

Research Article

Social Structure Analysis in Management of South Sumatra Inland Waters

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Abstract

The social structure of inland fisheries communities tends to place powerful elites in important positions, while local fishermen are subordinate actors. Patronage is a form of social relationship that describes the unequal social structure between these actors. This research aimed to analyze social structure in the inland waters of South Sumatra in the practice of the Lebak Lebung and River Auction (L3S) in OKI District. To achieve this goal, a constructivist paradigm with qualitative research methods was employed, and the sample comprised 39 informants selected as subjects. The data analysis was conducted in three distinct stages, namely data reduction, presentation, and drawing conclusions. The results showed that the regulation of open access for all parties in the local government regime after 1982 created an institutionalized social relations structure where the government, investors, traders, middlemen, and non-fishing actors dominated compared to the fishermen. The participants in this social landscape strived to accumulate capital to enhance their competitiveness within the L3S domain. A patronage system was implemented with middlemen assuming the role of patron and the fishermen acting as their clients. The current institutional social structure has created an unfair distribution of resource benefits for fishing workers. The novelty theories were found in the working relations of the inland waters community of South Sumatra, namely stratified distribution of rights, dual status, multi-stage patronage, and the positive function of patronage for chief fisherman. Further research should be conducted to research policy revitalization and develop strategic inland water management models.

1. Introduction

Humans are social beings who cannot live alone or be self-sufficient without the help of others (Horgan, 2014; Pierre and Chartier, 2015), including in the process of using natural resources (FAO, 2020; Arthur et al., 2021). Furthermore, Blau (1977) stated a relationship that is stable in forming certain patterns known as social structure. The relationship created in the process of using natural resources is patron-client, namely a reciprocal interaction between actors (different socio-economic status), mutually beneficial but tends to be unequal (Scott, 1972; Blau, 1977; Reuter, 2018). Many studies suggest that patron-client relationships often occur in the fisheries sector in coastal and marine ecosystems (Firth and Yamey, 2013). The discussion revolves around patrons as ship owners who possess devoted workers, or rather experience interdependence owing to bonds of reciprocity concerning the socio-economic services rendered by patrons to clients and their families.

The fisheries resource crisis has become a major world problem since the 1990s, and the demand for global fish reached 90.9 million metrics in 2018 (Yonvitner et al., 2020). This is related to the complexity and fragility of the freshwaters ecosystem, changes in habitat, invasive species, climate, and overfishing (Bartley et al., 2015; WWF, 2018; Zadereev et al., 2020; Yonvitner et al., 2020; Stacey et al., 2021). Meanwhile, the existence of a working relationship in fishing communities is inseparable from the condition of fish resources in open-access waters (Ma'ruf et al., 2019; Kartamihardja, 2015; Hoggarth et al., 1997). The absence of a special program to empower small fishermen keeps the patron-client scheme stable (McWilliam, 2020; Reuter, 2018). The description shows that coastal and marine fisheries practices have almost the same characteristics as inland waters. The working relationship of inland fishermen are rarely disclosed in a comprehensive manner. In South Sumatra Province, inland waters are referred to as *lebak-lebung* public waters and rivers (*Perairan Umum Lebak-Lebung dan Sungai*/PULLS) managed by an auction system. This research investigates the urgency of analyzing the working relations formed in the *Lelang Lebak-Lebung dan Sungai* (L3S) practices in Ogan Komering Ilir (OKI) District suspected of having distinctive working relationship characteristics (Vetemaa et al., 2005; Rezeky, 2019; Yanti and Muthmainnah, 2021).

According to Muslimin and Suadi (2018), *lelang lebak lebung* is a fishery resource management system that has become a community tradition for generations. Muslim (2012) stated that the history of L3S started in 1850 and was managed by clans (traditional law units in South Sumatra at the village level) before being abolished by Village Government Law No.

5 of 1979. Meanwhile, Nasution (2012) reported that the official momentum for the transfer of control over auction management began in 1982. The Decree of the Governor of South Sumatra No. 705/KPTS/II/1982 November 1982 delegated the authority to implement and supervise L3 to district governments. This change was related to an increase in the level 2 APBD and the fisheries sub-sector; hence, 70% of the proceeds moved from auction to the fund.

L3S policy updates ([Perda] *Peraturan Daerah*/Regional Regulation of OKI District No. 18 of 2010 concerning management of Lebak Lebung and River) and previous research showed that the main difference in L3S was in the rules of the bidder. During the reign of the clan, the practice of auctioning was carried out behind closed doors, only attended by the respective clan communities that owned the object and held auctions. The government regime opened opportunities for all residents with OKI resident identities. The aim was to open access to the public; hence, bidders were not limited to professions and village origins. The regime change also changed the distribution of results to the village where the L3S object was located. The accumulated results were distributed equally in OKI, with adjusted percentages for villages without objects. However, research results found different facts, and the discourse on opening access was precisely a cover for access for local communities (Muslimin and Suadi, 2018; Grantham, 2015).

Empirical research showed that many *pengem-in*/auction winners in the era of the local government regime were dominated by large fishermen, entrepreneurs, or capital owners such as *tengkulak*/middlemen. Small fishermen who previously were able to participate as bidders and buyers must be satisfied with the position of fisherman workers (Nasution, 2012; Vetema et al., 2005; Yanti and Muthmainnah, 2021). This phenomenon explains the formation of new working relationships, including patronage relationships. According to Anderson Jr. (2013) and Diamond (2021), the basic factors for the formation of patron-client positions are influenced by differences in access to and control over resources or capital. Based on the research on coastal communities, capital important to master is physical capital, skill capacity, human knowledge, finance, and social networks. Scott (1993) described three types of resources owned by patrons based on their control: 1) knowledge and expertise; 2) direct ownership under their supervision; and 3) the power of others with indirect control.

Another theory refers to Bourdieu (2010) explaining the efforts of actors to occupy the arena, such as the L3S economy in inland waters, namely the need to accumulate and distribute capital to occupy a dominant position in the expected arena (Pierre and Charti-

er, 2015). According to Bourdieu (2010), there are four capitals used by actors, but in this research, these four capitals are not enough; there are physical, natural, and motivational capitals that need to be added as analytical indicators. Furthermore, it is important to analyze the structure of social relations in the current practice of the L3S in OKI District. An in-depth analysis is carried out on the pattern and peculiarities of the existing patronage system. The patronage system takes place in capture fisheries business groups, namely *tengkulak*/middlemen as patrons and fishermen as clients. In previous empirical experience, community patronage characteristics in public waters were dominative, exploitative, and asymmetric with a binding debt and credit scheme, where social responsibility included elements of morality. The results of this research show a similar scheme, but there is a patronage relationship between *pengemin* and the chief fisherman, which has a positive impact on the two because the cooperation scheme and strong relationships have increased the welfare of not only *pengemin* but also the chief fisherman. This finding is called the positive function of patronage theory.

2. Materials and Methods

2.1 Location and Time of Research

This research was conducted in Sirah Pulau Padang, Jejawi, and Pedamaran Sub-Districts, OKI District, South Sumatra. The location selection was carried out purposefully with the following considerations: implementing L3S, strategic location close to the center of government, including sub-districts with more objects in 2020, namely 19, 21, and 24 objects in Sirah Pulau Padang Sub-District, Jejawi Sub-District, and Jejawi Sub-District, respectively (Figure 1). Research activities were carried out within two (2) years (2021-2023), for a total of five months at the location.

2.2 Method of Collecting Data

This research used a constructivist paradigm and qualitative research methods (Creswell, 2018), and the selection of informants was conducted purposefully. Selected informants were individuals or groups who understood and were related to L3S practices among

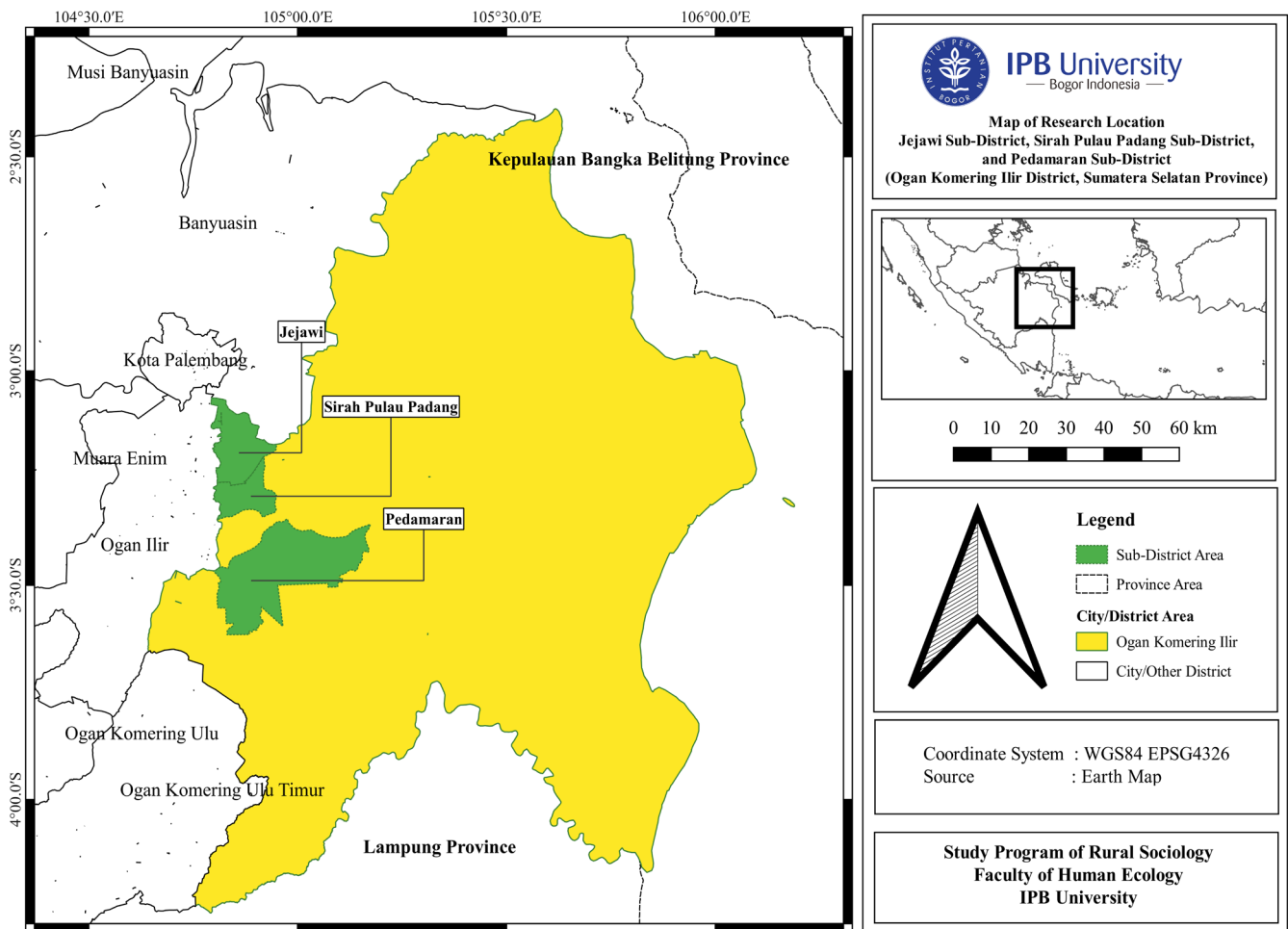


Figure 1. Map of research location

OKI District government officials. These included the Fisheries Service and related agencies, the district government, village head forums, community leaders, supervisory groups, *pengemin*/auction winners, and fisherman workers. Primary data was obtained through the collection of observational information, in-depth interviews, and focus group discussion (FGD). In-depth interviews were conducted using guided questions with informants regarding the structure of social relations, particularly patronage in L3S practices. Meanwhile, secondary data in the form of an overview of the area, potential natural resources, and data related to L3S practices were obtained from documents at the OKI District government office and related sub-districts, as well as several village offices with auction objects such as Pedamaran 1, Belanti 1, and Jejawi Villages.

2.3 Analysis Data

The qualitative data obtained were in the form of diaries, documents, pictures, and audio-visuals. The qualitative data analysis method was used by going through three activity streams, namely reduction, presentation, and drawing conclusions or data verification, according to Miles and Huberman (1992). First, the reduction stage involved grouping the data into categories of record groups according to the research objectives. Second, the presentation stage compiled information and data grouped into a series of words, charts, pictures, and tables. The stage of drawing conclusions from the results of data processing and field verification was then carried out. The three stages were performed before, during, and after the data collection.

3. Results And Discussion

3.1 Result

Referring to the concept and theory perspective, patron comes from Spanish, which means “a person who has power, authority, and influence,” while client is an absorption from English, defined as a person who receives instructions or customers. The two are actors with opposite roles but are bound to each other (Scott, 1972; Blau, 1977; Reuter, 2018; Nurlia et al., 2021). Scott (1972) defined a patron-client relationship as a reciprocal relationship between two or more people, specially established and based on mutual benefit through a process of giving and receiving. Leaders of higher social standing (patron) extend socio-economic protection to their subordinates of lower social status (client), while the subordinates endeavor to offer the utmost service under the requirements of their superiors. Scott elucidated the presence of an instrumental friendship or a moral indication, binding parties to fulfill the obligation of aiding one another despite the inherent unequal reciprocity in reality (Thiel, 2022; Diamond, 2021; Reuter, 2018).

Work relations, such as patron-client relationship, originated as a form of kinship where individuals sponsored each other, fostering mutual trust and support (Scott, 1972). Patron-client relationship is inherent in societal norms that involve sanctions resulting from social construction. Sanctions are applied when one party fails to act as expected and becomes challenging to terminate the existing relationship. Kitschelt and Wilkinson (2007) explained that patron-client relationships could be in the form of reciprocity, volunteerism, exploitation, domination, and asymmetry. For example, Kinseng (2014) in Balikpapan, East Kalimantan Province, analyzed the relationship between the fishing labor class (*sawi*) and the sea fishing boat owner class. The relationship pattern between the two parties exhibits two distinct dimensions. Firstly, there is a dominative exploitative aspect, where the workers endure exploitation and dominance from the owner, who demands hard work while offering low and fluctuating wages. Secondly, the workers receive various forms of “help” from the owner, where patron and client have disregarded the inequality, perceiving themselves to be in secure positions. Raising awareness is crucial to create opportunities for a better life for the oppressed. The patronage theories also serve as the foundation for analyzing the concept in L3S practice in the OKI District. Additionally, there are unique results or novelties regarding patronage relations in the inland waters of South Sumatra through the L3S system.

The result of the study showed auction mechanisms, which are: 1) auction participant could be individual 1(a), fishermen community 1(b), and Koperasi 1(c) (Figure 2). To participate, individuals are required to possess a citizen card of the district area and select a minimum of one object and a maximum of three objects. After auctioning (2), the winner, known as *Pengemin*, must complete the payment (4), which can be used for fisheries activities for one year, and fishermen could rent an auction area from *Pengemin*. However, when the payment is not completed, *Pengemin* will be charged 10% or threats retained for three (Muslimin and Suadi, 2018).

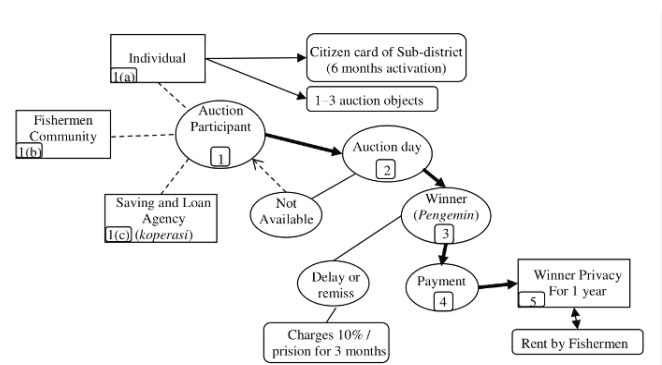


Figure 2. Auction Mechanism (Muslimin and Suadi, 2018)

This study used an overview of the stages of L3S implementation in general from [Muslimin and Sua-di's \(2018\)](#) research ([Figure 2](#)). One important thing is that the developer can have an actor background from the fisheries sector or capital owners who are not involved in the world of fisheries, so that after winning the auction, the object will be immediately rented back to tenant fishermen who need it. There is an aspect that is not described in this research, namely that there are potential participants in the first stage who only take advantage by threatening previous buyers by requesting special fees so that the auction objects targeted by the buyers are not competed for. The next sub-chapter explains this in detail through fan classification.

3.1.1 Patron and client

Referring to the results, the patron-client relationship takes place in L3S practice in OKI District. Patronage relations have been going on since the practice of auctions by the clan government. Furthermore, the relationship described by [Scott \(1972\)](#) between fishing activities was simple. In the current district government regime, open access to bidders has sparked a more complex patronage relationship.

3.1.1.1 Patron

The majority of patron in L3S practice are *pengemin* but are no longer exclusive participants. The more appropriate term for individuals holding the position of patron is "financier," and many are not directly registered bidders but merely provide capital to potential *pengemin*. The rules for auction participants grant open access to all residents of OKI District (including OKI identification card holders). Therefore, auction participants are no longer limited to those with fishing backgrounds. The competition to become *pengemin* has intensified, and it is dominated by owners of capital, such as entrepreneurs. Many fishermen who became *pengemin* and assumed the role of patron were downgraded to client or laborers in their natural resource areas. The inclusion of multiple parties intervening in L3S fishing business practices has made patronage relationship highly complex. In the case of L3S, the position of patron is occupied by *pengemin*, businessmen, or financiers. Furthermore, these groups are then further subdivided based on their function and role in L3S practice.

3.1.1.1.1 Pengemin classifications

Pengemin from large fisherman, tengkulak, or middlemen. Individuals primarily engaged in the fisheries sector, such as prominent fishermen, possess the capability to lead and oversee capture fisheries practices. The role entails assuming responsibility for all workers involved and ensuring the smooth functioning

of upstream and downstream activities. Despite their inability to directly engage in the fishing process, these large fishermen or middlemen are adept at organizing all necessary aspects, including procuring fishing equipment, managing workers, and coordinating the distribution of the catch.

The formal men of Pengemin. An unemployed individual within the fisheries sector who possesses the necessary capital and resources to partake as a bidder may engage in the auction process. After emerging victorious in the auction or becoming a *pengemin*, the course of action entails leasing back the acquired auction object. Certain individuals may divide auction objects into multiple parts and rent them out to several parties, including authentic fishermen. This situation exemplifies the regulation of open access to restrict access for small and medium-sized fishermen.

The shadow of Pengemin. Some individuals attempt to partake in an auction without genuine intentions of winning the object to disrupt bidders. Furthermore, *pengemin* tended to retain the same auction object due to various factors, such as potential production outcomes associated with the objects and the production facilities. Some individuals took advantage of this situation by making bids to later withdraw from the auction, providing *Pengemin* with "uang damai," or peace money, as compensation at the outset. This advantage has become a sought-after incentive for new participants. The candidates for the shadow *pengemin* can form groups to engage in such actions, and this troubling system lacks practical and strategic government follow-up. The L3S practices seem to prioritize high auction results without considering the identities of the participants involved. This approach raises concerns about the fairness and integrity of the auction process.

3.1.1.1.2 Two entrepreneurs who involved

Post-harvest entrepreneur. Entrepreneurs in the post-harvest processing sector provide loan capital at the cost of renting L3S objects to *Pengemin*. From all informants, at least 38% of *pengemin* were funded by the same person. One businessman lives in a different district, namely Ogan Ilir (OI), with a business line of salted fish processing. In addition, the actor collaborates with many *pengemin* from both OKI and OI district. In the form of cooperation, *Pengemin* is obliged to deposit fish, which is quantified in several loans since the selling price of fish is determined by this ruler or financier. The effort is made to ensure a stable supply of fish for the business.

Market trader. Like fish processing entrepreneurs, there are also market traders working to provide initial business capital for auction rental fees. Similar to

the previous case, the agreement stipulated on *pengem-in* is responsible for supplying daily fish production to market traders as a form of payment for auction lease loans.

3.1.1.2 Client

Clients are individuals considered subordinates who receive instructions from leaders. They collaborate with their patrons, who are perceived as reliable figures providing socio-economic protection. According to Mirajiani's research (2015), the attitude of the client can be seen as a means of economic survival, where economic certainty or the social security system is sought to make them loyal accomplices of their patron. This behavior aligns with the concept of relational attachment, where economic actions are socially situated and influenced by social networks (Granovetter, 1992; Thiel, 2022). The subsequent explanation delves into various client categories, described using both local and new terminology.

Chief/managing fishermen. A fisherman is trusted to drive the course of fishing activities in the

field and organize all needs, including production facilities. The majority of fishermen have traditionally been distinct from the role of *pengem-in*. However, some individuals possess the capability to assume the position of chief fishermen and simultaneously ascend to the esteemed role of *pengem-in*.

Permanent member of fishermen. A working fisherman is directly involved in the process of catching fish, fully following the instructions of the superiors, both the chief fishermen and *pengem-in*. The bond of socio-economic responsibility between *pengem-in* and the chief fishermen, as well as the member fishers, is quite strong. This involves loyalty, allegiance, and guarantees for the fulfillment of the primary and secondary needs of workers.

Bekarang fishermen. The freelance fisherman operates independently, without a fixed wage agreement, and seeks a leasing system for accessing certain auction objects within a specific area and timeframe from the *pengem-in*. The ongoing patronage relationship is relatively non-restrictive due to its temporary nature and conditions.

Table 1. The rights and obligations that apply between the actors involved as patron and client.

Relationship of Two Actors	Rights and obligations	
	Patron	Client
Pengem-in and Chief Fisherman	<ul style="list-style-type: none"> Guarantee operational costs, primary and secondary workers, and their families. Social responsibility and demands to maintain <i>lebak</i>. Improving the workers' economy ("Prosper together"). 	<ul style="list-style-type: none"> Ongoing binding debt. Loyalty, loyalty and not cheating. The accumulated social financing/security received is replaced by the proceeds from the sale of fish (difference in profit sharing).
Pengem-in & Daily Contract Fishermen	<ul style="list-style-type: none"> The relationship is only a service-wages. 	<ul style="list-style-type: none"> Not bound by system of debt and loyalty (has >1 <i>pengem-in</i>).
Big Entrepreneurs, Financiers (Pemodal) & Pengem-in	<ul style="list-style-type: none"> Investors provide financing capital loans (rental, operational, primary, and secondary workers, and families) 	<ul style="list-style-type: none"> Ongoing debt system, loyal, and not cheating. Supply fish supplies as payment. Cheap fish prices.
Pengem-in & Market Trader	<ul style="list-style-type: none"> The customer trust system applies. Delay payment system (payment for yesterday's fish). 	<ul style="list-style-type: none"> There is no written supply agreement per day. However, it is implied that there are lots of fish.
The Formal men Pengem-in & Chief Fishermen	<ul style="list-style-type: none"> Non-fishing actors have the power to win auction. Buying and selling transactions of objects won (in stages of lease). Divide objects are rented out. 	<ul style="list-style-type: none"> There is no special obligation between the two, only use the land according to the portion.

Tenant fishermen. Tenant fishermen cooperate in leasing auction objects over a longer area and period of time. Shades of exclusivity apply in this collaboration, and most of the tenant fishers are actors disrupted by the L3S regulatory system in the district government era. Previously, fishermen were able to fight over the object of the auction, but high competition and the rental price were satisfied with the gradual leasing pattern. *The formal men of Pengemin and the shadow of Pengemin* are the individuals who engage in leasing back auction objects. They are not directly involved in the fisheries business but benefit from the rental proceeds.

The result showed the relationship between patrons and clients based on their rights and obligations, where most *pengemin* act as patrons and fishermen as clients, but there are also different actors where the first person is the patron (Table 1). The more rights and obligations imposed on patrons and clients, the stronger the relationship between the two will be. The strongest relationship is between *pengemin* and the chief fisherman because the rights and obligations given are not just wages and services but involve further socio-economic responsibilities, such as the patron’s obligation to fulfill the primary needs of the chief fisherman’s family, who are left at home while the chief fisherman is working in the Lebak and being rewarded with the fishermen’s loyalty and dedication to the fishing business owned by the patron. This relationship is very different from the patronage relationship between *pengemin* and daily contract fishermen.

3.1.2 The complexity of institutionalized L3S patronage relationship structure

3.1.2.1 Typical results of L3S patronage relations

Schlager and Ostrom (1996) found differences between parties based on their rights to use natural resources, and the concept of a bundle of rights is similar to inherent status. There are five ownership statuses based on the accumulated rights possessed. Schlager and Ostrom (1996) described five types of rights, namely: 1) access right to enter the resource area; 2) withdrawal right to use the resource or the right to produce; 3) management rights to determine operational rules for resource use; 4) exclusion right to determine which party is allowed to access; and 5) alienation right to sell or rent resources. Referring to the current practice of L3S, the government acts as the proprietor with basic rights ranging from access to exclusion. Therefore, it is the government that decides whether the object is auctioned or freed, rehabilitated, or divided into parts until the winner has the right to manage the object. The bidders solely serve as participants in the process, and upon

being elected as *pengemin*, their status transforms into that of a claimant, who is granted access rights to manage the object based on a special agreement.

The results showed the unique existence of the stratified distribution of rights. The phenomenon is the distribution of rights, where the auction objects are divided and leased back to multiple fishermen. *Pengemin* is appointed as the proprietor despite having only the status of a claimant. Consequently, within the multi-level distribution of rights, *Pengemin* indirectly holds dual status, acting as the proprietor and the claimant. The dual status theory is found to be a novelty and more closely related to patronage relations. Based on the description of the actors who act as patron and client in the previous sub-chapter, there is a dual role. *Pengemin* can become a patron for the fisherman who works while at the same time being a client for the financiers (Figure 3). In the L3S case, a person can be a patron as well as a client for a higher patron. This shows that the main controller of the social structure of the community in L3S management are market actors outside the L3S capture fisheries business group. Putri (2023) explains that market-based management has controlled who plays the role of being a *Pengemin* and controlling the distribution of fishery products, as well as the economic benefits of implementing auctions in Ogan Komering Ilir (OKI) District.

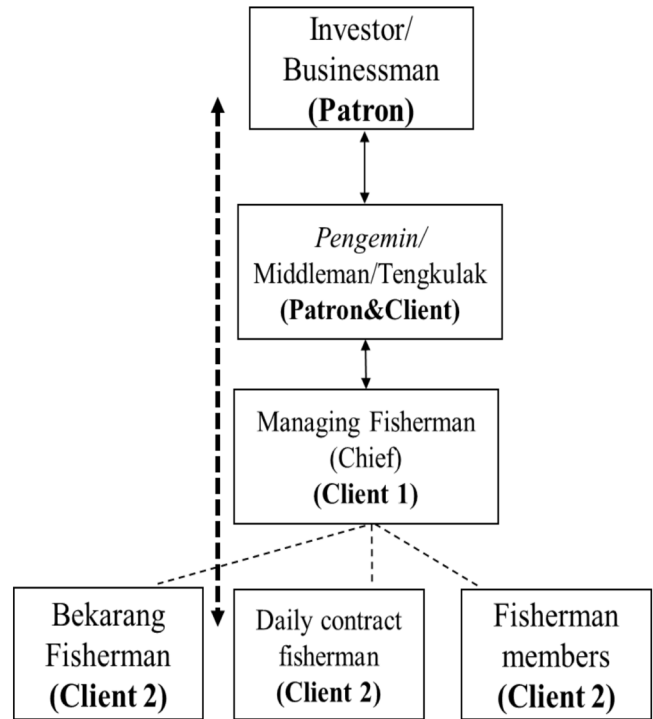


Figure 3. Structure of patronage social relations at L3S in OKI District

The team has *Pengemin* as a key person empowered to organize workers, seek capital, and establish cooperation with potential parties. Chief fishermen act as the driving force for fishing practices, with members, daily fishermen, and current fishermen as the most basic subordinates. Even though the patronage bond is layered, the role of each actor is very large. In addition, when one party fails to fulfill its role properly, it significantly impacts the sustainability of the fishing business. The primary patron often lacks direct contact with the lowest-level client, and there is a possibility of not being familiar with one another. The social responsibility presented by Scott (1972) needs to be analyzed based on the type of relationship between actors. In this case, there is no special responsibility for the main patron to the bottom client, who is working hard to achieve the goal of the patron.

The network of L3S patronage relationships was analyzed based on the strength of the relationship. According to Scott (1993), the initial contribution of a strong loyalty relationship between the two parties (patron and client) leads to dependence and tends to refer to the unequal distribution of results between the two. The hypothesis states that the stronger the patron-client relationship, the more difficult it is for clients to rise above economic limitations. Patronage research at L3S

presents a different phenomenon, and the lead fisherman (client 1), strongly attached to the *pengemin* (patron), can improve the standard of living by increasing income, building houses, and increasing transportation. The fulfillment of these primary and secondary needs is assisted by the figure of the patron. In contrast, daily worker fishermen (client 2) have the freedom to engage with more than one patron. This comes at the expense of income, which tends to be relatively low, and the resulting novelty theory is the positive function of patronage. Even though this reality is increasingly accumulating, the bond is shackled and difficult to separate.

3.1.3 The intervention of external actors dominating post-regime transition

The sub-chapter on the classification has described in detail the main actors who take on the roles of patron and client in L3S practice. However, there are many stakeholders related to the inland waters auction system in OKI district, specifically after the regime transition to the district government. The element is very influential on the sustainability of the *pengemin* fishing business and the success of L3S every year, including:

Government sector and management committee. The head of the OKI District acts as a steering committee, while the Assistant for Development and

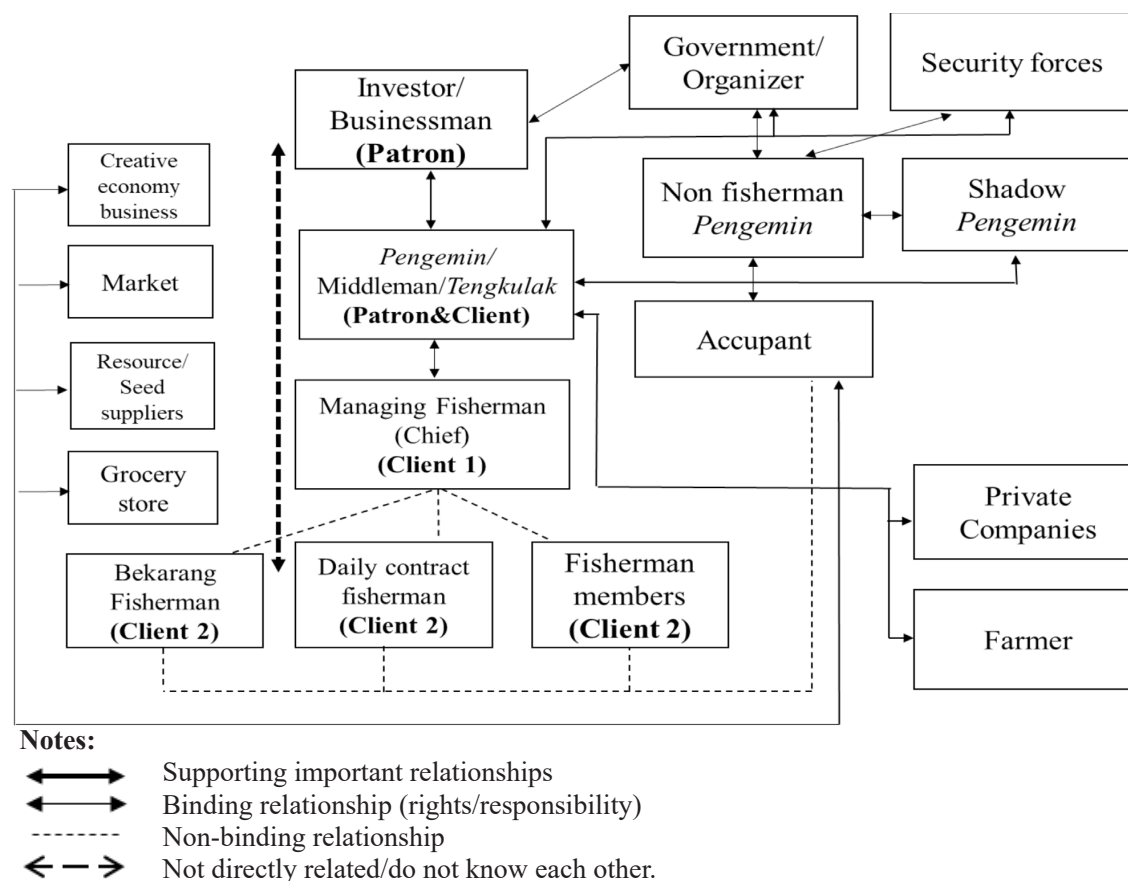


Figure 4. The complexity of the relationship between actors of L3S in OKI district

People's Welfare and the OKI District Fisheries Service serve as L3S organizers. They also collaborate with many agencies, such as the Community and Village Empowerment Service, the Regional Financial and Asset Management Agency, the Resort Police, the Regency Civil Service Police, and the Legal Section of the Regional Secretariat. Furthermore, security and inspectors are deployed on auction day as well as during the one-year lease period, as seen during the monitoring of fishing gear.

Pre- and post-fishing sectors. *Pengemin* is needed to understand the upstream and downstream of the business. *Pengemin* tends to have experience and a strong network with pre- and post-production, such as suppliers of materials, fish seeds, production equipment, wholesale shops supplying workers' daily basic needs, fishery product distribution markets, wholesale markets, and processing creative economic businesses requiring fish supplies.

Investors. The involvement of important people such as businessmen, regional officials, and members of the people representative council as investors for business and political interests.

New candidates for *pengemin*. After the regime transition, it has opened many pairs of eyes to the fact that the OKI fishery sector has great potential in terms of production or simply understands the material benefits of winning auctions. Numerous individuals attempt to try their luck in the fisheries sector, even without originating from expertise in this field. The formal male *pengemin* and the shadow *pengemin* play the roles of disturbing or threatening the old *Pengemin*.

Intersecting external parties. Farmers and private companies tend to intersect due to the use of similar objects. The L3S policy also regulates the alignment of agricultural and industrial activities without intersecting. *Pengemin* needs to establish good relations or special agreements to achieve equal justice for the sought-after object.

The result showed the structure of the complex relationships in L3S practice, which does not involve *pengemin* as patrons or fishermen as workers (Figure 4). Several actors are considered important for the sustainability of the fishing business in *Pengemin*. The individual feels capable and self-assured in participating as a prospective *pengemin*, as they possess a strong team within their business group with cultivated diverse relationships across various sectors. The actors assuming the role of *pengemin* are no longer primarily fishermen but also include investors, middlemen, and individuals unrelated to the fisheries sector. This shift in the composition of *Pengemin* actors reflects the evolving dynam-

ics of the industry.

Most *Pengemin* are middlemen or *tengkulak* with skills and knowledge related to the fisheries business from upstream to downstream. In the upstream sector, *Pengemin* adheres to a customer system at wholesale stores and suppliers of fish seeds and fishing equipment. Debt and delay systems can be applied to maintain a semi-binding relationship. This also takes place in the downstream sector, where the seller cooperates with various wholesale market traders in various areas, such as the 7 Ulu, 16 Ilir, 26 Ilir, and Jakabaring in Palembang, Kayuagung, and Prabumulih. It is common for traders to take it directly from the Fish Stop Warehouse or *Gudang Pemberhentian Ikan* (GPI), owned by *Pengemin*. Even though there is no specific agreement, *Pengemin* is trying to supply fish production in quite large quantities to its customer markets. *Pengemin* tries to find additional fish from other fishers when daily production decreases, and the binding system is proportional reciprocity. Systems of socioeconomic exchange between actors involve norms, values, and morality used to ensure long-lasting cooperation (Polanyi, 1992). Reciprocity is a type of attachment (Granovetter, 1992), and *pengemin* are loyal to maintain a customer relationship/*langgan* even though the purchase price is lower than other market traders.

Cooperation is occurring within numerous post-fish processing creative economy enterprises. These involve a diverse range of entrepreneurs, spanning from small and medium-sized to large-scale business owners. The entrepreneurs assume the crucial roles of primary financiers and influential patrons in the domain. They carefully select competent *pengemin* who possess the capability to meet their fish supply requirements. Particular attention has been drawn from regional officials who have expressed interest in these ventures. However, it is essential to adhere to the regulations outlined in the L3S Rules, as stated in Perda No. 18 of 2010, governing the management of L3S. Article 19 of the regulation explicitly prohibits the participation of auction committees, state officials, civil servants (PNS), and members of the TNI/Polri security forces as bidders. Consequently, prospective bidders must be individuals and not associated with these positions. It is imperative to recognize that certain investment officials may pursue actions to further their political interests. This motive is to mobilize mass votes during regional head elections by granting auction objects to specific residents. Ensuring ethical conduct and adherence to the established regulations is essential to maintaining the integrity of the process.

The regime transition has brought significant changes to the main rules governing L3S bidders. The restrictions that limited bidders solely to the local community and fishermen have been removed. This alter-

ation has led to increased participation of the formal men of *pengemin* and shadow *pengemin* in the bidding process. Consequently, the competition has intensified, resulting in higher demands from the old *pengemin* to safeguard their control over L3S objects and prevent them from changing hands. To maintain their influence over L3S objects, the old *pengemin* employed various strategies. One of the tactics is establishing favorable relations with prospective *pengemin*, including offering peace money, or “*uang damai*,” to their competitors. This practice is aimed at dissuading opponents from seizing the object of their interest. New players, particularly those dominated by non-fishing actors, often resort to requesting “peace money” from the old *pengemin*. They may use threats of competing in auctions and attempting to acquire the desired object when their demands are not met. Some new participants even form specialized groups and collaborate to accumulate capital, enabling them to outbid the previous *pengemin*. A crucial aspect of this system is the negotiating forum held before auctions, where *pengemin* discusses the terms of the peace money, and the practice has become firmly institutionalized. Consequently, the government thoroughly reviews the open access rules for L3S bidders. Ensuring transparency, fairness, and adherence to ethical principles in the bidding process is also essential to maintaining the integrity of the L3S system. The attention of the government is crucial in establishing a robust and equitable framework for all participants involved.

Different research delved into the reasons behind the smooth functioning, prolonged establishment, and institutionalization of systems that facilitate a negotiating forum between *prospective auction participants*. Several factors have been identified, namely: 1) a key contributing factor is the significant influence wielded by certain societal figures, such as thug, premans, or local strongmen, closely associated with influential actors despite lacking official or formal power. The presence of local strongmen indicates a weakness in the control mechanisms of a country (Migdal, 2004), 2) building good relations between the organizers/government and security forces such as police officers, and 3) demands receiving large auction results for regional revenues, allowing the government to apply an open competition system. The relationship structure formed is a consequence of changes in district L3S regime policies. Relevant to the theory of Kinseng (2021), the process of social change produces structural conditions in the presence of dominant and dominated classes.

The uniqueness of *lebak* and *lebung* in inland waters lies in the occurrence of the tidal system at the same location while serving distinct functional purposes. Perda No. 18 of 2010 concerning L3S elucidates the

regulations governing the interactions between *pengemin* and farmers, ensuring the proper conduct of fishing and agricultural activities. For instance, farmers are prohibited from fishing in paddy fields designated as object locations, while *pengemin* is restrained from interfering with rice field farmers. Consequently, *pengemin* is obligated to foster a harmonious relationship with the farmers to reach a consensus agreement that ensures the sustainability of both industries. There are also plantation companies such as PT. Sampoerna Agro Tbk and PT. Telaga Hikhah in the Pedamaran District, which are directly adjacent to the L3S object. In contrast, *pengemin* encounters numerous specific issues with the private sector surrounding the object due to concerns about waste disposal contaminating the L3S area. To mitigate these external conflicts, certain *pengemin* adopt measures involving negotiation and mediation with the government, seeking a fair resolution.

3.2 Discussion

3.2.1 The purpose of preserving patronage relationships

Social phenomena in society are formed from the actions of social actors based on goals, including patron-client relationships. The initial relationship was limited to fulfilling the needs for services and wages, and the goal was to perpetuate the bonded patronage relationship (Legg, 1983). In patronage relationships, the terms of reciprocity (exchange) do not typically connote strict equilibrium but rather a sense of balance, where each party anticipates mutual support from the other (Legg, 1983). However, clients often do not perceive this imbalance due to the security of social and economic assurances provided by the patron.

Scott (1993) explained the exchange theory, which distinguished commensurate forms of exchange fulfilling the reciprocity norm from non-commensurate forms leading to exploitation and subordination. Under these circumstances, the client may not be fully conscious of being ensnared in a challenging situation, making it arduous to break free. This can lead to prolonged poverty, exacerbated by the burdensome entanglements of debt schemes. However, some research has contested this notion, asserting that patrons also play a role in facilitating the success of their subordinates.

The perpetuation of patronage relationships is evident in the L3S patron-client relationship. Patrons carry out the duties of leaders who fulfill wage obligations and include an element of empathy for clients and their families (Table 1). *Pengemin* assumes the responsibility for the operational costs of the business and caters to the fundamental daily needs of its workers, including the families of those laboring for at least a

year, faithfully serving *pengem* as their patron. These needs encompass essential aspects such as consumption integrity, electricity, education of children, job placement for their offspring, opportunities for holidays, and addressing additional debts. However, it is important to note that *pengem* is not perceived as an infallible entity, and the support provided can be likened to granting loans at the outset. This is because the funding will ultimately be recouped through the revenue generated by the capture fishing businesses, quantified in rupiah. For one year, any disparities between the total results and outstanding debts led to the implementation of a profit-sharing system, distributing the proceeds in a 30-70% ratio between the chief fishermen and *pengem*. This debt-receivable system serves as a mechanism to ensure the steadfast commitment and loyalty of the managing fishermen. Some fishermen become ensnared in the misconception of enjoying absolute protection, failing to recognize the practical application of a business system as the benevolence of *pengem*.

The novelty theory of the positive function of patronage in L3S challenges Scott (1972) explanation of the patronage trap, where patronage creates a binding and difficult-to-break cycle. According to this perspective, a strong and binding patronage relationship with L3S (chief fishermen) yields positive outcomes, contributing to enhanced welfare for these individuals. This relationship is often described as “prosperous and difficult,” and when the bond between *pengem* (patron) and daily or non-permanent fishermen (client) is weak, the improvement of the fishermen’s welfare is not impacted. The cooperation system is limited to providing services and offering relatively low wages, which does not lead to substantial progress in their well-being. Comparing Mirajiani’s (2015) research on fisheries business patronage relations in the Ujung Kulon marine area, Banten, the flow of material benefits from patronage in the economic network of Bagan fishermen flows more to the patron, namely a Bagan owner. The client is a Bandega, or chief fisherman; trustees leading field activities also receive guarantees of permanent employment, provision of capital, facilities, and marketing services. The attachment is only due to debt instruments and work, whereas in the L3S case the attachment is also because the chief fisherman receives a large distribution of profits and can even increase his household assets, such as owning a house or vehicle, and can open small and medium enterprises (MSMEs) for his family members.

The illustration does not suggest that the position of chief fishermen as client is flawless. Despite the positive impact on their welfare, patronage relationships entail a sense of subordination. Chief fishermen who possess sufficient capital should have the opportunity

to elevate their status beyond being managing fishermen and become full-fledged managers. These capable fishermen cannot become part of *pengem* and assume a strategic position as patrons. The subsequent section delves into the capital requirements necessary to occupy such strategic positions, which include entities such as *pengem* and investors.

3.2.2 The urgency of capitals accumulation to achieve an important position

Actors occupy important positions in L3S, mainly as patrons, middlemen *pengem* (*tengkulak*), and post-harvest fish processing investors and entrepreneurs. In addition, some parties take an important part in benefitting from the opportunities, including the formal men of *pengem* and shadow. Bourdieu (2010) investigated the determinants that enable an individual to engage in competitive endeavors within a specific domain. The arena is characterized as a social space that conceptualizes social reality across diverse domains, where relationships between various agents interconnect and interactions take place (Bourdieu, 2010). There are several types of arenas, including economic, social, cultural, and political. According to Bourdieu (2010), there are four types of capital: economic, cultural, symbolic, and social. The results show that capital in society regarding L3S practices includes:

Social capital: a) establishing relations with related stakeholders, as well as the government, investors, and forces to ensure the security of fishing businesses; b) having a background of indigenous descent in the area (immigrants tend to find it difficult to enter the potential arena); and c) active in various community activities and associations.

Economic capital includes the empowerment of a person to access economic resources. An actor can meet the rental costs and operational financing, even though it involves investors. Furthermore, actors with economic income from multiple sources increasingly encourage auction wins. The accumulation of economic capital occurred when L3S became a hereditary family-owned business. The opportunities for accumulating economic capital increase by purchasing business and personal assets, as well as improving living standards.

Symbolic capital: cultural symbols strengthen position or self-actualization, and in the OKI community, the term thugs is known as *preman* or local strongmen. Generically, great actors are considered strong in economic and social aspects. These include bosses, car showroom entrepreneurs, landlords, contractors, and plantation landowners, creating a sense of reverence, respect, and fear among community members. Symbolic capital is also attached to religious, government, and

important social figures (youth associations, football clubs, RT, and RW associations).

Cultural capital is owned by the status achieved, such as educational level and employment. The results show that the level of education has no direct effect on the participation of actors such as *pengemin*. In comparison to job status, individuals with a more varied work experience tend to receive greater recognition for roles that significantly influence the life choices of people, such as village heads, DPR (People's Consultative Assembly) members, security forces, and government officials spanning from village to district levels. The L3S rules prohibit committee members, civil servants, security forces, officials, regional leaders, and representatives of people from acting as *pengemin*. Some individuals are identified as *pengemin* through designated representatives.

The research elucidates several aspects that have hitherto remained undisclosed within the parameters set forth by Bourdieu (2010). It serves as substantial fodder for theoretical critique, highlighting that the capital mentioned is insufficient in unveiling the background of an individual as a patron to obtain other advantages in L3S, as stated by Scoones (1998) and Ellis (2000). There is natural and physical capital, which are very influential (Nurlia, 2021). Natural capital appears to be associated with *pengemin* due to its frequent success in winning auctions at the same location in this context, referring to a specific L3S object. This object is considered a natural resource in the L3S setting, and physical capital entails the means of production established by *pengemin* in the *lebak-lebung* or river area. The developer intends to preserve this object in its current location to avoid unnecessary expenses and labor.

There is a motivational capital that has not been coined before by theorists but plays a major role in the L3S case. The special motives from the actors include 1) the desire to maintain the location for the sake of workers whose main livelihood is in the fishing business; 2) self-actualization as "*Tuan Lebak*," or competent *pengemin*; 3) to maintain a hereditary family business; and 4) special motives due to conflicts between *pengemin* which involve a feeling of wanting revenge, wanting to win, and proving. The six capitals described continue to be nurtured and tend to help them win in this L3S arena battle and even become a start for entering new arenas.

The result of the study exemplified the endeavors of actors in self-development (Figure 5). It portrays an experienced "A" entrepreneur who has amassed social capital by expanding their network, elevating their economic status, gaining recognition as an exceptional entrepreneur, and securing a well-established position. These four forms of capital have been effectively used to enter the new "B" economic arena. The crucial factor enabling this transition lies in the L3S rules, specifically the requirement that bidders may originate from any sector. Consequently, the actors participate in bidding with the belief that their capital positions them favorably for winning the auction. After becoming *Pengemin*, a formal figure who does not directly manage but tends to lease properties back to the fishermen, an opportunity arises for capital accumulation during the one-year leasing process. Furthermore, the economic profit becomes apparent, leading to an increase in economic capital. Symbolic capital experiences growth, contributing to their role as a businessman and *Pengemin*. Similarly, cultural capital is enhanced, positively affecting

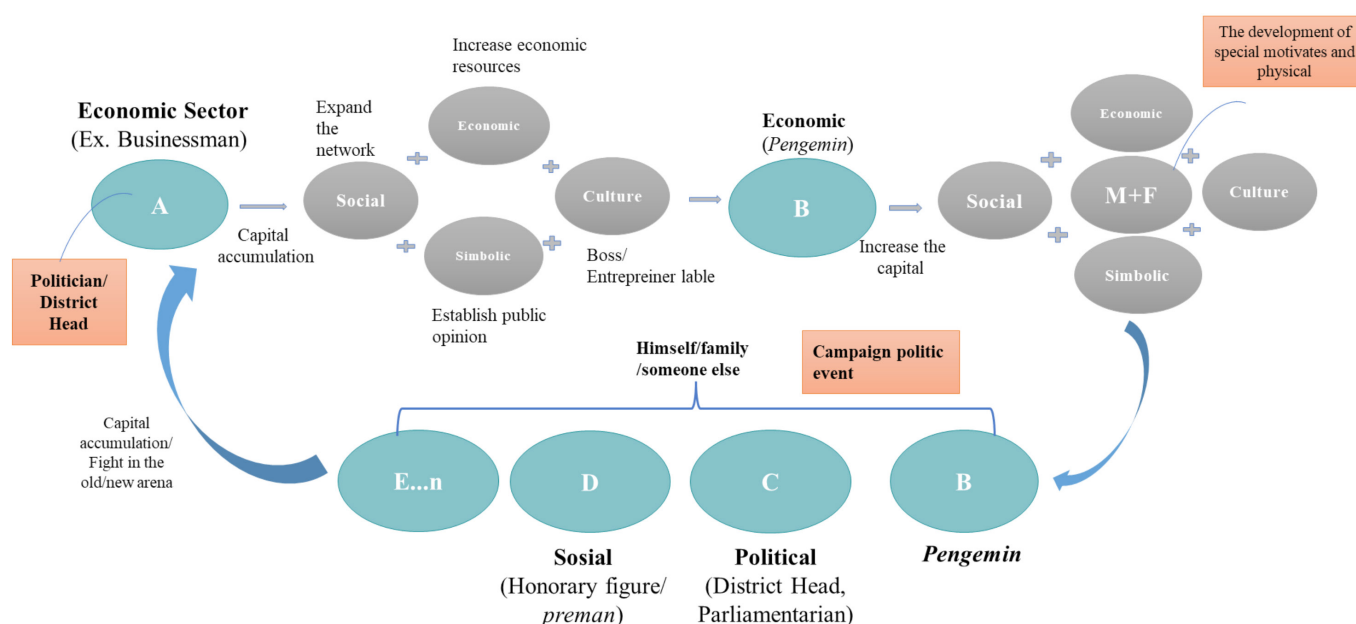


Figure 5. Expansion cycle of actors battle arena of L3S in OKI district.

their employment status. At this stage, physical and natural capital emerge, fostering the commitment to maintaining L3S objects in alignment with the principle of patron-client attachment.

The accumulation of capital sustains the L3S economic arena and extends its influence to other arenas, including the political sphere. Furthermore, *pengemin* endeavors to pursue positions such as head of the region or member of the representative council. This arena competition also involves the active involvement of family and closest associates to support their ambitions in the desired arena. A specific illustration of this phenomenon can be found in Belanti Village, Sirah Pulau Padang sub-district, where a candidate sought the assistance of “*tuan lebak*” or *pengemin*. The conditions are important, considering the ability of Tuan Lebak to mobilize the support of the people. Similar cases emerged within political parties, starting from the local level of village and district heads up to the position of governor. This phenomenon is employed by *pengemin* to consolidate capital, bolster their position, and perpetuate their competitiveness across different arenas.

The illustration represents several versions of *pengemin*, exhibiting a similar pattern. In addition, it features a seasoned fisherman who has assumed the role of *pengemin* for an extended period of time. Through the remarkable success of *pengemin*, the six capitals were accumulated, and expansion was initiated into diverse arenas, including politics, social affairs, spirituality, and various economic sectors. Consequently, L3S has transcended its initial relevance, which was limited to fishermen, based on these outcomes. It serves the interests of numerous parties seeking to enhance their self-actualization in society, despite their direct or indirect involvement with L3S.

The empowerment of local fishermen to conduct fishing activities is imperative. However, the existing structure of social relations has placed constraints, depriving fishermen of significant roles and an equitable distribution of benefits within the L3S system. The current rules governing L3S seem to favor external parties, prompting the need for the government to review the “bidder participant” rules. The government solely focuses on maximizing local revenue from auction results, compared to prioritizing the welfare of the fishing community. It is essential to consider the mounting intervention and pressure faced by *pengemin*, which is exacerbated by cases of irresponsible transfer of management rights. These conditions raise concerns about potential adverse impacts on resource degradation. Therefore, it becomes imperative to address these issues to safeguard the environmental integrity and livelihoods of local communities dependent on these resources.

Table 2. Ratio quantity of fish inland waters, OKI District

Common and scientific names of fishes in auction area	Ratio of fish quantity	
	Period (<2010)	Period (>2010)
<i>Snakeskin gourami (Trichopodus pectoralis)</i>	XXXX	X
<i>Climbing perch (Anabas testudineus)</i>	XXXX	X
<i>Striped snakehead (Channa striatus)</i>	XXXX	X
<i>Three spot gouramis (Trichopodus trichopterus)</i>	XXXX	XXXX
<i>Glass catfish (Kryptopterus bicirrhis)</i>	XX	-
<i>Bronze featherback (Notopterus notopterus)</i>	XXXX	-
<i>Tinfoil barb (Barbonymus schwanenfeldii)</i>	XXXX	-
<i>Giant freshwaters prawn (Macrobrachium rosenbergii)</i>	XXXX	-
<i>Philippine catfish (Clarias batrachus)</i>	XX	XXXX

Source: Nasution (2012); Yanti and Muthmainnah (2021)

Compared with other districts in South Sumatra, such as Muara Enin District and Muasi Banyuasin District, they have delegated the management of L3S back to the village or sub-district government, with recognition and sovereignty to determine L3S rules, including restrictions on bidders who can only be participated in by people who live in the village. (Hoggarth *et al.*, 1997; Yanti *et al.*, 2015). This is an important example of minimizing the domination of L3S object access to investors, even outside the village where the L3S object is located, especially if restrictions are made to determine the background of auction participants only from the fisheries sector, which further expands the distribution of fishermen’s benefits that have been confiscated by the elite of the dominant local area in terms of social and economic status. The current institutionalized social structure has positioned fishermen as subordinates. Furthermore, the current system has opened up market control, which encourages actors to become increasingly exploitative, and management needs to be revitalized, especially regulations that favor small fishermen.

4. Conclusion

In conclusion, the rule of open access to L3S for auction participants created an institutionalized structure of social relations where the government, investors,

traders, middlemen, and non-fishing actors dominate over the fishermen. The patronage system took place in groups implementing fishing business activities, namely *pengemil Tengkulak*, middlemen, investors, and entrepreneurs as patrons, chief fishermen, and little fishermen. Furthermore, patterns of patronage relationships were conducted similarly to previous experiences. The presence of unequal reciprocal relationships, binding credit schemes, and rights and responsibilities extending beyond other professional work patterns was observed due to elements of morality. The different phenomena were stratified distribution of rights, dual status, multi-stage patronage, and positive function of patronage.

This novelty was the result of the formation of an institutionalized relationship structure, which involved many non-fishing actors in important positions in L3S, such as entrepreneurs, investors, potential non-fisherman *pengemil* (the formal men of *pengemil* and shadow *pengemil*), and political figures. The primary obstacle hindering fishermen from assuming a central role in the economic use of L3S inland waters was the lack of essential capital, particularly economic and social capital. Additionally, non-fisherman actors were making considerable strides in amassing their capital to gain a competitive edge in the economic arena and expand their influence in the realms of social and political spheres.

The results should be a consideration for the government and stakeholders to pay attention to strategic steps in restraining the rate of degradation of public water resources. This enterprise necessitates a reevaluation of strategic water use regulations to achieve the dual objectives of boosting regional income and enhancing the welfare of small to medium-sized fishermen. Several measures were considered, such as the implementation of green auction rules, the establishment of empowered and supported fishermen groups, the introduction of a group capital system, the imposition of maximum price limits for fish sales, the establishment of standardized seed posts and production facilities, as well as facilitating the direct distribution of fish production to eliminate intermediaries. These initiatives created a conducive environment for sustainable growth and equitable benefits for all stakeholders involved. These models required the cooperation of many parties, including academics and the government, which might start with modeling research with data guidelines.

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Authors' Contributions

The contribution of each author is as follows, Fevi collected the data, drafted the manuscript, and designed the figures. The authors devised the main conceptual ideas, discussed the results, and contributed to the final manuscript.

Conflict of Interest

The authors declared no competing interests.

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