Towards poor-centred value chain for sustainable development: A conceptual framework

Thai Thi Minh | Charity Osei-Amponsah

Abstract

Value chain for development (VCD) has increasingly been promoted for poverty reduction; yet, there is inadequate evidence on its effectiveness. Based on a comprehensive literature review, this article offers reasons why evidence on VCD impacts on poverty reduction is uncertain. It also suggests a conceptual framework for the poor-centred value chain for sustainable development to guide a better analysis of VCD participation and poverty impacts. The framework is particularly useful for researchers involved in research for development related projects in the VCD space. As it provides an analytical lens to understand the broader contextual situation of the poor, co-design solutions with multi-stakeholders and implement appropriate “fit-to-needs” strategies that ensure the poor benefits from their VCD participation. The article contributes to the existing VCD discourse by reflecting on the multi-dimensional nature and dynamism of poverty reduction, the poor’s heterogeneity and their value chain readiness and VCD impacts on poverty.

KEYWORDS

livelihood diversification, multi-stakeholder engagement, poverty dynamics, poverty impact, value chain for sustainable development, value chain readiness

1 | INTRODUCTION

Since its introduction in the 1980s, value chain approaches have increasingly been adopted into the value chain for development (VCD) debate as instruments to spur economic growth and poverty reduction (Altenburg, 2006; Neilson, 2014; Staritz, 2012; Werner, Bair, & Fernández, 2014). By the mid-2000s, there was a VCD proliferation as a result of donor increased interests and funding for national poverty reduction (Stoian & Donovan, 2020). Although, huge funding sums have been invested in VCD, there is considerable debate and uncertainty on its effectiveness (Devaux, Torero, Donovan, & Horton, 2016). For instance, there is inadequate evidence on its effectiveness in helping the poor to escape from poverty (Altenburg, 2007; Humphrey & Navas-Alemán, 2010; Stoian, Donovan, Fisk, & Muldoon, 2012; Werner et al., 2014) and addressing constraints and opportunities in national poverty reduction (Devaux, Velasco, Ordinola, & Naziri, 2020). In most VCD interventions, poor people have been excluded as they are not able to keep up with increasing standards imposed by global markets (Werner et al., 2014). In others, integrating the poor into VCD could lead to poverty as it could make them vulnerable (Hainzer, Best, & Brown, 2019; Humphrey & Navas-Alemán, 2010).

Discourse on the uncertainty between VCD and poverty impacts has been questioning how VCD can be designed to directly target poor-producers and their diverse livelihoods and secure private sector’s active engagement with the poor (Donovan, Franzel, Cunha, Gyau, & Mithöfer, 2015; Horton, Donovan, Devaux, & Torero, 2016; Werner, 2012). As a response, some researchers have focused on studying diverse approaches and value chain features to enhance the poor engagement into designing and implementing VCD...
This article conceptualises a poor-centred VCD framework to guide poverty and value chain analysis to better unravel insights to design the poor-centred VCD strategies to achieving poverty impacts. Specifically, the article explains why VCD effectiveness on poverty impact is limited and how VCD can be conceptualised to better target poverty reduction. The article is particularly useful for research for development (R4D) researchers involved in VCD projects as it provides an analytical lens to better understand the pre-implementation contextual conditions and poverty attributes towards a well-informed VCD interventions’ design and operationalisation.

2 | METHODOLOGY

A comprehensive literature review was used to analyse VCD in practice and conceptualise poor-centred value chain for sustainable development framework (hereafter poor-centred VCD framework). The review encompassed two interrelated and intertwined stages with introduction of some feasibility in types of references (Collins & Fauser, 2005). The first stage started with a comprehensive search for all potently VCD-related references based on a set of “value chains for development” synonyms, including value chain approach/framework/guideline, value chain intervention, and GVC (Figure 1). Since

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value chain concepts are co-emerged in both scientific and practice communities, Google and Google Scholar were used for the search to gather more diverse types of highly relevant scientific articles, guidelines, and “grey literature”. 182 documents were downloaded and analysed. It was noted that there has been an increasing interest in incorporating livelihood approaches into value chains to better target poverty. Hence, the second stage had additional keywords, including poverty, livelihood assets, value chain structure, governance, value addition, enabling environment and upgrading, resulting in downloading 123 documents.

The downloaded documents were analysed using an inductive qualitative content analysis (Graneheim & Lundman, 2004). The documents were first schemed to identify themes that explain VCD’s limited poverty impacts, and embedded with theoretical background for conceptualising the poor-centred VCD framework. This resulted in classifying 180 documents selected from 305 downloaded ones into four themes, using criteria presented in Figure 1. A set of guiding questions was developed to analyse the documents in each category. Each selected document was read in reflection to the guiding questions to identify relevant concepts. These concepts were further analysed and classified into sub-categories based on their similarities, differences and relationships. Building on this, coding schemes were constructed to characterise how VCD targets poverty reduction in practice, develop general arguments and assumptions on how poverty reduction should be better targeted, and conceptualise the poor-centred VCD framework tailored to poverty impacts (presented in the right side of Figure 1).

The analytical process involved refining of themes and corresponding sub-categories. Although all the articles selected were coded, relatively few publications were included in the review’s discussion. This is because the selected publications in categories of VCD-related guidelines and VCD impact evaluation are mainly in practitioners’ domain, lacking discussion with high scientific quality and relevance. For different reviewed articles, written by the same author(s), with similar scope that links the same themes, only articles that were cited mostly by other works or/presented up-to-date works in the field were referred to in the analysis. For articles having the same scope, reference in the analysis was prioritised to ones covering more themes that appeared in the review and ones that were cited mostly by other works.

2.1 Value chains for development and poverty reduction

Table 1 presents three VCD approaches adopted by practitioners. Strong link approach argues that working with strongest link(s) in the chains can help to reduce poverty. Often the strongest link is referred as lead-firms (Humphrey & Navas-Alemán, 2010) that have decisive roles to determine who can enter the chains, what and how products are produced, and how benefits should be distributed (Altenburg, 2007; Staritz, 2012). It is assumed that when lead-firms’ technological and organisational advantages are mobilised to help developing countries’ actors to function more efficiently in value chains, there will be local spillover effects, resulting in economic development and poverty reduction (Beall, 2012; Donovan et al., 2015; Kula et al., 2006). Similarly, when developing countries’ producers gain more secure market outlets and knowledge access, there will be increased benefits for the poor (Humphrey, 2005). Many strong-link-based interventions, therefore, centred on economic growth (Beall, 2012; Kula et al., 2006), referring poverty reduction to overall goals without focusing on specific poor groups (UNIDO, 2009). Others target the poor through their localities and sectors they derive incomes from. Such interventions have the tendencies to focus on better-off farmers while ignoring a large share of the poor-producers. Hence, strong-link-based interventions do not guarantee that real poor people would benefit (Humphrey & Navas-Alemán, 2010; Staritz, 2012).

Weak link approach views production or processing function where the poor participates as the chains’ weak links (Bolwig, Ponte, Riisgaard, du Toit, & Halberg, 2011). It is argued that GVC participation can expose the poor-producers to risks as they generally lack a cushion enabling them to take on risks. Poverty-targeted VCD needs to directly target these groups based on their risk-management abilities (Bolwig et al., 2010; KIT et al., 2006). It is assumed that incorporating GVC’s horizontal and vertical aspects into the broader upgrading can increase smallholder producers’ “rewards and/or reduces exposure to risk – where rewards and risks are understood both in financial terms and with regard to outcomes related to poverty, gender and the environment” (Riisgaard et al., 2010, p. 196). The weak-link-based interventions address poverty reduction through directly working with the poor, concentrating on their needs and maximising their participation opportunities. These interventions often include building the poor’s technical, management and marketing skills, strengthening their market power and improving their access to financial and institutional services (Baan & Janssen, 2006; Gammage, 2009).

Whole chain approach views the poor’s participation in increasing competitiveness economy as necessary conditions for poverty reduction (Herr & Tapera, 2009; Springer-Heinze, 2007). Poverty impacts can be achieved by promoting the poor’s GVC participation. Whole-chain-based interventions can be in narrow scope in that poverty reduction is often rooted within a geographical area or working with specific poor groups. However, its impacts are usually limited to a very small proportion of the poor. More so, these interventions might create more risks for the poor (Humphrey & Navas-Alemán, 2010).

Three VCD approaches highlight several common issues. First, VCD is dominated by a linear and static poverty perspective. VCD mainly conceptualises poverty either from money-metric or capability definition. VCD often focuses on specific poverty stocks at certain points of time such as people that are or stay poor (poor) or people that are or stay close to the poverty line (pro-poor). This leads to the popularity of problem-based approaches mainly focus on economic issues and problems. Second, VCD is often derived from a top-down agenda, generally laid out before developing interventions. Most VCD projects start with selecting a specific sector and/or a GVC regarding possibility to achieve dual-objectives of economic growth and poverty reduction. This pre-selection could lead to wrong choices and/or
restrictions in the selected chain’s nature rather than the poor’s abilities to benefit from interventions.

Third, VCD practices are dominated by a bias to GVC framework. The bias includes disregarding the co-existing local, regional and national chains and concentrating on products and export-oriented enterprises that serve global markets. It also emphasises upgrading that can help to shift values within a chain rather than create more value. However, as indicated in a recent study, developed countries benefit from both forward and backward GVC participation while developing countries only benefit from backward participation (Ndubuisi & Owusu, 2020). This is mainly because the developing countries’ poor-producers have relatively lower technological and managerial capabilities required to be efficient in the chains. More so, upgrading can lead to reduced returns to the poor exporters due to increased costs associated to complying with given standards. Thus, poverty impacts are limited to few returns to the poor exporters due to increased costs associated to complying with given standards. Thus, poverty impacts are limited to few returns to the poor exporters due to increased costs associated to complying with given standards. Thus, poverty impacts are limited to few returns to the poor exporters due to increased costs associated to complying with given standards. Thus, poverty impacts are limited to few returns to the poor exporters due to increased costs associated to complying with given standards. Thus, poverty impacts are limited to few returns to the poor exporters due to increased costs associated to complying with given standards. Thus, poverty impacts are limited to few returns to the poor exporters due to increased costs associated to complying with given standards. Thus, poverty impacts are limited to few returns to the poor exporters due to increased costs associated to complying with given standards. Thus, poverty impacts are limited to few returns to the poor exporters due to increased costs associated to complying with given standards. Thus, poverty impacts are limited to few.

Fourth, VCD often neglects the poor’s livelihood diversity and capabilities. Many poor producers usually spread their livelihood risks...
and diversify incomes through several strategies. For instance, some completely opt out of value chains (Tobin, Glenn, & Devaux, 2016) while others combine subsistence and market-oriented production, off-farm labour and non-agricultural enterprises (Stoian et al., 2012). Further, VCD participation usually implies that poor-producers must rely on single specialised value chain which might not address their subsistence needs. VCD implicitly assumes that the poor-producers are a homogeneous group, but this is not the case (Donovan et al., 2015).

Finally, VCD interventions are departing from directly targeting the poor. For example, the strong link approach targets poverty reduction through working with small producers and micro firms. In the weak link approach, the poor are regularly seen as smallholder producers, who may not necessarily belong to actual poor groups. In the whole chain approach, poor people are commonly conceptualized as producers, however, many of them are engaged as formal or informal workers in large- or medium-sized firms.

A comprehensive framework is needed to unpack these peculiarities of the poor and to design VCD strategies that effectively take them out of poverty. As there is a growing consensus on importance of poor-centred VCD interventions (Devaux et al., 2018; Rob & Cattaneo, 2021; Stoian et al., 2012; Werner et al., 2014), it is essential to explicitly pursue poverty reduction goals. It requires greater attention to the poor’s needs and circumstances (Donovan et al., 2015; Herman & Minh, 2020; Stoian et al., 2012) and incorporation of rural development into VCD (Challies & Murray, 2011; Stoian & Donovan, 2020; Neilson & Shonk, 2014). In line with these contentions, this article argues that VCD requires an additional poor-centred approach that directly reaches the poor, targets their meaningful participation and anchors on their livelihood diversity and capabilities.

2.2 Towards the poor-centred value chain for sustainable development

Poverty is one of the key concepts providing important justifications for policy formulation and promotion of economic growth, nationally and internationally (Laderchi, Saith, & Stewart, 2003; Misturelli & Heffernan, 2008). Laderchi et al. (2003) presented four alternative understandings of poverty: monetary (Lewis & Ulph, 1998), capability (Sen, 1999), social exclusion (Atkinson, 1998) and participatory (Chambers, 1994). Over recent decades, poverty concepts have broadened with inclusion of vulnerability, inequality and human rights issues. The causal structure has deepened, shifting from changes in the poverty stock and reduction to flows of individuals into and out of poverty (Shaffer, 2008).

These changes have been reflected in VCD, particularly in the weak link approach through addressing assets needed by the poor for their effective participation and building these over time to enhance permanent poverty outflow and livelihood resilience (Donovan & Stoian, 2010). Bolwig et al. (2010, p. 179) argued that “poverty itself is a political and normal term” and the horizontal analysis, therefore, should be integrated into GVC-centred perspective approach to address both animating policy jargon and popular discourse about poverty. The horizontal analysis aims at investigating what changes in livelihood security and wellbeing outcomes can be created by VCD interventions and how these outcomes might be affected by changes in the way the chains are operated (Donovan & Stoian, 2010; Stoian & Donovan, 2020). However, existing VCD approaches present potential conflict between focuses on single specialised chains and diversified livelihood strategies of the poor. There is the need for a poor-centred VCD to effectively manage trade-offs and risks while strengthening resilience through building appropriate tangible and intangible assets for the poor.

In this article, the fundamental assumption is that poverty is a situation where heterogeneous group of households has a subsistent physical well-being below the poverty line (Hulme & Shepherd, 2003). Since the poor are heterogeneous groups and the poverty line is context-dependent, poverty must be studied at individual, household and social group levels with reflection on geographical context and community features where the poor belong to (Laderchi et al., 2003).

The poverty situation is not static but dynamic with flows of households between poor and other welfare categories in or/and out of impoverishment (Shaffer, 2015), involving multi-dimensions, manifestations and causes (Misturelli & Heffernan, 2008; Shaffer, 2008). These processes are influenced by external causes (outsiders’ perception about the poor, recognition of their reality and needs, and distribution of resources and opportunities for their access), and internal causes (the poor’s conditions and abilities to access available resources, and opportunities for improving their conditions) (Laderchi et al., 2003; Shaffer, 2008). Consequently, these processes result in physical, economic, social, political and psychological deprivations (Misturelli & Heffernan, 2008; Shaffer, 2008). Poverty measurement is, therefore, multidimensional, involving comprehensive economic well-being, capability and social inclusion indicators (Barder, 2009; Wagle, 2005). Hence, the poor-centred VCD generally aims at developing strategies and pathways to directly assist the poor to exit from poverty.

From this backdrop, a poor-centred VCD framework is conceptualized for R4D researchers to engage with the VCD beyond the business-as-usual simple value chain analysis (Figure 2). This is because broader analytical issues pertaining to multiple needs and diversified livelihoods of the poor are required to better understand how to effectively operationalized VCD for the real poverty impacts (Donovan, Stoian, & Poe, 2017). The poor-centred VCD framework details a step-wise process to analyse poverty situation (Step 1) and value chains (Step 2) as well as identify value chain readiness of the poor (Step 3) and poverty-targeted interventions (Step 4).

2.2.1 Step 1. Analysing the poverty situation

This step aims at investigating who and where the poor are, what characterises the poor’s capabilities and livelihood strategies, and who stays or moves in/out of poverty, and why and how? These
specifications of poverty structures and flow and context-sensitivity are vital to determine which poverty reduction indicators should be targeted and what poor groups should be incorporated into which value chains. Thus, context, community and household are suggested as three analytical levels for poverty situation analysis (Table 2).

**Context analysis** examines contextual conditions and trends and socio-cultural and political processes that explain multidimensional poverty. It focuses on investigating the relative poverty lines and geographical and non-geographical factors that affect poverty (Laderchi et al., 2003). It helps to understand poverty's fundamental causes, outline relevant markets' boundaries, select locations/communities for poverty reduction, choose units for measuring poverty and define the efficiency of targeting.

**Community-level analysis** examines targeted communities' structural characteristics and the poor's situations that can lead to their exclusion from value chains. It focuses on studying poverty flow and processes (Shaffer, 2008) within communities and their social systems (Laderchi et al., 2003). It helps to distinguish between types and processes of poverty flows, understand immediate causes poverty and identify community-based facilitations for poverty reduction. These outcomes are used to classify different poor groups to be targeted by VCD, and determining appropriate measures and indicators for poverty reduction.

**Individual-level analysis** is conducted to gain insights about targeted poor households' resource availability, capabilities and lifestyle. It inspects livelihood strategies (Scoones, 2009) that determine the households' moving upward and downward on the poverty line, building and increasing returns on their assets and transforming their livelihood assets into strategies and outcomes (Feliciano, 2019; Guo et al., 2019). Of various livelihood assets (Table 2), the first four capitals reflect households' internal capacity; while the others reflect context-dependent-assets in that the availability, claims and access to internal livelihood capitals and conditions of using these capitals are locally and culturally dependent and significantly mediated by social relations (Ellis, 2000; Li et al., 2020; Shaffer, 2008). Livelihood access is abilities to benefit from available resources (Ribot & Peluso, 2003), involving material, cultural and political-economic strands emerging from people with effects of social relationships and capacity of some actors to affect others' behaviours. These abilities are embodied in and exercised through various access processes, mechanisms and relations (Table 2). Hence, livelihood analysis can be started by identifying diverse activities that individual poor households use to generate income and maintain livelihood (Chambers & Conway, 1992). These understandings give orientations of which livelihood dimensions and strategies should be targeted in VCD processes.
2.2.2 | Step 2. Analysing value chains

This step aims at understanding the dynamism of capitalist processes in selected value chain(s) and identifying opportunities and possibility for the poor's VCD participation. Table 3 presents conceptual elements that guide the value chain analysis.

Analysing value-chain-structure investigates strategic networks that cultivate over time, involving many independent actors in extensive collaborations (Challies & Murray, 2011; Donovan et al., 2015; Trienekens, 2011). The structure integrates functions and actors as well as geographical and vertical allocations of functions and actors at different functional stages (Challies & Murray, 2011). The chain's network structure depends on vertical and horizontal linkages and interactions (Trienekens, 2011). Vertically, it encompasses relationships bridging different actors in processes of product(s) and service(s) flow from primary producers to end-consumers. Horizontally, it involves...
TABLE 3 Conceptual elements for value chain analysis

| Element | Variables |
|---------|-----------|
| **Network structure** | |
| Actors and functions | Actors involved and activities they undertake for the flow of product: |
| | - Operators undertake basic functions and own product at one stage in the value chain |
| | - Supporters undertake general investments and preparatory activities benefiting operators |
| | - Influencers indirectly influence on the value chain functions |
| Market | - Existing market channels and corresponding products and their flows |
| | - Market options, demand and supply, standards and price and end-users’ needs |
| Primary production system | - Different production systems and their linkages with corresponding market channels |
| | - Primary producers’ relationships (or how they are organised/connected with each other) |
| | - Roles the poor undertake in the production systems and how the poor can be involved |
| Governance structure | - Quality-based rules or the ways quality is defined, measured and transmitted between different actors such as product prices, certificates and standards |
| | - Vertical coordination determining how transactions between firms are made |
| | - Horizontal coordination or ways of coordinating and organising actors and collective actions at the same segment (cooperative, producer association and producer groups) |
| | - Integrated vertical-horizontal coordination or joining of different actors in undertaking the same function of the chain that then acquire additional roles or functions in the chain |
| Enabling environment | - Essential enablers are political, institutional and infrastructural factors that make functioning of markets and enterprises possible |
| | - Important enablers are production-related environmental factors that the state can, and often does, provide, including financial and credit services, research and development, and production-and-business-related standards and regulations |
| | - Useful enablers are business-related environmental factors that are sufficient but not necessary conditions, including linkages, development services and ease of doing business |
| **Value added and upgrading opportunities** | |
| Value | - Quantitative value: product’s actual production cost and sale value at different segments |
| | - Qualitative business to business value: Technical value intrinsic to resources being provided and occurs in virtually all exchanges; organisational value being built upon the exchange context and derived from a range of ethics, prestige and reliability factors; personal value derived from subjective experiences and relationships involved in resource and benefit exchanges; and market value eroded from competitive forces and offers |
| | - Qualitative business to consumer values including product value derived from providing a source of supply; service value provided by services surrounding the product; and “wow” value gained from customer “successful” and creating product’s ethical and social values |
| Rents | Different upgrading opportunities: Technological rents (command over scarce technologies), resource rents (access to scarce natural resources), organisational rents (possessing superior forms of internal organisation), human resource rents (access to better skills than competitors), marketing rents (possessing better marketing capabilities and/or valuable brand names), relational rents (superior quality relationships with other actors in the chain), infrastructural rents (access to high quality infrastructural inputs), financial rents (access to finance on better terms than competitors), institutional rents (operating in an environment of efficient government compared to that of competitors) and trade rents (trade policies) |
| **Participatory possibilities for the poor** | |
| Possibility | - Direct participation undertaking a single function, and responding for multi-functions |
| | - Indirect participation including services that the poor can provide to the chain’s different operators and input materials that the poor can provide to different functions of the chain |
| | - Upgrading opportunities (rents) for each type of participation |
| Requirement | - Minimum asset and capability thresholds and for undertaking each possibility |
| | - Additional assets and capabilities for taking the rents |

Source: Porter (1985); Kaplinsky and Morris (2001); Grunert et al. (2005); Christy, Mabaya, Wilson, Mutambatsere and Mhlanga (2009); Challies and Murray (2011); Gereffi and Fernandez-Stark (2011); Trienekens (2011); Donovan et al. (2015); Gradin (2016).

relationships between actors in the same segment that are shaped by purchasing, production and delivery dependencies between parties, and that depend on how segment-based actors organised and/or connected with each other (Challies & Murray, 2011). The structure is largely shaped by markets that determine which products/services will be delivered to which market and the sustainability of supply (Narimissa, Kangarani-Farahani, & Molla-Alizadeh-Zavardehi, 2020). These, in turn, determine who can participate, and which types of relationship should be established (Donovan et al., 2015; Trienekens, 2011). Obtaining market information is essential for identifying market orientation (Grunert et al., 2005) and gaining market knowledge concerning the poor’s market access (Trienekens, 2011). The structure partly depends on diversity of production systems which target different local, domestic or global markets (Trienekens, 2011).
systems involve different types of primary producers and function independently although one system may use input from another system to balance the demand and supply. Understanding who are involved in each system, how these systems function and linkages between systems are important to identify the poor's position in the primary production segment.

Moreover, the structure is determined by powerful actor(s) in the chain who can decide how relationships should be established and which governance structure should be implied (Challies & Murray, 2011). Tackling such power relations needs identification of mechanisms by which actors involved, especially the poor, can gain and maintain their benefits. Value chain governance is “processes of organizing activities with the purpose of achieving a certain functional division of labour along the chain, resulting in specific allocations of resources and distributions of gains” (Ponte & Gibbon, 2005, p. 3) and “…exercising control along the chain through the specification of what type of product needs to be supplied, by whom, in what quantity and when, how it should be produced and at what price” (Bolwig et al., 2010, p. 176). The processes involve a plurality of actors and their actions to define terms and conditions for chain actors’ inclusion, exclusion, expulsion, value-adding activities and benefit attainment (Bolwig et al., 2010; Gibbon, Bair, & Ponte, 2008; Kaplinsky & Morris, 2001; Ponte & Gibbon, 2005). Value chain and its function are embedded in a web of networks and corresponding embeddedness environments (Mohan, 2016) that contain social, legal, political and economic institutions (Williamson, 2000) to form foundation for value chain governance. From this foundation, actors decide and define “rules and conditions of participation and behaviours” to develop the chain’s governance structure. Thus, the governance structure is a set of key operational mechanisms (Gibbon et al., 2008; Ponte & Gibbon, 2005), including external and internal rules (Keane, 2012; Mohan, 2016) and different forms of co-ordination translated from these rules (Bolwig et al., 2010). Understanding governance structure helps to identify who are dominant actors and what constraints exist when engaging the poor in the chain.

The structure is dynamically influenced by enabling environment wherein globalisation increasingly forms fine-meshed sourcing and global production and distribution networks. Meanwhile, international trade and food safety regulations drive national distribution systems and the development of legislation, capacities and horizontal networks to support the value chain actors (Trienekens, 2011). An enabling environment is defined as a set of policies, institutions, support services and other conditions that collectively create a business environment in which the chain functions and develops, influencing the chain actors’ ability to participate (Christy et al., 2009; Trienekens, 2011). Enabling environment analysis focuses on crucial factors such as legislation, public capacities and services and socio-cultural embeddedness that set boundaries to the value chain operation (Herman & Minh, 2020).

Analysing value addition and upgrading opportunities investigates value and rent structures of the chain’s capitalist processes through unfolding changes in the product value when flowing in the chain and opportunities for obtaining such changes. Analysing value addition captures both qualitative and quantitative aspects of product value as presented in Table 3. Porter (1985) defined value as the amount buyers are willing to pay for products that the chain provides. Thus, quantitative values reflect the product’s actual production cost and sales values when purchased by end-consumers. However, value has various aspects that might not be adequately captured quantitatively. For example, value is a subjective experience that is dependent on the context and that flows from the person/organisation that is the recipient of resources to another recipient. Value can be generated through two major exchanges: business to business and business to customers (Feller, Shunk, & Callarman, 2006). Value-addition is “…the process by which technology is combined with material and labour inputs, and then processed inputs are assembled, marketed and distributed” (Kogut, 1985, p. 15) and is created at every function throughout the chain (Trienekens, 2011). Thus, qualitative value helps to characterise types of value that are captured in the product at different functions.

Upgrading opportunities refers to diverse types of rent or advantages that the chain and its operators have and that can help them to obtain extra returns (Gereffi & Fernandez-Stark, 2011; Gradin, 2016; Kaplinsky & Morris, 2001). The returns can be obtained by upgrading which generally denotes a development path of an entire chain or/and its operator(s) in responding to opportunities to improve its/their position and level of value addition compared to competitors (Kaplinsky & Morris, 2001). The upgrading can be achieved with product, process, volume, functional, vertical coordination, horizontal coordination and intra- and inter-chain upgrading (Kaplinsky & Morris, 2001; Trienekens, 2011).

Identifying participatory possibilities for the poor is essential to understand the poor’s direct and/or indirect participation possibilities by which the poor can apply to increase income (see Table 3). The poor’s diverse livelihood assets and strategies often link with distinct functions or sets of functions and connect to different relationships or sets of relationships in a value chain. Moreover, mechanisms by which different actors gain, control and maintain flows and distribution of benefits can be unfolded. This, in turn, helps to understand the extent to which the poor can benefit from participating in the chain.

2.2.3 Step 3. Identifying value chain readiness of the poor

This step aims at incorporating poverty reduction into VCD through understanding whether poor households and their businesses are ready to participate. The poor’s value chain readiness analysis needs to connect the poverty situation and value chain analyses together. Table 4 presents a matrix to identify such connections.

The first row in the matrix places different participatory possibilities identified from value chain analysis. Based on outputs of Step 2, the minimum asset and capability thresholds required for undertaking each participatory possibility as well as rents and additional assets and capabilities for taking upgrading opportunities can be identified. Meanwhile, the first column of the matrix places diverse poor groups and their interests, assets and access strategies identified based on
the results from individual-household analysis in Step 1. Reflecting the specific participatory possibilities in the row with a specific poor group in column results in identification of (a) the participatory possibility that matches with the poor group’s assets and capabilities; (b) group who are ready to take rent/participate/take role(s) in the chain; (c) needs when pursuing the rents in corresponding with the possibility; and (d) the best options to help other poor groups who are not yet value chain ready.

### Table 4 Matrix for analysing value chain readiness of the poor

| Different participatory possibilities | Participation in a single function | Participation in multi-functions | Indirect participation |
|--------------------------------------|-----------------------------------|---------------------------------|------------------------|
| Different types of the poor           |                                    |                                 |                        |
| Chronic-poverty: Interests, assets and access strategies | • Minimum assets and capability threshold | • Readiness or non-readiness |                        |
|                                      | • Rents and assets and capabilities needed when taking the rents | • Missing assets and capabilities |                        |
| Churning-poverty                      |                                    |                                 |                        |
| Conjuncture-poverty                   |                                    |                                 |                        |
| Impoverishment-poverty                |                                    |                                 |                        |

2.2.4 | Step 4. Identifying the poor-centred VCD strategies

This last step aims at developing inclusive strategies for the poor-centred VCD. To do so, it starts with selecting participatory possibilities from the basis of the poor’s value chain readiness (Step 3) and the appropriate measures and indicators for evaluation of poverty reduction identified in the community-level analysis (Step 1). The selection requires identifying the trade-offs between income generation, food security, gender equity, sustainable natural resource management and overall livelihood resilience. Formulating intervention strategies for each selected possibility analyses the poor group’s strengths, weaknesses, opportunities and threats when undertaking the possibility. Intervention strategies include, but are not limited to, different types of upgrading presented in Step 2 for the poor group(s) who are ready, but also downgrading if it is more profitable for certain groups (Riisgaard et al., 2010) and non-value-chain-based supports (Stoian et al., 2012) to the poor group(s) who are not ready in order to create necessary preconditions for their participation.

Further, characterising and evaluating each strategy respects the expected changes in the poor groups’ pathway out of poverty (Step 1) and feasibility of the strategy implementation. Specific indicators for measuring the expected changes include stabilising income generation and asset accumulation, smoothing and expanding household livelihood assets and incomes, reducing household livelihood asset losses and obtaining high asset endowments and livelihood objectives (Fowler & Brand, 2011; Stoian et al., 2012; UNIDO, 2011). Analysing the strategy feasibility is carried out by the poor and other relevant stakeholders scoring each strategy based on its necessity and feasibility regarding resource availability, services and supports needed and risk when implementing. Comparison of different strategies’ score allows selecting of the “best” strategies to implement.

Finally, designing the selected strategies formulate goals and specific objectives for the expected changes, propose indicators for measuring performance and develop solutions for achieving the objectives. To ensure successful strategies, it is essential to review and incorporate the existing “best practices”. Implementing the strategies needs the supporting activities such as planning concrete actions, mobilising resources and relevant stakeholders’ participation and monitoring strategies’ impacts. Those actions require answering questions: What components are needed and will these be implemented? Who should implement what components and when? What resources and supports are needed and what are available? What potential barriers or resistance are expected and how can they be minimised? What monitoring and evaluation tools are needed for measuring impacts of the strategies?

The poor-centred VCD needs to be conducted in a way that allows the poor’s meaningful participation and their exit from poverty. Moreover, it requires strengthening innovative joint-learning among stakeholders and continuous improvements (Stoian et al., 2012) promoting synergies and multi-actor partnerships (Trienekens, 2011) and applying a clear impact pathway to enhance poverty impacts (Stoian et al., 2012).

### 3 | DISCUSSION AND CONCLUSION

Building on recent insights from studies about enhancing poverty impacts of the VCD (Bolwig et al., 2010; Challis & Murray, 2011; Devaux et al., 2018; Neilson & Shonk, 2014; Riisgaard et al., 2010; Schure et al., 2013; Stoian & Donovan, 2020), this article brought together poverty dynamism (Laderchi et al., 2003; Shaffer, 2008), livelihood framework (Chambers & Conway, 1992; Ellis, 2000) and value chain approaches (Donovan et al., 2015; Gereffi, 1994; Gereffi, Humphrey, & Sturgeon, 2005; Trienekens, 2011) into the poor-centred VCD framework. Like above studies, the framework proposes a way for poverty dynamism and livelihood concepts to complement the value chain approaches to tackle poverty reduction. The framework, however, differs from others in several standing points. First, the poor-centred VCD approach views poverty as a dynamic
situation (Shaffer, 2008; Shaffer, 2015) which is context-dependent and non-static. Second, it defines the poor as heterogeneous groups (Shaffer, 2008) with their diverse livelihood strategies (Donovan et al., 2017) and their various value chain readiness (Stoian et al., 2012). Third, it conceptualises the poverty-targeted interventions as holistic processes (Stoian et al., 2012) in which the poor are positioned at the centre. Finally, it proposes multidimensional changes (Barder, 2009; Fowler & Brand, 2011) for assessment of poverty impacts.

The poor-centred VCD framework proposes not only from the theoretical basis, but the integration of operational process. Theory-wide, the framework is conceptualized by three major sets of theoretical concepts. The poverty-related concepts include context-dependent poverty, poverty line, poverty flow and causation of the flow which are used to analyse the poverty dynamism. The livelihood-related concepts embrace assets, access, livelihood strategy and livelihood outcome that are used to capture the poor’s heterogeneity. The value-chain-related concepts comprise network structure, governance, value addition and upgrading that are used to investigate the chain’s capitalist processes and participatory possibilities for the poor. Operation-wide, the framework, first, outlines a four-step process of capturing poverty situation, analysing value chain, investigating the poor’s value chain readiness and developing interventions for poor-centred value chain for sustainable development. Second, it presents sets of conceptual elements for each step’s operationalisation. The framework shows that the poor’s central positions in VCD can be enhanced by identifying specific participatory possibilities for each poor group and developing concrete strategies for such possibilities from the basis of the poor’s readiness and/or non-readiness in operationalising the possibilities.

The proposed framework goes beyond presenting a checklist of analytical concepts for analysing how VCD can better target poverty reduction. By matching the poor’s interests, needs and livelihood conditions with minimum asset and capacity thresholds when participating in value chains. Such that, the poor-centred interventions can be developed in a way which allows different poor groups to manage the trade-offs for their meaningful participation. The poverty impacts can be achieved with positive or desirable changes regarding the poor’s pathway out of poverty.

Several limitations are however acknowledged for further considerations. First, the framework has not yet discussed the best way to deal with the poor’s non-linear endowment pathways by which assets building is followed by erosion or vice versa. Moreover, the framework has not yet discussed how to address issues that some asset-based and access-based indicators can work more efficiently and be more effective for the poverty reduction in a certain locality, but not in others. Consequently, the operationalisation of poverty impact assessment is somewhat limited to general indicators reflecting the poor’s pathway out of poverty. The application of the poor-centred value chain framework in the empirical contexts, therefore, is essential for further refining the non-linear endowment pathway in capturing the poor’s value chain readiness, conceptualising locally logical sequence of asset and access building in developing poor-centred interventions and specifying indicators for impact assessment.

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ORCID

Thai Thi Minh https://orcid.org/0000-0002-8345-6825

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