was made in view of their recognition by the academic community. The research has an exploratory nature regarding its objectives, and bibliographical regarding the procedures used. Bibliometric criteria for the preparation of an inventory of scientific productions was adopted as a strategy for collecting data. The results showed that: the research did not reach the established objective, which was to describe how research on the Inclusive Value Chain has been applied in extractive reserves, this due to the lack of research on the Inclusive Value Chain in extractive reserves, which is a limiting factor for researchers in forest environments. It is concluded that the absence of studies on Value Chains, Inclusive Value Chain and Inclusive Businesses with ecological, social and Economic dimensions finds limits in political-geographic issues, which inhibits the diversity of spatial perceptions on the subject, reflecting on the maturation of research in relation to theory.

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1. INTRODUCTION

Forests are the foundation of sustainable development and support more than 1.6 billion people. They are of great economic importance, as a means of survival for 200 million people, including indigenous and riverine peoples, being relevant from a landscape, ecological, environmental and social perspective (DEGATO; CARLOS, 2017; LAZDINIS; ANGELSTAM; PÜLZL, 2019). Recent surveys show data that further expand the estimate of those who depend on crops, raising to 2.5 billion people worldwide, and of these, 475 million are small farmers (DOHERTY; KITTIPANYA-NGAM, 2021).

Globalization creates opportunities and threats to countries, but it is an absolutely unavoidable objective phenomenon that cannot be canceled or stopped, but can be mitigated through more ecological economic policies (KRYSOVATYY, et al. 2018). It is considered a challenging task to achieve, as inclusive value chain development is complex and dynamic in its social, economic and ecological dimensions (LIE, et al. 2018).

The concept of inclusive business is strongly embedded in the United Nations 2030 Agenda for Sustainable Development (WANGU; MANGNUS; VAN WESTEN, 2020). Castro (2019) considers the need for a change in mentality towards more sustainable consumption practices and the production of services by the actors involved. Therefore, building this mentality of sustainability and social inclusion, which correspond to the objectives and goals of the Climate Agreement and the Agenda for Sustainable Development 2030. Other authors point out that these objectives establish the value of the individual's creative capacity, encourage the local aggregation of value, encourages the use of new technologies and renewable energies, food security and the promotion of the sustainable use of human and natural resources (CASTRO, 2019; AGYEKUMHENE, et al. 2020; WANGU; MANGNUS; VAN WESTEN, 2020).

For this change in mentality to occur and for people in poverty to benefit, it is necessary to know the flow of the value chain, although some results show that consumers can be affected due to the vulnerability of inclusive value chains (CAJAMARCA CAJAMARCA; BUENO SAGBAICELA; JIMBO DÍAS, 2019; REVOREDO-GIHA; TOMA; AKAICHI, 2020). Some authors consider that new forestry jobs are increasingly based on non-wood products (LAZDINIS; ANGELSTAM; PÜLZL, 2019; DEBROT, et al. 2020). But this is not a widely held view, given the lack of effort, progress, and stakeholder support (DEBROT, et al. 2020). For WANG, et al. (2020) an inclusive and ecological global value chain is the key to the sustainable development of the world economy. This would mean optimizing the results

within a sustainable environment and would enhance the natural sustainability of the entire chain among the participants (WANG, et al. 2020).

In this perspective, Danse, et al. (2020) says that the private sector can play an important role in helping low-income markets, which require innovative and inclusive business models (DANSE, et al. 2020). However, other authors propose that the best alternative is the public-private partnership, to combine their capacities through initiatives, support and strategic partnerships of an inclusive value chain. Studies show that when this partnership took place, it was possible to use agricultural innovations, link farmers to markets, include marginalized people in economic and social processes, and increase nutritional security, productivity and income (DEGATO; CARLOS, 2017; KRYSOVATYY, et al. 2018; DIJKXHOORN, et al. 2019; MGENI; MÜLLER; SIEBER, 2019; VELLEMA; SCHOUTEN; VAN TULDER, 2020; WANGU; MANGNUS; VAN WESTEN, 2020; DOHERTY; KITTIPANYA-NGAM, 2021).

However, other studies, such as the one by Doherty and Kittipanya-Ngam (2021) consider that there are growing problems of food insecurity and poverty in smallholder communities, requiring research in the area of inclusive value chain for smallholders (DOHERTY; KITTIPANYA-NGAM , 2021). The theme is also marked by many restrictions, such as: inaccessibility to input and product markets; lack of capital, knowledge and technology; poor infrastructure; social injustice; and inability to achieve economies of scale, which is essential to compete in regional and global markets (FETOUI, et al. 2020; WANGU; MANGNUS; VAN WESTEN, 2020). Agyekumhene, et al. (2020) say that small farmers in developing countries generally lack access to advanced agricultural supplies.

For Fetoui, et al. (2020) when development policies occur, there is a greater probability of inclusion of rural communities, social innovation that leads to the return of economic equity, which enables the economic, social and environmental conditions of disadvantaged groups (FETOUI, et al. 2020). It is considered that the construction of an Inclusive Value Chain - CVI helps in the competitiveness of the international market, products gain benefits from environmental, social and economic practices of inclusive value, and can be effective in achieving carbon emissions mitigation targets for countries that participate heavily in global value chains (PRATONO, 2019; WANG, et al. 2020).

Given the difficulties pointed out and seeking the requirements of environmental preservation and inclusive actions for communities and peoples of the Amazon forest, the research question is: is there application of the inclusive value chain in extractive reserves and what benefits this application has brought in the social aspect and for environmental sustainability?

Thus, the objective of this research is to describe how research on the Inclusive Value Chain has been applied to extractive reserves in the Amazon. The undertaking of this study is justified by the relevance of the theme in a global perspective, promoted by the 2030 Agenda of the United Nations for Sustainable Development, with a synergistic vision between environmental preservation of forests and social inclusion of forest communities and peoples. To this end, an inventory of scientific production was drawn up based on the subsidies of the scientific typology of reflective studies on the topic, authorship of documents, institutional affiliation of researchers, spatial identification of the occurrence of discussions on shared and inclusive value chain in the global scenario and chronological delimitation of publications, understood as the year 1990, period in which the theory gains the usual nomenclature.

2 LITERATURE REVIEW

This session presents the theoretical approaches resulting from bibliometric research, described in the methodology section. This content provides support for the development of the research. Literatures present characteristics and concepts related to CVI theory. Therefore, the literature review will present some theories found in bibliometric research that are relevant to the CVI theme.

2.1 Value Chain

The concept of value chain permeates the understanding of how a strategic network of companies is articulated so that their product is taken from primary production to the final consumer (SANTANA, 2011). Schneider, et al. (2009) considers that Michael Porter is one of the authors who contributed the most to industrial economics within the theme, and has had a predominant influence on strategy research.

The evolution of thinking about strategy considers two fundamental themes, one of them is to structure to achieve and sustain a life and the other is how to proceed with organizational and strategic changes (SCHNEIDER, et al. 2009). The value chain is seen as a powerful tool for a company's strategy in order to converge on a source of competitive advantage (FETOUI, et al. 2020). There are other theories that address competitive advantage and business strategy, however, Porter's structural industry analysis (SCP) and Barney's Resource-Based Vision (RBV) (SCHNEIDER, et al. 2009) will be highlighted here.

Porter's (1990) value chain concept is related to the purpose of evaluating the competitive dynamics of companies with a given product, so that the chain's profit margin reflects economic feasibility, based on the dynamics of its evolution, where gains, maintenance and loss of

competitiveness are evaluated (PORTER, 1990). Initially, the value chain concept aimed to understand the behavior of costs, existing sources and potential for differentiation of the company from the fragmentation of activities of strategic relevance (PORTER, 1990). It is considered that Porter's (1986) criteria conceptualize the use of the value chain as an analysis tool, allowing the identification of ways to generate value to achieve the fluidity of production processes (CAJAMARCA CAJAMARCA; BUENO SAGBAICELA; JIMBO DÍAS, 2019).

The Resource Based View (RBV) has its origins in economic theory from the studies of Edith Penrose (1959) with a focus on internal strategy, in which the unit of analysis is the resource (SEGATE; DE SOUZA; IGARASHI, 2019). In general terms, RBV is a strategy that aims to explain competitive advantage based on distinctive skills and resources. The implementation of the strategy intends to create value that no other competitor or rival organization could implement concomitantly (BARNEY, 1991). Barney (1991) tells us that a sustained competitive advantage is one that has a considerable temporal extension and is presented in four indicators: sustainable, differential or rarity, imitability and substitutability. For Gohr et al. (2011), points out that competitive advantage is one of the most important currents of thought in the field of business strategy today.

The RBV considers that the performance of organizations depends on the exploitation of valuable and rare resources, capable of generating and sustaining competitive advantage, supporting the development of policies and strategies of organizations and networks (GOHR et al., 2011; GONÇALVES; DE FREITAS COELHO; DE SOUZA, 2014; VEIGA; TORTATO, 2014). According to Veiga and Tortato (2014), the RBV is based on the idea that capabilities, competences and strategic resources are heterogeneously distributed among organizations and that these differences remain stable in the temporal aspect.

The authors also say that there are sources of competitive advantage that are linked to the understanding of skills and resources associated with sustainability, seen as valuable and distinctive attributes, which are related to reducing costs, increasing revenue or obtaining a positive reputation (VEIGA; TORTATO, 2014). The competitive advantage associated with sustainability is related to paradoxical economic and socio-environmental issues, and insert the need for protection mechanisms and sustainable strategies, linked to the social and environmental pillars (VEIGA; TORTATO, 2014).

Later, the authors Barney and Hesterly (2010) proposed an evolution of the RBV towards the Resource Based Theory (RBT), different from the 1991 model, changing the last aspect Replaceability by Organization, assuming the acronym VRIO, leaving Valor, Rarity, Imperfect Imitability and Organization (HART; DOWELL, 2011). Considering the attribute

organization as a strategic resource of companies (GOHR et al., 2011; GONÇALVES; DE FREITAS COELHO; DE SOUZA, 2014).

The environmental problems arising from population growth combined with the exponential expansion of industrial activity and the use of resources gained the attention of organizations as well as the multiplication of environmental challenges with climate, economic and social changes (HART; DOWELL, 2011).

Santana (2011) considers that the development of value chains offers the possibility to reduce costs, share risks, increase benefits and obtain lasting commercial relationships, as well as greater access to new production, information, communication technologies and improve the conditions of access to new sources of financing (SANTANA, 2011).

Other authors consider that the value chain has characteristics such as creating an overview between production and consumption, clarifying transactions between all stages (DEBROT, et al. 2020). It also allows planners to adapt services to growth where the variation in the demand of actors will provide monitoring and adjustments (CASTRO, 2019), knowledge of the value chain flow provides opportunities for the sale of products in the national industry or for export (CAJAMARCA CAJAMARCA; BUENO SAGBAICELA; JIMBO DÍAS, 2019). And value chains increase trade in intermediate goods and services (WANG, et al. 2020).

The food value chain is closely linked to the topic forest, deforestation and agriculture (DEGATO; CARLOS, 2017; LAZDINIS; ANGELSTAM; PÜLZL, 2019; SANDERSON, et al. 2019). In view of the deterioration of forest resources, which impact the economic aspect and also involve the ecological dimensions regarding the conservation of biodiversity, climate and social, as they affect the livelihoods of local communities (DEGATO; CARLOS, 2017; LAZDINIS; ANGELSTAM; PÜLZL, 2019; (SANDERSON, et al. 2019) Authors consider that the value chain involves food, consumers have sought transparency about food production and whether they address environmental issues, health care, food safety, whether food is organic and agroecological, as well as the externalities involved along the value chain. When this occurs, it is important to see what actions are taken to be mitigated, especially in the social aspect, with incentives that are included as a strategy to reduce poverty (LIMEIRA, 2015; NAZIRI, 2017; RUBEN, 2017; MWANGI, et al. 2020).

The value chain is a useful framework for diagnosing ways to improve agricultural value chains and facilitate the inclusion of smallholders, so it is important to talk about an inclusive value chain (LIE, et al. 2018), as it involves the ecological and social dimensions (LAZDINIS; ANGELSTAM; PÜLZL, 2019).

2.2 2030 Agenda and Inclusive Business

The United Nations together with its partners launched in 2015 the Sustainable Development Goals (SDGs). The UN met in 2015 in Paris for COP 21, with the purpose of finalizing a new agreement related to climate change (LIMEIRA, 2015). The SDGs are proposed by the UN so that the 2030 Agenda can be achieved. According to Embrapa (2018), the launch of the SDGs was a milestone for the protection of the environment and the promotion of sustainable development.

The UN and partners have established the SDGs as a development paradigm to be implemented from 2015 by countries, companies, civil society organizations and the population around the world, to be achieved over the next 15 years, until 2030 (Embrapa, 2018). The SDGs respond to the global call to end poverty, protect the environment and the climate, and ensure that people around the world enjoy peace and prosperity (UN, 2015).

There are 17 goals and 169 targets proposed to be achieved by 2030, it is considered that Brazil will play an important role in achieving the goals (Embrapa, 2018). The SDGs propose global actions in the areas of poverty eradication, sustainable agriculture and food security, well-being and health, education, gender equality, water and sanitation, clean and accessible energy, decent work and inclusive economic growth, innovation, infrastructure, industrialization, reducing inequalities, sustainable communities and cities, sustainable patterns of production and consumption, actions against climate change, sustainable use of rivers and oceans, protection of terrestrial ecosystems, peace, justice and effective institutions, partnerships and means of implementation (UN, 2015; Embrapa, 2018).

The SDGs merged the three dimensions of sustainable development, economic, social and environmental. Which have brought contributions not only in agriculture with food production and nutrition, but also in the eradication of poverty, gender equality, reduction of inequalities, clean energy and climate change, and with regard to natural resources with regard to production and consumption responsible for recycling and waste reduction (DEGATO; CARLOS, 2017; EMBRAPA, 2018; CAJAMARCA CAJAMARCA; BUENO SAGBAICELA; JIMBO DÍAS, 2019; MTIMET, et al. 2021). According to the advance of the Agenda, proposing sustainable agriculture will provide a more prosperous, equitable and healthier planet (Embrapa, 2018; DE HOYOS GUEVARA, et al. 2019).

According to Embrapa (2018) in Brazil the ODS would have positive impacts on agriculture, with mitigation of negative externalities, given the extensive area occupied with pastures and crops, although the large number of actors involved in agribusiness, in spite of the relevance of the sector in the economic aspect and improvement of the social well-being of the population.

Brandi, (2017) emphasizes that the 2030 Agenda for Sustainable Development, when considering business responsibly, and thus reducing the

environmental and social impacts on production along the supply chain, this would be considered a competitive advantage in global markets, an aspect that it already occurs in developed countries (BRANDI, 2017).

Castro (2019) considers that the SDGs permeate aspects such as valuing the individual's creative capacity, encouraging the local addition of value, encouraging the use of new technologies and renewable energies, sustainable use of human and natural resources (CASTRO, 2019). However, Sustainable Development also occurs through partnerships between companies and governments, public and private financial institutions, regional and multilateral development banks, social investment funds, NGOs, research institutes and sectors of civil society (LIMEIRA, 2015; (VELLEMA; SCHOUTEN; VAN TULDER, 2020; VAN TULDER, 2020).

The concept of inclusive business is integrated into the United Nations 2030 Agenda for Sustainable Development (CASTRO, 2019; WANGU; MANGNUS; VAN WESTEN, 2020). The main concepts about inclusive business presented in table 01 will be demonstrated.

Table 01. Main concepts found about inclusive business:

ONU (2015)	"Inclusive businesses offer, through their core business, goods, services and livelihood in a commercially viable and scaled manner for people with lower incomes, making them part of the value chain of companies such as suppliers, distributors, resellers, painters or customers"
Chamberlain and Anseeuw (2018)	"Inclusive businesses are complex partnerships between commercial entities and smallholders / low-income communities to include the latter in commercial agriculture and cultural value chains"
Wangu; Mangnus; Van Westen (2020)	"Inclusive business takes advantage of the synergy and collaboration between business actors (small producers and companies) and public actors (governments, civil society organizations and donors). By combining their capabilities, it is argued that companies and public actors would be able to meet development goals, which have proven difficult when handled independently by each individual entity."
Gupta et al. (2015)	"Inclusive development is about the maintenance of social life and environmental services, as well as the promotion of social justice, which involve government direction at various levels"

Source: Prepared by the author

The central issue of this concept is to establish the climate agreement, the development of society, sustainable economic growth, sustainable agriculture, food security, conservation, protection and restoration of ecosystems and biodiversity, response to climate change mitigation, and cooperation through partnerships for research and innovation so that all countries, local communities, small and medium enterprises can enjoy the benefits of inclusive business (CASTRO, 2019; DEBROT, et al. 2020; WANGU; MANGNUS; VAN WESTEN, 2020).

Inclusive businesses are conceptualized as commercially viable business partnerships between commercial entities, agribusinesses or large

corporations, small landowners and low-income communities that are the beneficiaries of the reduction in inequalities (CHAMBERLAIN; ANSEEUW, 2018; DOHERTY; KITTIPANYA-NGAM, 2021). It is considered as income opportunities for the various partners, as a way of empowering small-scale producers and communities, as partnerships alone are not achieving the results of inclusive development (VELLEMA; SCHOUTEN; VAN TULDER, 2020). The development of inclusive businesses in the value chain, contributes to reducing poverty, generating opportunities and developing communities to income generators, seeking to improve the well-being of the poorest and most marginalized (CAJAMARCA CAJAMARCA; BUENO SAGBAICELA; JIMBO DÍAS, 2019; WANGU; MANGNUS; VAN WESTEN, 2020).

The need for inclusive business is highlighted due to the globalization of international markets to lead to market inequality, especially in developing countries, posing as threats at regional, national and international levels (NAZIRI, 2017; KRYSOVATYY, et al. 2018). There is still a need for inclusive business when addressing food and nutrition security, which requires inclusive and innovative business models (DANSE, et al. 2020).

Inclusive businesses interact with social inclusion, with a focus on people's well-being, by offering living conditions and access to material resources essential for a satisfying life, and also with regard to personal well-being in relation to others, therefore encompassing the social, relational and environmental results (WANGU; MANGNUS; VAN WESTEN, 2020).

2.4 Inclusive Value Chain

The concept of the inclusive value chain (CVI) emerged as a way of positively or desirable interventionist integration of the value chain between companies, low-resource and poor farming families, in order to commercially include and generate opportunities, bringing social benefits such as reduction poverty for small farmers, income and employment generation, economic growth, environmental performance, gender equality and other development goals (CHAMBERLAIN; ANSEEUW, 2018; DEVAUX, et al. 2018; DIJKXHOORN, et al. 2019; MGENI; MÜLLER ; SIEBER, 2019; PRATONO, 2019; DOHERTY; KITTIPANYA-NGAM, 2021; MTIMET, et al. 2021).

An understanding of different stakeholders is important to identify mutually beneficial options in order to improve the performance of the chain, especially increasing and maintaining constant benefits for the poor and improving the prospects of sustaining an intervention (DEVAUX, et al. 2018) . Smallholders would benefit from safer market connections, access to new services and technology for production, alleviation of resource constraints and consequently increased income. It is from this perspective that governments

and development agencies adopt the CVI for rural poverty reduction (DEVAUX, et al. 2018).

In order for the concept of CVI to be implemented, a change in mentality towards more sustainable consumption practices and the production of services for the actors involved is necessary, in addition to, of course, social inclusion (CASTRO, 2019). Europe is a clear example of this change in mindset, as forestry jobs are increasingly based on non-timber products, adding value to increasingly differentiated aspects such as landscape, tourism, amenity and well-being provided by the ecosystem (LAZDINIS; ANGELSTAM; PÜLZL, 2019). Castro (2019) considers that results like these will only be achieved in countries that join efforts between the public sphere, private sectors and universities for the sustainable use of ecosystems. Precisely, the lack of ecological mentality has been an impediment for an inclusive supply chain to occur, followed by another factor such as taxation in developing countries, taking away the well-being of poor farmers (REVOREDO-GIHA; TOMA; AKAICHI, 2020) .

It is considered that an inclusive business model, when inserted in the value chain of a company, which has on the one hand customers and consumers with demands, and on the other hand vulnerable producers as providers, commercially viable and beneficial links to communities of sustainable low-income (REVOREDO-GIHA; TOMA; AKAICHI, 2020).

The CVI develops into pro-poor, accompanied by social innovation that enables the economic, social and environmental conditions of disadvantaged groups (FETOUI, et al. 2020). CVI intervenes to help in the competitiveness of the international market, where products gain benefits from environmental, social and economic practices (PRATONO, 2019). But for CVI to work well, it needs support activities such as technological support, transport, communications, access to credit, market information, quality training and marketing support, which are considered essential (DEBROT, et al. 2020). A limiting aspect in some cases is that participation in inclusive agribusiness brings more benefits to smallholder families with greater production capacity, given better physical capital, access to loans and human capital, in an effort to reduce costs transaction (WANGU; MANGNUS; VAN WESTEN, 2020). However, despite the CVI generating socioeconomic benefits for small farmers included, such potential benefits may be contradictory to environmental sustainability, as they point to some undesirable implications (BRANDI, 2017). Another limiting aspect is environmental injustice, where land is appropriated by powerful private interests, limiting the benefits that smallholders can obtain (DEBROT, et al. 2020; WANGU; MANGNUS; VAN WESTEN, 2020).

For the inclusion of small farmers to be successful, trust is a key factor. When the relational context between the actors, trust is built in an interactive way, and mutually reinforces each other, this will result in a

positive acceptance of trust, favoring the implementation of a CVI (DIJKXHOORN, et al. 2019).

3 METHODOLOGY

To carry out this research, we opted for a literature review, in which we sought, at first, to build, from the literature, a description of research on CVI applied to extractive reserves. The research will serve to describe how development policies have helped to build a CVI in order to achieve efficiency in meeting the goals of inclusion of rural communities in achieving greater economic growth and social inclusion for disadvantaged groups, communities and forest peoples. And in the environmental aspect, the mitigation of carbon emissions and preservation of forests for countries that participate heavily in global value chains.

To locate the articles, systematic techniques of search, identification and bibliographic treatment were applied. The strategy for identifying the articles included the carrying out of systematic literature searches, using the Scopus, Scielo and Web of Science databases. These databases were chosen in view of their recognition by the academic community, as well as the range of publications that are indexed by them, and the availability of access through a service provided by the National Education and Research Network (RNP).

The search for publications took into account the UN meeting in Paris, France, where the SDGs are proposed and implemented from 2015 onwards. 2 years for publications, until 02/12/2021, date on which the searches were carried out.

After performing adherence tests in order to verify the alignment of descriptors to the databases, the searches used the criteria to locate in keywords, title and abstract the following expressions “including value chain” and “extractivism”. On this occasion, the Boolean operator "AND" was applied to restrict the search to references that simultaneously contained all descriptors typed inside a pair of parentheses and "OR" so that the expression typed inside another pair of parentheses could be found, alternatively (VILLEGAS, 2003).

In the Scopus database, the search was performed with the following expression: “including value chain”, which returned a total of 419 documents. The next step was to add the filter for the term “extractivism”, and no articles were found relating “inclusive value chain” and “extractivism”. In an attempt to find articles related to social networks linked to extractive actors, the search term “extractivism” was replaced by the term “nets”, networks. From the expressions "including value chain" and "nets" 82 documents were returned, and the restriction was applied to the type of document "articles", and articles with restricted access were checked, and 64 articles were selected for reading. titles, keywords and summaries for verification fell within the scope of the research.

In the Scielo database, the same previous procedure was used, with the search term “inclusive value chain”, and 07 articles returned. With a lower than expected return, the 07 articles were checked if they had access, and if there was access to the 07 articles, they were included and separated for reading the titles, keywords and abstracts for verification if they fit the research theme.

In the search carried out in the Web of Science database, the same procedure as above was used, with the search term TS= (including AND value AND chain), and 159 documents returned. After applying the filter to select only articles and discarding articles with restricted access, 71 articles were selected for reading the titles, keywords and abstracts for verification that fit the scope of the research.

In applying the search, a total of 142 references of works potentially eligible for the search were found. Table 02 presents the quantitative synthesis of the references retrieved by base.

Table 02 – Summary of searches.

DATE	DESCRIPTORS	LOCAL	FILTER	DATABASE			RETRIEVED REFERENCES
				Scopus	Scielo	Web of Science	
02/12/21	“including value chain” and “extractivism”. TS=(including AND value AND chain)	Title, keywords and abstract	2017 to 02/12/21	64	7	71	142

Source: research data.

The complete bibliographic data of these 142 references were downloaded and compiled into a single file compatible with the Microsoft Excel spreadsheet *software*, in which a checking procedure was carried out in order to identify any duplicate references. This procedure identified 13 duplicate articles, which were removed from the list of references, leaving 129 articles for reading the titles, keywords and abstracts.

Then, titles, keywords and abstract of references were read, as indicated by Dienstmann *et al.* (2014) and by Ramos, Oliveira and Azevedo (2019), aiming to identify and exclude, from now on, those that clearly did not fit the scope of the research. From this procedure, 98 references that did not fit the theme of the corner were identified and eliminated, and 31 articles were selected for *downloading* the full texts.

When *downloading* the complete publications, in order to fully read the texts, 01 reference was dispensed with, as free access through the networks of the Federal University of Rondônia was not possible.

Finally, a complete reading and analysis of the works was carried out, at which time another 04 articles were excluded, as they were not within

the scope of the research, even citing the term "including value chain" in the abstract, when reading the article it was found that it was not the subject.

Figure 01 shows the flowchart of the analysis process for inclusion and exclusion of texts in future bibliometric analysis.

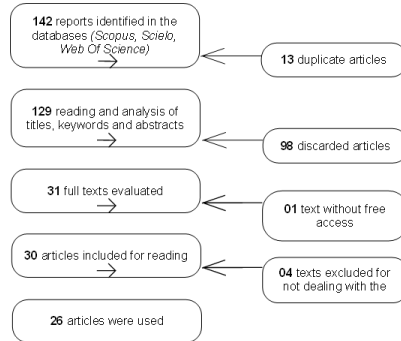


Figure 01 – Inclusion and exclusion analysis flowchart

Source: adapted from Moher *et al.* (2009).

During the analysis procedure of the works included in this corner, data extraction was performed with the support of a standard form, developed to capture information on variables considered important in the study scenarios, such as authors, places, dates, methodologies, among others, which allowed a better understanding of the literature on the subject.

4. RESULTS

This section presents the results obtained in the bibliometric research, described in the methodology section. This content provides support for the development of the research. The analysis of the bibliography obtained through the application of the systematic protocol, described in the previous section, allowed us to obtain 26 works that dealt with the Inclusive Value Chain, however, there were no cases in direct relation with extractivism.

Table 03 presents the main subjects found in the articles, where three portfolios were identified, Value Chains, Inclusive Value Chain and Inclusive Business. The dimensions considered in the articles involved the ecological, social and economic dimension, and sometimes treated in a mixed way.

Table 03 – Main subjects in the articles.

Categories	Dimensions	Sources
Value chain	<p>Ecological (Environmental; Conservation of biodiversity; Deforestation and agriculture)</p> <p>Social (Subsistence of local communities)</p> <p>Economic (Strategic competitive advantage; Generate value; Production processes; Sales of domestic or export products; Forest resources)</p>	<p>Degato; Carlos, 2017</p> <p>Lazdinis; Angelstam; Pulzl, 2019</p> <p>Lie, et al. 2018</p> <p>Fetoui, et al. 2020</p> <p>Cajamarca Cajamarca; Bueno</p> <p>Sagbaicela; Jumbo Days, 2019</p> <p>Wang, et al. 2020</p> <p>Sanderson, et al. 2019</p> <p>Naziri, 2017; Ruben, 2017</p> <p>Mwangi, et al. 2020</p> <p>Han; Bad; Wang, 2018</p>
Inclusive Value Chain	<p>Ecological (Greener economic policies; Environmental performance; Non-timber products)</p> <p>Social (Social benefits; Poverty reduction; Income and employment generation; Gender equality; Social inclusion; Well-being of poor farmers; Trust)</p> <p>Economic (Global Chain; Economic growth; Development; Competitiveness of the international market; Physical capital; Loans; Human capital; Reduce transaction costs; Private interests of the powerful)</p> <p>Mixed (2030 Agenda; Social, economic, social and environmental innovation)</p>	<p>Krysovaty, et al. 2018</p> <p>Wangu; Mangnus; Van Westen, 2020</p> <p>Chamberlain; Anseeuw, 2018</p> <p>Dijkxhoorn, et al. 2019</p> <p>Mgeni; Muller; Sieber, 2019</p> <p>Praton, 2019</p> <p>Doherty; Kittipanya-Ngam, 2021</p> <p>Castro, 2019</p> <p>Lazdinis; Angelstam; Pulzl, 2019</p> <p>Revoredo-Giha; Take; Akaichi, 2020</p> <p>Vellema; Schouten; Van Tulder, 2020</p> <p>Fetoui, et al. 2020</p> <p>Debrot, et al. 2020</p> <p>Brandi, 2017</p>
Inclusive Business	<p>Ecological (Agriculture; Clean energy; Climate change; Natural resources; Waste reduction; Sustainable agriculture; Sustainable use of forests)</p> <p>Social (Eradication of poverty; Gender equality; Reduction of inequalities; Empowerment of producers; Welfare of the poorest and most marginalized; Food and nutrition security)</p> <p>Economic (Competitive advantage in global markets; Human and natural resources; Income opportunities; Development)</p> <p>Mixed (2030 Agenda; SDGs; Innovative and inclusive business; Responsible business; Environmental and social impacts; Partnerships; Inclusive development)</p>	<p>Wangu; Mangnus; Van Westen, 2020</p> <p>Cajamarca Cajamarca; Bueno</p> <p>Sagbaicela; Jumbo Days, 2019</p> <p>Brandi, 2017</p> <p>Degato; Carlos, 2017</p> <p>Castro, 2019</p> <p>Vellema; Schouten; Van Tulder, 2020</p> <p>Debrot, et al. 2020</p> <p>Chamberlain; Anseeuw, 2018</p> <p>Doherty; Kittipanya-Ngam, 2021</p> <p>Naziri, 2017</p> <p>Krysovaty, et al. 2018</p> <p>Danse, et al. 2020</p> <p>Mtimet, et al. 2021</p> <p>Agyekumhene, et al. 2020</p>

Source: elaborated by the author.

Table 04 presents a classification of articles according to authors, country, year and category applied to the journal. The table presents revised results and related areas of extractivism such as administration and economy, sustainability, agriculture and forests. However, no article was identified in the bibliometric research directly linking extractivism with the Inclusive Value Chain. Demonstrating the avoidance of conducting research that addresses the interconnected themes.

Table 04 – Classification of articles.

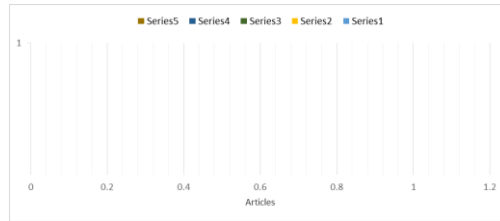
authors	Parents	Year	Categories
Debrot, et al. 2020	Indonesia	2020	Forests
Wangu; Mangnus; Van Westen, 2020	Kenya	2020	sustainability
Agyekumhene, et al. 2020	Ghana	2020	sustainability
Fetoui, et al. 2020	Tunisia	2020	Mediterranean Journal of Economics, Agriculture and Environment
Krysovaty, et al. 2018	Ukraine	2018	Economic Annals - XXI
Naziri, 2017	Uganda	2017	Enterprise Development and Microfinance
Ruben, 2017	Netherlands	2017	Enterprise Development and Microfinance
Castro, 2019	Brazil	2019	Interactions (Big Field)
Cajamarca Cajamarca; Bueno Sagbaicela; Jumbo Days, 2019	Ecuador	2019	Magazine of Sciences of Administration and Economy
Doherty; Kittipanya-Ngam, 2021	Thailand	2021	sustainability
Revored-Giha; Take; Akaichi, 2020	Malawi	2020	sustainability
Wang, et al. 2020	Belarus	2020	Proceedings of the Royal Society A
Vellema; Schouten; Van Tulder, 2020	Nigeria	2020	Proceedings of the Royal Society A,
Mwangi, et al. 2020	Kenya	2020	sustainability
Danse, et al. 2020	Netherlands	2020	Global Food Security
Sanderson, et al. 2019	Switzerland	2019	SN Applied Sciences
Lazdinis; Angelstam; Pulzl, 2019	European Union	2019	Landscape Ecology
Dijkxhoorn, et al. 2019	Kenya	2019	Journal of Development
Praton, 2019	Indonesia	2019	International Journal of Emerging Markets
Mgeni; Muller; Sieber, 2019	Tanzania	2019	sustainability
Mtimet, et al. 2021	Somaliland	2018	pastoralism
Lie, et al. 2018	Nicaragua	2018	agricultural systems
Han; Bad; Wang, 2018	China	2018	Chinese Public Administration Review
Chamberlain; Anseeuw, 2018	South Africa	2018	Land
Degato; Carlos, 2017	Ethiopia	2017	Journal on Innovation and Sustainability
Brandi, 2017	Indonesia	2017	Sustainable Development

Source: elaborated by the authors.

5. DISCUSSION

Graph 01 shows the productions by period and continents. It shows that in 2017, 04 articles were produced, 01 from Europe, 01 in Asia and 02 in Africa. In 2018, 05 articles were produced, 01 from Europe, 01 in Asia and 02 in Africa and 01 in Central America. In 2019, production grew, with 07 articles being produced, 02 from Europe, 01 in Asia and 02 in Africa and 02 in Latin America. In 2020, the largest production took place, with a total of 09 articles produced, 02 in Europe, 01 in Asia and 06 in Africa. In 2021, only 01 article was identified in Asia. The total production by continents showed

Africa with the highest production, with 12 articles. Next comes Europe with 06 articles. Asia had 05 articles published. Finally, Latin America with 02 publications and Central America with 01 publication.



Graph 01 – Productions by period and continents

Source: research data.

The graph and tables show as a result that there was an insignificant amount of research on CVI in Latin America, even though the Amazon region is one of the largest producers of tropical wood in the world, with its ecosystem threatened and with several externalities in the environmental and social area (DE MELO *et al.*, 2015). As an enabling environment for the implementation of development policies, and more likely to include rural communities, social innovation for disadvantaged groups through CVI (FETOUI, et al. 2020).

In the end, the research produced a matrix of 26 articles related to the Inclusive Value Chain theme, but none related to the Extractivism theme. Extractivism is considered an economic activity that mitigates negative externalities in forest environments, and that provides economic and social development opportunities for forest populations, maintaining the forests, optimizing results within a sustainable environment.

The research presented an insignificant number of articles in Latin America, even though it contains the largest tropical forest in the world, with its ecosystem threatened and with several externalities in the environmental and social area, and that contains populations that depend directly on the forest as resources. The result showed Africa with 12 publications, being the largest production, followed by Europe with 06 articles. Latin America together with Central America had 03 publications.

The research did not reach the established objective, which was to describe how research on the Inclusive Value Chain has been applied in extractive reserves, this due to the lack of research on the Inclusive Value Chain in extractive reserves, being a limiting factor for researchers in forest environments . At the end of the analysis of the results and evaluation of the limitations of this research, it is recommended that further research on the topic in Latin America is recommended, and that it is the continent with the largest tropical forest in the world.

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