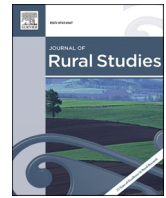


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How institutions governing the economic middle in food provisioning are reinforced: The case of an agri-food cluster in northern Uganda

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1. Introduction

Produce Lane, an urban agri-food cluster in the town Lira, northern Uganda, is the local name of the phenomenon central to this paper. Every day of the week, Produce Lane bustles with activities. It is the main node for wholesale of regional cash crops such as sunflower, soya and sesame and serves as retail outlet of major food crops such as maize and beans. It is a 200 meter long street containing 44 trade stores with a diverse group of almost one hundred traders and their support services. Traders at Produce Lane work under challenging circumstances such as insufficient infrastructure; unstable produce flows due to climate-led changes in rainfall patterns; and increasing competition with 'outside' traders. In addition, agriculture and society at large are still recovering from the twenty years long civil war between the Lord's Resistance Army (LRA) and government forces, which ended in 2006 (Enzama, 2015).

In this changeful and challenging context, Produce Lane offers an economic place to a large variety of actors and practices, and has been able to maintain a physical and organizational infrastructure for trading food for twenty years. Farmers, traders and other buyers consistently choose it as a site to do business. Produce Lane is consolidated in the everyday and multiple interactions with smallholder farmers seeking outlet markets, local consumers buying food, and larger traders and processors looking for raw materials. Although initially it seems chaotic, the variety of practices visible in Produce Lane appears to be highly organized. It discloses a degree of rigidity, while its dynamic context also necessitates a certain degree of flexibility, improvisation and adaption. How and why remains such a diverse cluster of situated trading practices intact? We are interested to understand through which processes this ensemble of actors and their trading practices consolidate the institutions governing an urban agri-food cluster.

To research how institutions governing food access are consolidated and carried forward, we combine an institutional lens with the study of practices of conduction (Legun and Bell, 2016). Legun and Bell (2016) offer the concept 'conductors' to categorize the economic actors at

Produce Lane and focus on the usually messy though self-organized practices of conduction. Conduction includes practices such as sourcing, transporting, warehousing, retailing and trading. Our study develops an institutional perspective on how processes of conduction constantly self-reinforce an (in)formal institutional infrastructure in its social and material environment, and resultantly consolidate an agri-food cluster. In short, the central question is how a market institution, such as Produce Lane, persists in a changing environment (Greif and Laitin, 2004). We relate the capability of Produce Lane to persist, or sustain itself, to processes of self-reinforcement and consolidation and use the notion of 'institutional viability', which reflects 'the capability of a set of empirical institutions, for being sustained within their environment, despite a wide range of external pressures and internal tensions' (6, 2003, p. 398). Similarly, Greif and Laitin (2004) offer the notion of self-enforcing institutions, which accounts for endogenous stability of institutions. Looking at trade as an evolving configuration (Kingston and Caballero, 2009) recognizes that institutions spontaneously emerge and evolve due to both endogenous process or exogenous shocks.

To study empirically how the performance of everyday activities in food trading reinforces the institutions of a market place, we use a practice approach (Nicolini, 2012). The practices in our study are forms of action particularly related to bringing and assembling food to a place, such as sourcing, transporting, warehousing, retailing and trading. The analysis of practices in a specific context enables us to discover how self-organized arrangements consolidate expectations of actors internal and external to the agri-food cluster. It also reveals how durable relations are endorsed among economic actors either assembled in the same place, or spatially connected to this place. In combining our institutional analysis with a practice approach, we aim to unite rigidity and agency in market institutions of food provisioning.

We make an empirical contribution to the growing interest in understanding the economic middle of food provisioning (Legun and Bell, 2016); as Produce Lane fulfils an important brokering role between producers and consumers. This interest in the so-called 'hidden middle'

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– hidden partly because of scholarly interest in either producers or consumers of food at the extreme ends of the agri-food chain - emphasizes the contributions of intermediary actors, such as wholesalers, processors and logistical service providers, to food provisioning. It also confirms the vital role intermediary actors play within rural markets in the specific circumstances we study, i.e. rural Uganda, such as uneven quality of produce, fluctuating prices, and poor infrastructure (Abebe et al., 2016; Reardon, 2015; Sitko and Jayne, 2014). Markets under these circumstances are largely informally organized; our study also makes an empirical contribution to understanding and appreciating informal sector relations and institutions (e.g. Harris, 2016; Kinyanjui, 2010).

Our research complements two strands of literature that primarily analyse outcomes to explain the persistence of food cluster in a rural development setting: the economic benefits of network relationships (Fafchamps, 2001); and the advantages of collective efficiency (Gebreyesus and Mohnen, 2013; McCormick, 1999). The importance of networks for economic action has been recognized for decades (Coleman, 1988; Granovetter, 1973), and research on the organization of market transactions of traders often focuses on their networks (e.g. Fafchamps and Minten, 1999, (Fafchamps and Minten, 2001); Rousseau et al., 2015; Walther, 2015). Social capital and stable relationships create trust, facilitate coordinated actions (Coleman, 1988), decrease transaction costs for receiving credit (Fafchamps and Minten, 1999), lead to larger sales and valued added for well-connected traders, and reduce risks of breach of contract (Fafchamps and Minten, 2001). Achieving collective efficiency is seen as a combination of unintended or incidental by-products of joint economic activity in clusters. This level of efficiency can rarely be attained by individual actors (Rogerson, 2001). Collective efficiency may be enhanced by the heterogeneity of firms and actors (Gebreyesus and Mohnen, 2013) and has potential to increase market access and stimulate information sharing (Dijk and Sverrisson, 2003).

This literature considers outcomes as incentives for economic actors to collaborate within a physical architecture and in each other's vicinity, and to jointly organize market transactions with some degree of coordination. However, there is less attention for how a cluster reinforces itself as a collectively organized and widely recognized way of trading, and how it reproduces collective outcomes. Our study emphasizes the presence of distinct types of actors and, more importantly, their interdependencies for the everyday performance of the cluster. We therefore shift attention to understanding the ways in which these actors and their business practices are intertwined and bonded within and across place (Lauermann, 2013) and, subsequently, how an economic-spatial configuration of processes consolidates Produce Lane as an institutionally viable economic space (Jones and Murphy, 2010). Detecting these processes explains the collectively performed and the widely recognized way of trading in the middle of food provisioning.

The paper is structured as follows. Section 2 outlines the theoretical framework used to identify processes underlying the institutional viability of an agri-food cluster. We reconcile Greif's notion of self-reinforcement in the institutional analysis of trade with our methodological choice to study practices. Section 3 introduces the research area and the agri-food cluster, explains how we operationalize trade practices as 'organizing stable produce and finance flows', and outlines the qualitative and quantitative methods used for investigating daily practices of conduction. Section 4 presents a descriptive account of how the group of intermediary actors assembled in Produce Lane manages produce and finance flows in the everyday trade of agricultural produce; and which rules and routines appeared important for managing produce and finance flows. Section 5 discusses that Produce Lane creates space for individual conducers to do their businesses, while the trade practices studied are collaborative, coordinated and regulated. These features set the stage for detecting the institutional properties of Produce Lane as-a-whole that explains its viability. In the final section 6, we draw conceptual and methodological conclusions based on the analysis of

conducers organizing food access in a rural development setting.

2. Theory: a practice-based analysis of self-reinforcing market institutions

We combine an institutional lens with researching everyday practices of conduction as the sites where institutions are reproduced, modified and consolidated. Greif's perspective on institutions, based on theorizing trade, gives space for the dynamics of market places and the agency of economic actors expressed in the practices of conduction. Greif (2006, p. 30) conceptualizes an institution as 'a system of social factors (rules, beliefs, norms and organizations) that conjointly generate a regularity of behaviour. Together these components motivate, enable and guide individuals to follow one behaviour among the many that are technologically feasible in social situations'. Greif considers that individuals on the one hand shape rules, beliefs, norms and organizations, and on the other hand need to be motivated to follow institutions.

In other words, institutions can be open to modification, and exist only to the extent that they are carried forward by integrated and standardized behaviour of individual actors (Scott, 1995). Reinforcing Produce Lane as an institution occurs when wholesalers and retailers inside, and traders, farmers and other actors outside Produce Lane consider modes of trading and doing business to represent a continuity of the same set of institutions (6, 2003). If this is no longer the case - i.e. if individuals act in a manner that does not reproduce associated rules, beliefs, norms and organizations - an institution is being self-undermined and might change (Greif and Laitin, 2004). Accordingly, the work of Falkowski et al. (Falkowski et al., 2017) on collective action suggests that individual economic actors are more inclined to participate in some form of collective performance, such as conduction, if they expect others to perform similarly and that performing practices collaboratively and interactively will be mutually beneficial.

Additionally, Greif emphasizes that institutions should be technically feasible in specific social contexts. In line with Djanibekov et al. (Djanibekov et al., 2013), we understand the category of conducers as 'searchers' using and possibly modifying existing institutional arrangements. They are capable of navigating whimsical conditions in the market place as well as fluctuations in readily available produce in the producer catchment areas (Roba et al., 2017). Consequently, and like Djanibekov et al. (2013), our interest in food provisioning recognizes the importance of the natural environment (e.g. seasonality), the materiality of food (e.g. storage and volumes), and physical (e.g. roads and distances) and logistical infrastructures (e.g. transportation from local buying agents) for analysing how institutions emerge from evolutionary processes (Greif and Laitin, 2004; Meador and Skerratt, 2017). For a dynamic understanding of how institutions are consolidated, we analyse how an organizational configuration of actors and evolving practices, such as Produce Lane, emerges from and responds to not only its economic or social context but also to its material environment (Schatzki, 2005). Contextualized diagnostics of institutions, as proposed by Schouten et al. (2018), analyses institutions both in terms of their rule setting nature in food provisioning, as well as their persistent and slow to change characteristics. Correspondingly, we set out to identify processes of self-reinforcement of the viable institutions in a specific market place and analyse this as the emergent outcome of interdependent and mutually constituting practices.

We consider social-material practices of conduction as analytical 'objects' whose study can demonstrate how institutions are enacted, consolidated and/or transformed through the everyday actions embedded within them (Jones and Murphy, 2010; Mangnus and Vellema, 2019). This practice-oriented approach offers methodological guidance for an analysis of the constant interaction between actor and structure: 'an institution is sometimes a structure beyond the control of individuals whose behaviour it influences, and at other times it is an outcome reflecting their actions' (Greif, 2006, p. 41). In the variety of practices of conduction in Produce Lane, economic actors in the middle

of food provisioning reveal the collective capability to cope with external influences, handle internal tensions and in so doing sustain a set of empirical institutions.

Therefore, this research builds on the methodological project of practice-based approaches (Nicolini et al., 2017), which aligns with debates in different scholarly fields. In a contribution to economic geography, Jones and Murphy (2010) propose to investigate how a set of stabilized, routinized, or improvised practices consolidates an economic space. Interpreting everyday practices helps to understand how institutions in the middle of real food markets remain stable (Lauermann, 2013). In organization sciences, Nicolini (2012) argues that practices generate and reinforce institutions over time; studying practices will therefore give us insights in processes of self-reinforcement of a market institution underlying food provisioning and a trading system. Practices are meaning-making, identify-forming, and order-producing activities. They institutionalize activities and ways of doing through repetition: repeating practices furnish institutions, in order to become durable (Nicolini, 2012, p. 7). This is not mindless repetition; it also includes improvisation and interpretation.

A similar direction is suggested in the methodological contribution by Jansen and Vellema (2011) to performance-oriented technology studies, highlighting the use of skills, tools, techniques and know-how to accomplish a practical end, such as trading produce, and revealing how the performance of a set of related and sequential tasks is influenced by rules associated with specialization and divisions of labour in society. This perspective from technology studies is also reflected in the work by Arts et al. (2013, p. 9), who describe a practice as not just one activity, but as an ensemble, or a complex whole composed of smaller elements. Task performance implies stability and continuity, as well as creativity and improvisation to deal with emergent problems or changes (Barber et al., 2007). Contexts in which practices of conduction are situated (Gherardi, 2012) shape the need to improvise, or, if external pressures are becoming very strong, the need to alter institutions. Performing a practice implies stability and continuity, as well as creativity and improvisation to deal with emergent problems or changes (Barber et al., 2007). Analogously, Suchman's (1987) notion of 'situated action' relates structures of action to resources and constraints afforded by material and social circumstances.

Practices have a subject (or actor), object, and outcome; performing a practice transforms an object into an outcome (Nicolini, 2012). We characterized the outcome of Produce Lane as organizing consistent flows of produce (object) and finance (a condition for obtaining produce) by conductors (subjects) – i.e. traders, wholesalers, retailers, and service providers – in a catchment area (Abebe et al., 2016; Legun and Bell, 2016; Roba et al., 2017). We determined the following daily activities through which the outcome is achieved: (i) sourcing and selling of produce, and (ii) accessing finance and distributing money. *Sourcing* is the first step in bulking, so that there is actual produce to sell. Produce is bought from farmers or traders outside Produce Lane, or from traders at Produce Lane. *Selling* produce includes finding end-markets for produce, market assessment and pricing of produce. This also includes quality and quantity assessment of produce. *Accessing finance* includes organizing access to several sources of money. *Money is distributed* to rural markets to buy produce from farmers, often through intermediaries.

These practices are embedded in the agri-food cluster central to this case study. Produce Lane has existed for some 20 years, despite external pressures such as violent conflict, changing climate, and increasing competition; and has responded to opportunities such as an increase in sunflower and soya production. Produce Lane attracted a variety of actors making a living in trading, and it is a source of employment and income for youngsters and women doing jobs related to trading. Produce Lane is a place known and recognized by farmers seeking a place to sell their produce, and external buyers looking for produce. Despite its mixture of actors, Produce Lane has been able to keep itself intact while being confronted with pressure from government and the competitive field of food trade. Hence, we investigate how the way of doing trade is

continuously reproduced in the daily performance of practices of conduction assembled in Produce Lane.

3. Material and methods

Produce Lane, the agri-food cluster, accommodates around one hundred traders in the northern Ugandan town Lira. In this area, the population living below the poverty line of one USD/day is 43.7%, lagging behind the 25.8% national average (MoFPED, 2014). This is mainly a result of the twenty-year civil war between the Lord's Resistance Army (LRA) and government forces, lasting until 2006. In districts affected by the war, including several districts bordering Lira, agricultural production came to a near halt and population depended entirely on external agencies for food, health, and water. Since the end of the war in 2006, much support has been given by development organizations and the public Vegetable Oil Development Program (VODP) to recover production of main cash crops in the region, such as oilseeds (sunflower, sesame and soya). In addition, sunflower production has been promoted by Mukwano, one of Uganda's main processors and trading companies, which started an outgrower scheme with farmers, located around Lira, receiving improved sunflower varieties to substitute import of palm oil due to high world market prices. In 2007, the company installed a sunflower processing plant in the area (Gildemacher et al., 2015). Since 2012, Mukwano started buying soya, to stimulate intercropping. All these investments led to a strong increase in oilseeds production and attracted smaller processors and one larger competitor, Mt Meru. Traded volumes increased in Produce Lane in recent years; it represents a strong example of a viable cluster of economic actors and practices of conduction in the middle of the food provisioning system.

The 200 m of Produce Lane contain 20 buildings and 44 stores used for trade (Fig. 1). We identify three types of traders (Table 1): *Retailers*, who only sell produce in small quantities to consumers, form the largest population at Produce Lane with 51 traders, and are mostly female (94%). Most retailers share stores with other retailers, or that of their husband's, which in that case is a wholesaler (see Fig. 1). *Retail and wholesale (R&W)* are a diverse group combining wholesale and retail. *Wholesalers* are solely involved in wholesale. R&W and wholesalers are quite similar in terms of age, education, number of years at Produce Lane, and average number of people in one store (Table 1). However, rent of R&W's storage space is slightly lower (an average difference of 16 USD) and their store capacity is like that of retailers. Both variables indicate that their business size is smaller than that of wholesalers. Remarkably, most traders involved in R&W are women (92.3%). The street is also spatially organized by these categories: retailers are located at the two ends of the street, and in the middle; the largest wholesalers are located at the South end of the street; whereas smaller wholesalers and R&W are mostly located at the North end of the street (Fig. 1).

Unskilled laborers support all traders in the cluster. *Porters*, always men, carry heavy bags with up to 120 kg produce. They load and off-load trucks, and carry bags of retailers outside in the morning, and inside again in the evening. Their payment is per bag, and the rate depends on the weight of the bag. *Cleaners*, always women, clean produce from dirt, such as sand or charcoal, which is skilful and laborious work. They are paid per bag, and their rates depend on the type of dirt.

Access to the cluster originated from earlier action-oriented research in the oilseed and edible oil subsector in Uganda (references to 5 studies left out, because of revealing personal details. Add in final version). Data was collected during two field periods: November 2014 to April 2015; and November 2015 to February 2016. In most interviews, a research assistant was used to guide translation and interpretation of questions between the local language, Leb-Lango, and English. We used several methods for obtaining an in-depth and nuanced understanding of trade practices at Produce Lane: a survey on store level including 38 stores; 21 in-depth interviews with selected traders; participant observations; as well as secondary data on changes in the oilseed sector over the last 20 years. Trade practices central to the case study were identified after

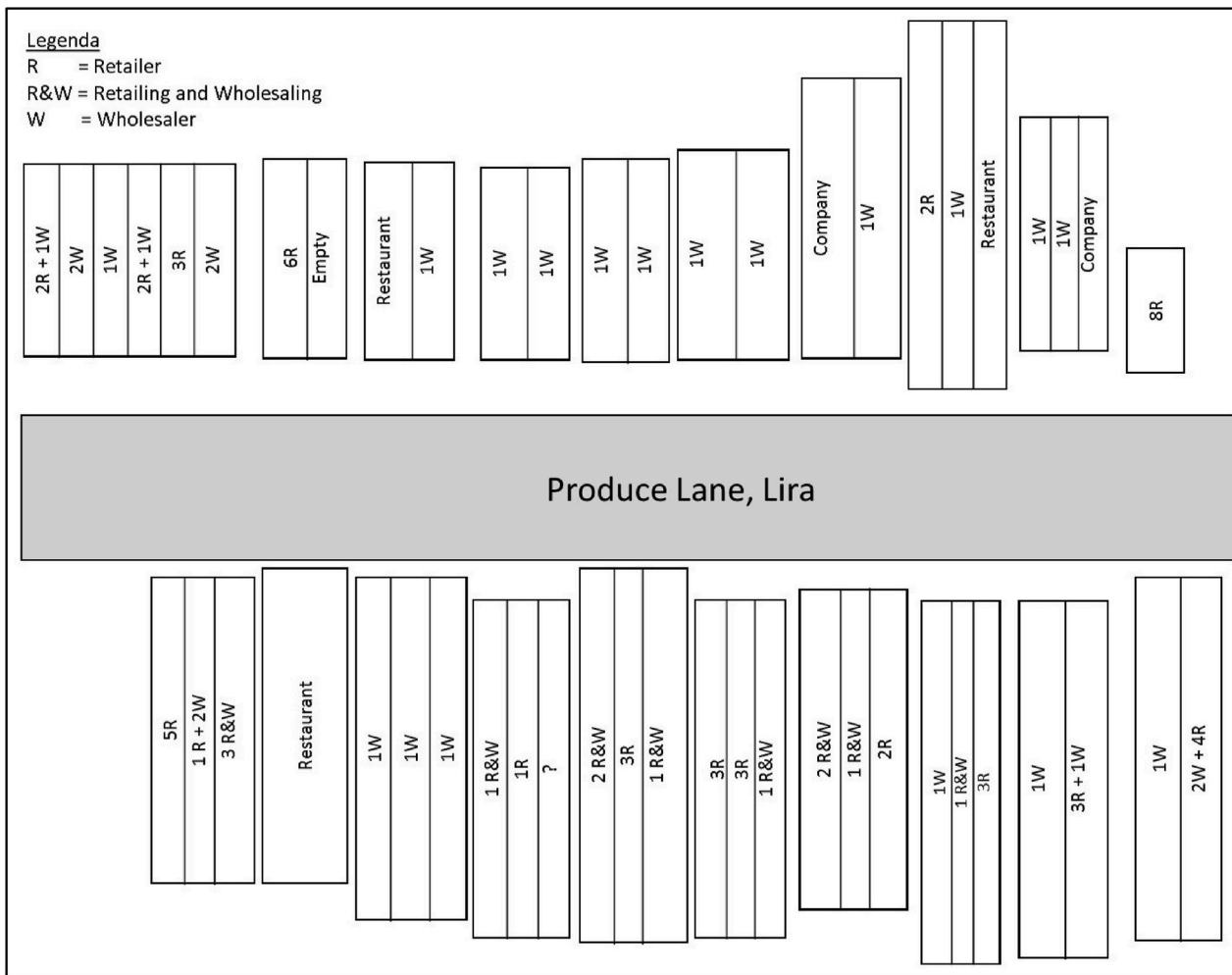


Fig. 1. Map of stores at produce lane street, Lira, northern Uganda. Source: Legenda based on own fieldwork November 2014–April 2015. Map based on Google (n.d.). Retrieved June 10th, 2016, from <https://goo.gl/maps/iJuXT7X8Ym6FEMu96>.

Table 1
Basic descriptives of three types of traders at produce lane.

Variables	Retail	Retail & Wholesale	Wholesale
Total number	51	12	29
Gender (% male)	6.0%	7.7%	76.0%
Age ^a	38.64 (11.91)	43.13 (7.30)	43.92 (10.09)
Education (in years) ^a	8.67 (3.93)	9.46 (3.78)	8.75 (2.61)
No of years on produce lane ^a	4.33 (2.60)	11.00 (5.89)	12.06 (5.95)
No of people in one store ^a	3.83 (1.70)	1.56 (0.73)	1.71 (1.12)
Average rent pp/month (USD) ^a	25.74 (12.52)	62.56 (25.14)	78.63 (41.04)
Capacity of store (tons)	34.00 (29.84)	32.46 (26.20)	47.00 (43.09)
Average capacity pp (tons)	8.62 (4.45)	29.06 (28.50)	42.18 (45.82)

^a Mean (standard deviation between brackets).
Source: survey and interviews November 2014–April 2015

exploratory fieldwork (observations and interviews) between November 2014 and January 2015 – e.g. sourcing, selling, accessing finance and distributing money.

We used a structured questionnaire (Russell, 2006) at store level to get an overview of types of traders present at Produce Lane. This included topics such as the number of traders per store, their age, and

rent paid per store. The store level survey included 38 of 44 stores.¹ While conducting the survey, we also used open questions concerning the four trade practices. This gave us a rich overview of how practices were conducted by the several types of traders. A total of 21 in-depth interviews (Russell, 2006) about trade practices were held with a selection of all three types of traders, and were done by asking for concrete examples of performance. For instance, if a store was full of produce, we would ask when that produce was brought there, where it came from, how transport was organized, etc. All survey and interview data were collected at Produce Lane during day time, when traders were ‘performing trade’. We observed in detail actions such as (produce and money) transfers, quality checks, the use of notebooks, and the use of support services. While observing these practices, informal interviews with traders offered insights in the nitty-gritty details of their performance.

The survey at store level generated descriptives (Table 1) to distinguish between the three types of traders. Interviews and participant observation data were analysed using Atlas.ti. A coding scheme was made based on our theoretical framework as well as exploratory

¹ We did not reach a complete sample, as some traders refused to cooperate.

fieldwork, and included code categories for sourcing, selling, accessing finance and distributing money.² Detailed analysis of the results of coding led to a so-called ‘thick description’ (Geertz, 1973) of the trading practices assembled in Produce Lane. Coding, summarizing and analysing data gave first insights in issues around (informal) rules and routines consolidating produce lane. A second round of coding focused on these rules and routines.³

4. Results: Practices of conduction: organizing produce and finance flows

This section presents descriptive accounts of two sets of practices organizing produce and finance flows, which are central to everyday trade at Produce Lane. It focuses on how *produce* is sourced and sold, and how *finance* is accessed and distributed to put into use for trading. We start each set with presenting the practices of wholesalers, as they deal with the largest share of produce and finance flows. This is followed by describing the activities of retailers and R&W, which both relate and are complementary to those of wholesalers. Second, we describe how tasks and practices are distributed within and between groups and identify various forms of coordination *consolidating* produce and finance flows. Fig. 2 gives a schematic overview of this configuration of produce and finance flows to, from and within Produce Lane. The final section examines the (in)formal rules and routines regulating, and further consolidating, Produce Lane as a site for organizing trade.

4.1. Organizing produce flows

4.1.1. Sourcing produce

For all wholesalers, the most important channel for getting produce was through their agents. These are intermediary traders with a store in rural communities receiving large sums of money from wholesalers to buy produce for them on commission. A wholesaler had on average 12 agents, and advance money ranging from 1350 to 7540 USD (source: survey data). Advances could be given out several times a month, depending on the moment in the buying season. For example, one of the largest wholesalers at Produce Lane had 14 agents and described their relationship as follows: ‘I give them deposits, my vehicles to use, or money to hire a vehicle. After buying we will settle the balance’ (Interview 2015/01/22). Agents were entrusted with large sums of money. Wholesalers therefore built relationships with agents gradually and started working with agents on average 10 years ago. Building relationships started by first testing agents with smaller amounts, to examine how much they could handle.

Agents represented wholesalers in the village, which was strengthened by using means of transport. The larger wholesaler owned three trucks, with an average capacity of 20 tons, and employed three truck drivers. He bought the first truck in 2008, and paid on average 15,000 USD per truck, for which he used a bank loan. A truck was a large investment; only half of the wholesalers surveyed owned a truck. However, as this wholesaler explained, owning a truck gave a wholesaler flexibility to buy produce whenever and wherever he wants. Additionally, it was a way of transferring money to agents or searching for new agents.

Agents were not the only locally embedded actors through which

² Codes used were the following: *Sourcing* included agents, buying produce, competition, transport. *Selling* included millers, Mukwano, consumers. *Accessing finance* included advance payments, agents, cheating, financing the business, working capital, other income, stocking produce, storage. *Distributing money* included advance payments and cheating. Lastly, we used several cross-cutting codes: challenges, (starting) trade relationships, family, and support services.

³ *Rules and routines* included the following codes: seasonality of trade, quality, setting prices, characteristics of crops, specialization, improvisation, and accessing Produce Lane.

wholesalers sourced their produce. Two-thirds of the wholesalers worked with other intermediary traders. This was more on an ad-hoc basis and without advanced payments. Intermediary traders or farmers also came directly to Produce Lane to market their produce or connect to wholesalers. One wholesaler explained that a friend connected him to an intermediary trader, who wanted to sell 20 tons of beans, and 20 tons of maize, and they agreed that he could bring the produce that afternoon (Interview 2015/11/10).

Retailers and R&W traders had substantially smaller capacity than wholesalers: in terms of storage available per trader, R&W’s storage capacity was 60% compared to that of a wholesaler’s average storage capacity, and retailers’ storage capacity compared to 20% (Table 1).⁴ This had consequences for how they sourced produce. R&W traders mentioned the use of agents, only their number was lower, two to five agents per R&W trader. They did not necessarily advance money, but their agents communicated when they had produce to sell. Then, an R&W trader hired a truck to pick up the produce, as none of them reported owning means of transport. Retailers did not work with agents at all.

Retailers and R&W traders used an outlet not mentioned by wholesalers: they bought produce at rural markets, where farmers sold their produce, mainly food crops. Traders went there themselves, or they were represented by relatives or friends. In the latter case, they provided the representative with money, which were amounts around 90 to 150 USD, including commission and transport refund.

4.1.2. Selling produce

Wholesalers sold produce using several channels. Sunflower and soya had a clear local market with smaller millers or large processing factories of Mt. Meru and Mukwano in town. A wholesaler explained that ‘the factories [of Mukwano and Mt Meru] are an advantage, they provide steady markets ... and they brought the market nearer’ (Interview 2015/04/14). At the same time, wholesalers complained: they had to compete with agents of Mukwano and Mt. Meru in the villages; and their trade depended on the quantity of seeds Mukwano distributed to farmers at the beginning of the season. Other outlets were large buyers coming from the capital, Kampala, or neighbouring countries, who had connections with wholesalers at Produce Lane, especially for buying soya and sesame. Being present at Produce Lane enabled establishing these relationships. Several wholesalers mentioned their connections to buyers from Kampala, who passed by their store at Produce Lane.

As with buying, selling also happened on an ad hoc basis. One morning, we observed that traders from Jinja were referred to a wholesaler’s store for maize. The traders agreed to collect it later that day, but to secure the produce, they already gave the wholesaler a deposit (personal observation, 2015/02/26).

Retailers mostly sold their produce in small amounts to local customers for home consumption. Occasionally, they sold one bag of produce, labelling that as ‘wholesale’. R&W traders used retail as well but had a more significant share of wholesale. Compared to wholesalers, only a few of R&W mentioned having established relationships with buyers; wholesale was done ad-hoc.

Organizing produce flows involved a range of actors and connected different practices. Table 2 summarizes the practices of sourcing and selling produce. Wholesalers were the lead actors in Produce Lane, responsible for sourcing and selling the bulk of produce through carefully built relationships with agents (sourcing) and large buyers (selling). These relationships are determined by trust, which can be labelled as ‘sunk transaction cost’ (Fafchamps and Minten, 2001; Lyon, 2003): once incurred, it is in the interest of both parties to continue trading with each other because existing relationships reduce search and

⁴ We chose to compare the size of a business based on storage capacity and not throughput of volumes, as this was difficult to recall for retailers (who only sell small amounts).

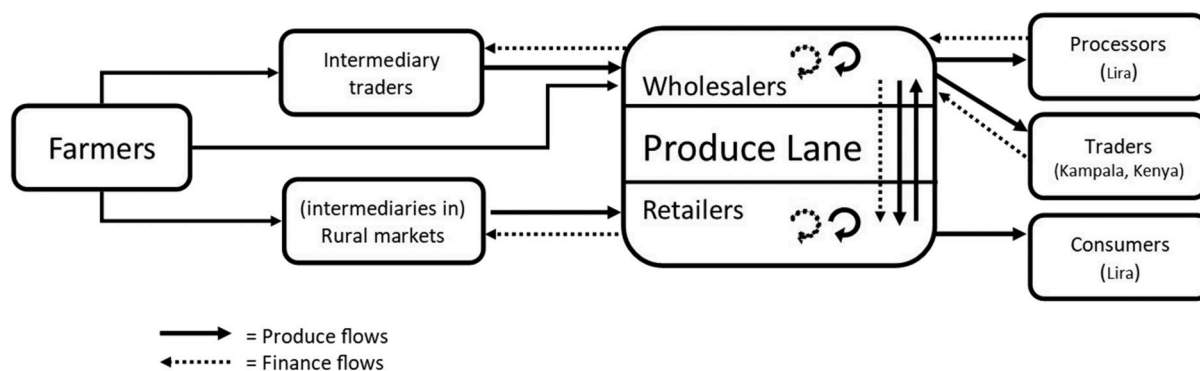


Fig. 2. Overview of produce and finance flows to and from produce lane traders.

Source: based on own fieldwork November 2014–April 2015. Note: for the sake of overview, R&W traders are left out; the flows they use overlap with wholesalers and retailers.

Table 2
Practices of organizing produce flows in Produce Lane.

	Wholesale N = 25	Retail & Wholesale N = 13	Retail N = 50
Aspects of sourcing			
<i>Use of agents</i>	Yes, long-term relations with traders including advance money	Yes, traders, sometimes advance money	No; but use of friends and family to buy in outside markets
<i>Use of trucks</i>	Owned and rented	Jointly rented	No
<i>Other sourcing channels</i>	Ad-hoc transfers	Ad-hoc transfers Outside markets	Outside markets
Aspects of selling			
<i>Buyers</i>	Large factories in Lira Buyers from outside the region Ad-hoc wholesale	Ad-hoc wholesale Local consumers	Ad-hoc wholesale Local consumers

Source: interviews November 2014–April 2015.

transaction costs. Wholesalers also developed skills to manage their businesses and invested carefully in tools such as means of transport. In addition, their capacity to link their individual businesses to national and export markets stimulated the growth of the cluster (cf. Nadvi, 1999).

Retailers and R&W often lacked skills and (human and financial) capital to handle large volumes of produce, to invest in necessary tools such as transport, and to rent sufficient storage space. On the other hand, they were inventive to source in a way that fits their capacity: from rural markets, and in cooperation with others. And they maintained another important outlet of Produce Lane: local food retail. The combination of these distributed practices and collaborative processes consolidates Produce Lane as an entity functional to trade.

4.1.3. Consolidating produce flows at produce lane

Wholesalers did not mention cooperation with other wholesalers in the sourcing of produce, as they each have their own network of agents. Occasionally, they transported produce together with other wholesalers and shared the costs for fuel and truck rent. This cooperation was frequently mentioned by R&W traders; renting a truck together was a major option for organizing transport. Retailers were not able to hire transport.

Produce was also sourced at Produce Lane itself, through vertical linkages. Wholesalers (82%) passed by several stores of traders (both wholesalers and smaller traders) to buy produce, which had the advantage of sourcing one specific product easily. Prices in Lira were slightly higher than prices in the village.⁵ On the other hand, transport costs were absent. Retailers also made use of buying produce at Produce Lane, for similar reasons.

Concerning sales of produce, wholesalers cooperated both within their group of wholesalers, and outside the group of wholesalers, with R&W and retailers. The truck capacity of buyers coming from afar was often such that one wholesaler could not fill it by himself; 90% of the wholesalers mentioned that they referred buyers to (all types of) other traders. One wholesaler emphasized that ‘filling trucks together’ is very important. ‘If you do not have enough [yourself], you can refer a buyer to someone else’ (Interview 2015/04/10). We observed that R&W traders and retailers did some wholesale in this way. Some wholesalers gave examples of working together more structurally. ‘During the season for beans, we send a truck to Kampala every week, we combine with two or three friends at this corner. Each gives 25 tons’ (Interview 2015/02/26).

Retailers cooperated and helped each other out with customers. We observed that a customer wanted to buy a larger quantity of groundnuts than the retailer had available. She then asked her neighbour to provide the rest of the groundnuts, and the money was divided between them. Another retailer mentioned that if she must run some errands for a few hours, other retailers would take care of her produce and sell it for her.

A last linkage between wholesalers and retailers in handling produce was that everyone used porters. Wholesalers paid them to load and unload their trucks, whereas retailers needed porters to carry bags with produce outside every morning, and inside every evening, as retailers sat in front of their stores behind these bags, thus displaying what they had on sale.

This pallet of collaborative processes ‘smoothing trade’ contributes to the consolidation of Produce Lane. All types of traders sourced produce from Produce Lane itself, and smaller traders helped to complete sales of wholesalers and their buyers by filling trucks together. The web of distributed tasks stabilized produce flows coming to and moving out of Produce Lane. Collaborative networks thus coagulate within the cluster (Dijk and Sverrisson, 2003), and affect individual as well as collective opportunities (Meagher, 2006). Moreover, we found tasks distributed beyond the boundaries of the cluster, exemplified by wholesalers using agents for sourcing produce in remote rural communities, or retailers and smaller wholesalers (R&W) sending friends and relatives to rural markets for purchasing produce.

⁵ We calculated the following margins between farmgate price and buying prices at Produce Lane (in USD/kg): 0.04 for sunflower, 0.06 for soya, and 0.07 for sesame.

Next, the paper describes the practices for organizing finance, which are of a different nature but equally generate conditions for consolidating Produce Lane.

4.2. Organizing finance flows

4.2.1. Accessing finance

Trading requires working capital to source produce and ensure payment of suppliers. Wholesalers accessed several sources of working capital: advanced payments from larger buyers, loans from other wholesalers, incomes from their own farmland, bank loans, and produce in stock. These sources had various functions, discussed in detail below: as starting capital at the beginning of the season, to smoothen transactions throughout the season, and to invest.

Half of the wholesalers (53%) maintained relationships with large buyers and received advances from them. One wholesaler received advance money from Mt. Meru a few times per season, to buy sunflower. These were amounts between 14,000 and 25,000 USD. He appreciated the large sums of money but mentioned that it can also be a disadvantage: *'you are tight to the company giving you advance and cannot sell their produce off to someone else [offering a better price]!' (Interview 2015/02/20)*. Interestingly, a few days later he explained that he did not always use Mt. Meru's money directly for sunflower. He sometimes used part of it to buy something else first, and later bought sunflower with profits from earlier sales. Another wholesaler explained that relationships with buyers were built similarly to the way wholesalers relationships with agents were maintained: *'they would pass by here. They first give me little money and start putting trust in me. Nowadays, they just call me, and transfer money to my account, they don't even come to give the money!' (Interview 2015/04/10)*.

A consequence of wholesalers having the strongest relationships with buyers coming to Produce Lane, and thus with outside markets, is that they influence price setting. At the beginning of the second season, 2015, several wholesalers explained that they were not buying yet because their buyers had not yet given out their prices. Once they do so, the market is open.

Wholesalers could speculate with stocking produce at the end of the season, so to sell it off with a larger profit and to have starting capital for next season. One wholesaler was stocking his soya while awaiting higher prices – he bought soya for 0.46 USD/kg, the current price had increased to 0.53. He hoped prices would reach 0.61 cents. He explained that this is a meticulous process: *'it is the only way to make big margins, but it needs proper planning for a good price' (Interview 2015/04/14)*. He explained that this profit helped him to reserve money for the next season. Another important source of starting capital was income of sales from their own cultivated crops. Most wholesalers owned farmland. They supervised farm laborers and were able to trade the whole year round. Lastly, some wholesalers mentioned getting a bank loan as a source of starting capital, although more often, bank loans were used for large investments such as storage space or a truck. A risk with getting a loan was however how to repay it. Wholesalers gave examples of traders who could barely repay their loans and had to forfeit their businesses.

Retailers had less sources of finance available than wholesalers. For instance, they could not stock produce, which required sufficient financial means. The difference in financial means became apparent when we investigated how retailers and wholesalers started trading. Wholesalers first gained a considerable amount of starting capital (on average 7500 USD) from, for instance, farming, or another business, and then started wholesaling. Retailers, on the other hand, started retailing because they did not see other options, as one retailer explained: *'I do not have a farm, so this is the only thing I can do. I didn't finish secondary school, but you cannot sit and wait for money. That's why I started trading' (Interview 2015/02/10)*. Still, they needed some starting capital to buy their first produce, gained, for instance, from trading other products, or selling livestock. The financial capacity of wholesalers was an assurance for retailers and R&W as well: in the low season, they approached

wholesalers for advance money. Another way of assuring stable finances for all traders, was borrowing small amounts of money from other traders at Produce Lane. This only occurred reported within the own group of traders, as it needed higher levels of trust.

4.2.2. Distributing money

Ensure that available finance is used for purchasing produce is crucial for trade. Advancing money for buying produce determined relationships between wholesalers and agents. Wholesalers described how their business depended strongly on agents, due to growing competition for produce in the last five to ten years. Consequently, the risk of an agent returning advance money increased. One wholesaler complained about this breach of trust: *'one agent disappeared in 2013, I had been working with him for 8 years! I was used to him, [...] I treated him like family!' (Interview 2015/01/26)*. If money was diverted, wholesalers tried to sort the issue with the agent, or it was taken to the police or the local district government. Another wholesaler explained how difficult it was to strike a balance: *'giving out advance is tricky, but you have to keep issuing it, otherwise you won't get anything!' (Interview 2015/11/10)*. Due to these risks, some wholesalers invested in the relationship, such as helping agents with money for transport and lunch.

Since retailers neither had much money available nor received advances from outside buyers: *'... to get advance you need money yourself! You need some asset that is worth their money' (Interview 2015/02/19)*. Another difference was that wholesalers were able to trade (almost) all year round, whereas retailers were involved in other activities when the season was low, such as farm labour. Retailers and R&W did not distribute large amounts to agents; they managed smaller sums to enable friends or family to buy produce in rural markets.

Summarizing, organizing finance flows ensures continuation of trade. Table 3 gives an overview of the practices organizing access to and distribution of financial resources. A prominent modality for organizing financial flows was via so-called 'advance money'. These 'loans' worked as informal contracts to ensure business transactions and limit opportunistic behaviour (Pedroza, 2013).

Due to the size of the wholesalers' businesses, they were trusted with large sums of money from companies, enabling them to advance money to intermediary traders in the region. They also showed know-how to cope with risks such as defaulting agents, and had other finance strategies at hand, such as farming, bank loans, and stocking produce. The financial capacity of wholesalers was an assurance for retailers and R&W: in the low season, they approached wholesalers for advance money.

4.2.3. Consolidating finance flows at produce lane

Organizing finance flows entailed subtle forms of collaboration and coordination. Within the group of wholesalers, small amounts of money were borrowed from other wholesalers. Amounts mentioned by wholesalers in interviews varied between 15 and 30 USD and we observed that this happened almost every day and smoothened transactions. For instance, if a wholesaler is short on money to repay an agent: *'it happens*

Table 3
Practices of organizing finance flows in Produce Lane.

	Wholesale N = 25	Retail & Wholesale N = 13	Retail N = 50
Aspects of accessing finance			
Type of finance	Advance from companies Farming Bank loans Stocking of produce	Bank loans Farming	Unskilled labour
Aspects of advancing money			
Type of finance	Advance to intermediary traders	Sometimes advance	Money to friends and family for buying

Source: interviews November 2014–April 2015

once in a while that I cannot pay my agents. ... I tell them to wait, and rush to friends' (Interview 2015/02/26). Also, retailers mentioned that they borrowed money from other retailers daily. Hence, organizing finance flows relied strongly on ties *within* groups; as this might need higher levels of trust (Fafchamps, 2001). We also observed linkages between groups, where retailers and R&W asked for advances from wholesalers to buy produce for them. One retailer explained that, if her business was low, she went to a bigger wholesaler and asked to buy produce for them in outside markets (Interview 2015/02/10). Additionally, two R&W traders mentioned receiving advances from a large wholesaler to buy sesame.

Another form of coordination related to sharing storage space and thus rental costs. One retailer explained that she invited friends to share her store, because she had trouble paying rent. Rents are paid bi-yearly, and average from 150 USD for retailers, to 470 USD for wholesalers (Table 1). All retailers and R&W shared storage space, and some smaller wholesalers as well. The latter mostly shared their store with their wife, who is in retail, and some of her friends.

The analysis of organizing finance flows indicates that coordination of interdependencies and distributed tasks contributes to handling unanticipated risks and smoothening trade. Wholesalers form the backbone of Produce Lane. Following Gebreyesus and Mohnen (2013), they act as 'bridging enterprises' linking the cluster with the outside world. Our analysis of finance flows shows the importance of trust and well-established ties between wholesalers and their agents for the cluster. Informal networks in the cluster helped to mitigate the capital constraints of individual traders (Meagher, 2006). In addition, smaller traders serve as agents for wholesalers. This finding emphasizes the economic benefits of stability emerging from close ties and information sharing through social networks (Fafchamps, 2001). Consolidation of Produce Lane also transpires from sector-specific support services, grouping as a profession and performing in close proximity to one another. Correspondingly, Produce Lane reflects a web of connected practices for organizing produce and finance flows, which brings about underlying processes consolidating Produce Lane as collaborative and coordinated whole. These are visible in various forms of coordination between tasks distributed within and between groups.

4.3. Consolidating produce lane: rules associated with trading

The description of organizing produce and finance flows exposes that everyday trade at Produce Lane relies on skilful performance of individual economic actors, but at the same time has a collective nature. The mixture of variation in running a business is commensurable with a joint interest in maintaining the collective capacity of Produce Lane to act as a trading hub. This is supported by rules and routines tailored to trading and creating a certain degree of predictability in the market. Rules and routines were driven by the nature of the profession and are contingent on the specific context. Below we discuss three areas of rule-setting: complying with basic quality requirements, balancing competition and mutual dependency, and representing Produce Lane collectively.

In a trade hub such as Produce Lane, the prime interest of buyers is in quantity rather than quality. Higher quality produce was not rewarded with a premium price (Vorley et al., 2015). Although basic quality standards needed to be maintained, quality was not an economic proposition for traders. Instead, traders were rewarded for higher quantities: one wholesaler explained that he received a premium of 0.0012 USD/kg if he sold 500 tons (or more) of sunflower in one season to Mt. Meru (translating to 600 USD extra per 500 tons). Trade was thus about ensuring a consistent flow of quantities of produce, contradicting results of non-food clusters, where quality improvements are necessary for achieving competitive advantage (Gebreyesus and Mohnen, 2013).

Yet, basic quality standards needed to be maintained. Therefore, wholesalers and retailers assessed the quality of bags delivered at their stores. If quality was below standards, a buyer rejected the produce. Particularly larger oilseed processors and oil manufacturers, Mt. Meru

and Mukwano, controlled moisture content of sunflower; if it was not well-dried, it weighed more, and processors risked paying more for this extra weight. A second quality issue, also related to quantity, concerned mixing dirt through produce. Traders blamed farmers for mixing produce with all kinds of dirt such as sand or charcoal, hoping to earn some extra money with the extra weight. Traders emphasized the importance of detecting these issues upon buying, so that produce was cleaned or dried properly before a deal was made. Some wholesalers trained their agents in recognizing these quality issues. If dirt was detected at Produce Lane, cleaners were hired to clean crops manually. Especially larger traders hired cleaners, whereas retailers were more likely to clean produce themselves.

The focus on quantity led to competition over access to producers and production areas. Wholesalers did indeed not source much produce together. Traders in Produce Lane deployed distinct strategies to attract the attention of customers: specializing in certain products (Dijk and Sverrisson, 2003), or investing in transport and storage and thereby increasing volumes. Several wholesalers explained that buying sunflower needed transport as well as employing agents. Sunflower was a crop sold by farmers in large volumes in a short time frame, and both agents and owned transport (as opposed to hiring) enabled sourcing large volumes in a short time period. Owned transport was less necessary for sourcing soya, as its peak was less concentrated. One wholesaler mainly focused on soya and chose not to invest in transport, thereby saving money on the investment as well as maintenance. He maintained connections with traders in Kampala who knew him as a relying partner for soya. Retailers mainly focused on food crops such as maize and beans. The advantage was that these are traded in smaller amounts throughout the year, whereas oilseeds were more seasonal.

However, all traders depended on each other for selling produce (e.g. 'filling trucks together') and competition was therefore not fierce. This absence of fierce competition also had consequences for rules around setting up a store at Produce Lane; it was not difficult to start a business. Connections with, and recommendations of, friends or family had been important for establishing a store at Produce Lane for three quarter of the traders (survey data). However, one fourth of the traders surveyed at Produce Lane replied that the store was just empty, and they inquired if they could rent it. These answers did not differ between types of traders. In addition, for wholesalers, some level of 'trade skills' was important (although traders did not mention to be assessed by other traders on their trading skills). Quite some wholesalers mentioned that, before starting trade from Produce Lane in Lira, they were intermediary traders in the country side. One wholesaler explained: 'I raised some good capital between 2000 and 2004, then I could start renting in [Lira]. Here there are many people who bring their produce, so your volumes easily increase. And it is easier to sell, you can access the markets fast' (Interview 2015/04/14).

Lastly, we discuss the only formalized institution at Produce Lane: Produce Buyers Association (PBA). It was established in 2001 and represented all traders at Produce Lane and those from a wide area around Lira. Not all traders at Produce Lane belonged to the association, and especially for retailers the membership fee of 45 USD per year was too high. The association met a few times a year and dealt with the terms and conditions under which traders buy and sell. It made sure that members had a trading license and paid taxes; that quality standards were maintained. The PBA also addressed issues around alcoholism, diverting money, and safety. The association hired two security guards to protect Produce Lane at night, after some weighing scales and produce got stolen from stores. These kind of measures confirmed the reputation of Produce Lane, which was important for attracting buyers, as the chairman of the PBA explained (Interview 2015/03/10). Furthermore, The PBA represented traders in meetings with the local government. Assembled in the PBA, traders tried to make agreements with the local government preventing Busia traders (traders coming from the town Busia, a town in the southeast bordering Kenya with plenty of cross-border trade) to buy in villages directly, but as far as we are concerned the government refused to do so. Lastly, the PBA

addressed social issues, such as collecting money for burials.⁶

Summarizing, the regulatory nature of Produce Lane is manifest in checking basic requirements regarding quality and in some form of collective representation in interactions with local governments as well as external traders. The existence of an association contributed to enforcement of rules (McCormick, 1999), and restricted opportunism (Harris, 2016). Interestingly, economic actors assembled in the agri-food cluster obeyed regulatory limitations for how to compete. Traders deployed distinct strategies to enhance their businesses, by specializing in certain products, strategically investing in transport or storage space. These strategies are closely related to the type of product traded at Produce Lane, and can be different in other types of clusters (see for instance Meagher, 2006). Yet, fierce competition seems absent in Produce Lane, since traders equally depend on each other for increasing volumes transacted; which confirms findings of Harris (2016) showing how informal competition erodes trust and weakens joint actions.

5. Discussion

Our descriptive account of practices of conduction, i.e. organizing produce and finance flows, exposes that the agri-food cluster in northern Uganda accommodated a wide diversity of actors and offered income and employment to wholesalers, retailers, and traders engaged in both retail and wholesale. The economic activities of traders attracted supporting professions such as porters and cleaners with desired skills for traders and benefiting the cluster (Harris, 2014). Despite numerous challenges, the organization of produce and finance flows to and from the cluster remained remarkably stable. The cluster of actors assembled in Produce Lane developed, used and reinforced the modes of handling produce and finance flows for more than twenty years. Traders themselves valued the benefits of being clustered (Harris, 2014) and recognized Produce Lane as an established institution for buying and selling produce, as well as outside actors such as buyers, the government, and competing traders.

We set out to understand how and why Produce Lane, a cluster of situated trading practices, persists in a changing environment. Through which processes do the ensemble of actors and their interdependent practices consolidate the institutions governing an agri-food cluster? We conceptualized Produce Lane as a self-enforcing institution (Greif and Laitin, 2004), which emerges from evolving practices of conduction assembled in a spatially bounded economic space. We theorized that institutions are consolidated to the extent that they are carried forward by the behaviour of individual actors, and that they should be feasible within their social, economic and material environment. Our practice-oriented analysis demonstrates that the practices of conduction assembled in Produce Lane are consolidated because they are *collaborative, coordinated, and regulated*. This is related to the reality of managing produce and finance flows under specific contextual conditions. Produce Lane as an organizational architecture creates space for individual conductors to do their businesses in an interactive and collaborative manner. Some form of coordination of interdependencies and distributed tasks is vital for handling unanticipated problems, and for smoothening and continuing produce and finance flows. Practices are regulated through a set of both informal and formal rules reinforcing the organisational structure manifest in Produce Lane.

These institutional features of everyday practices of conduction set the stage for detecting the institutional properties of produce lane as-a-whole, which are conducive for how the ensemble of economic actors create and self-reinforce an urban agri-food cluster: how the cluster remains viable. We identify three types of properties: 1) accommodating a variety of practices, and thus actors and interests; 2) ordering distributed tasks without external controls while navigating a changeable

socio-material environment; and 3) achieving social settlements using rules which emerged from the specialized tasks of managing produce and finance flows.

First, the variety of interdependent and mutually reinforcing practices is a main feature of Produce Lane. The cluster combines individual and collective performances of an ensemble of different types of wholesalers, traders and retailers. This links to the collective efficiency argument used in cluster literature, the competitive advantage of unintended and joint economic action (McCormick, 1999). Rooks et al. (2012) conclude that entrepreneurs with intermediate degrees of constraints appreciate two types of benefits of being in a cluster: heterogeneous sources of novel information (brokerage) needed for innovation and sufficient closure and bonding to avoid action problems (embeddedness). The performance of actors within a cluster or network depends on both open and embedded ties (e.g. Rooks et al., 2012; Walther, 2015); and the absence of fierce competition (Harris, 2016; Meagher, 2006). Our analysis, using a practice approach, expands on cluster literature that recognizes this heterogeneity in clusters (Gebreyesus and Mohnen, 2013), and demonstrates that collective efficiency is reproduced in an agri-food cluster because it *accommodates variety*. The skills and financial capital of larger traders, their dependency on smaller traders for mitigating fluctuations in finance and produce, and internal as well as external task distribution are important for maintaining the cluster. This emphasizes that trading and conduction are never purely individual practices; rather, they are reinforced through mutually dependent practices jointly ensuring a consistent and large flow of produce at a recognized hub. Hence, accommodating a variety of practices appears to be a necessity for consolidating Produce Lane.

Second, Produce Lane as an economic space connects a variety of task-oriented groups (McFeat, 1974), which are organized around accomplishing specific ends, such as aggregating produce or making timely payments. These groups organize and interact to constantly solve (unanticipated) problems in the whimsical setting of agricultural markets. Proven performance in such a setting keeps task-oriented groups intact and reproduces institutions, even though knowledge and skills are distributed both organizationally and spatially (Hutchins, 1995). Consequently, Produce Lane is a *self-organized form* - the emergence of order without external control (Nicolis, 1989) - embedded in the practices for arranging produce and finance flows that are adapted to specific local conditions. This emphasizes the situated and flexible nature of the market institution. Steering emerges from interaction, resulting in useful action (Kinyanjui, 2010) - the successful management of produce and finance flows for trade -, without a single actor having total overview of the complete situation. Hence, self-reinforcement of Produce Lane emerges from performance and is not imposed by a controlling agent.

Thirdly, Produce Lane is a self-regulated organizational form in which a variety of actors are capable of achieving social settlements. Over time, ordered and evolving trade practices have created a set of rules and routines fitting specific conditions. The ensemble of economic actors in Produce Lane constructs, uses, and transforms a *set of rules and routines* specifically relevant for the craft of food trade. This echoes Berndt and Boeckler (2009), who argue that market exchanges in clusters depend on socially agreed institutions which provide stability for various actors involved; because they are always accompanied by uncertainties arising from problems in exchange and competition. In Produce Lane, the rules attached to the daily practice of trading are both informal and formalized through a business association (the PBA). Informal and formalized organizing resembles an emerging guild (Schoonhoven-Speijer et al., 2017), with associated rules and 'interaction rituals' with symbolic significance (Lawrence, 2004). This ensures the coordination and internal enforcement required for effective collective action (Greif et al., 1994) - which makes Produce Lane more exclusive, gives different types of traders different kinds of positions in the cluster, and implies certain modes of control, within which traders can still make individual choices. A specific set of rules and routines draws organizational and spatial boundaries around the economic

⁶ Burials in Uganda are an important social activity requiring large sums of money, so it is a custom to ask friends, family and colleagues to contribute.

space, which adds to its institutional viability.

6. Conclusion

This paper demonstrates how everyday practices of trading self-reinforce an urban agri-food cluster. Produce Lane is larger than the sum of its parts: the exchange of agricultural produce and the necessary finance is materialized by interdependencies between large and small wholesalers, retailers, and their support actors. Arranging these exchanges (under unfavourable and fluctuating conditions) entails skill formation, building and maintaining complex relationships including task distribution, and constructing rules underlying routines, while leaving room for improvisation. Accommodating a variety of actors and practices is an essential condition for self-reinforcement: variety in the cluster is instrumental in achieving viability. Order coordinating these practices emerged within the cluster without external control, and the cluster is regulated through rules emerging from the tasks specifically related to the nature of Produce Lane.

We reached these insights by adopting a practice-oriented methodological approach for the study of a sustained agri-food cluster. A focus on practices offers methodological guidance for the analysis of institutions governing dynamic market places, and the agency of economic actors expressed in the practice of conduction. It enabled us to study Produce Lane as a cohesive set of practices, which organize produce and finance flows, while considering not only a diversity of actors, but also a large variety of transactions and contracts between these actors. Integrating an institutional lens with researching everyday practices of conduction opens conceptual space for analysing the performance of real markets in food provisioning.

We typified three sets of properties to explain how a well-functioning cluster remains viable. Complementary studies are needed to unravel how institutional reinforcement of a cluster is contingent on its context. Harris (2019) adds a focus on the effects of land delivery and holding mechanisms on how informal production clusters evolve. Meagher (2006, 2007, 2010) shifts attention to the influence of politics and political reform on economic capacities, explaining how clusters can be vulnerable to fragmentation and involution in the context of liberalization, state neglect and political opportunism. As Meagher (IBID) shows, these kind of pressures lead to increased competition, and new tensions around generation, class and gender; together eroding collective action. Consequently, enterprise networks were increasingly defined by an individual's portfolio of ties, rather than by collective arrangements at cluster level (Meagher, 2010). In addition, a comparative and historical analysis of different clusters may be able to further typify the variety of ways to creating and sustaining institutionally viable ways to organize trade.

As an ensemble of practices, Produce Lane fulfils an important brokering role in arranging consistent supply of food and financial flows between farmers, and local and regional food markets. Our research confirms the vital role intermediary traders can play within rural markets in a development setting. This insight has policy implications for the development of market linkages. In a context of liberalization, globalization and downsizing states, small firm clusters are regarded as a useful model for industrialization and employment generation in a development context (Meagher, 2007). However, interventions and service development models supporting clusters often impose formalization, which might disrupt processes of joint action (Harris, 2016; Kinyanjui, 2010). Moreover, instead of inducing new organizational models (which might also include contracts, commodity exchanges or collective marketing), institutional design might benefit from more hybrid models (Kinyanjui, 2010). These should build on viable institutions already present, with proven capacities to manage produce and finance flows under conditions of fluctuation and scarcity.

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None.

CRediT authorship contribution statement

Mirjam Schoonhoven-Speijer: Conceptualization, Methodology, Validation, Formal analysis, Investigation, Data curation, Writing - original draft, Writing - review & editing, Visualization, Project administration, Funding acquisition. **Sietze Vellema:** Conceptualization, Methodology, Investigation, Writing - review & editing, Supervision, Funding acquisition.

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