

**OCCUPATIONAL CHALLENGES ENCOUNTERED BY
SMALL - SCALE WOMEN FISH -VENDORS IN POZHIYOOR**

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ABSTRACT

Small-scale women fish vendors play a significant, yet often under-appreciated role in the fisheries sector worldwide. Operating in markets and coastal communities, these women actively contribute to their households' income and local economies. The study on the occupational challenges encountered by small-scale women fish vendors in Pozhiyoor sheds light on the role played by these vendors in the fisheries sector and the local economy at large. Despite the significant contribution the women fish-vendors make to households and communities, they face various obstacles in their daily business operations. This research investigates the specific aspects - adequacy of infrastructure, waste management, sanitation, transportation, financial literacy, and access to financial resources - that affect the working conditions of women fish-vendors. Given the deductive approach of the study, it employed a cross-sectional research design, and gathered data using a self-prepared interview schedule from 81 vendors who were selected using simple random sampling from an available sampling frame. The data was analysed using descriptive statistics.

The study revealed that most of the women fish vendors were married, had poor education, and hailed from large households of more than six members; the majority of them had been selling fish for more than 10 years. They worked in adverse working conditions considering that they had no shelter or storage facilities, had very limited access to water and sanitation, and with absolutely no arrangement for waste disposal infrastructure. Not being allowed to board on public transport, they had to depend on auto-rickshaws, which escalated the transportation costs and affected their livelihood. The fact that their livelihood depended on seasons, the perishable nature of the product (fish), the stiff competition and unregulated prices, the lack of adequate social security measures, financial support (bank) and the absence of savings all affected their livelihood and sustainability of their trade.

Based on the findings, recommendations are offered to enhance market infrastructure, especially by improving storage, waste management and sanitation so as to improve the shopping experience of the customers. Rescheduling transport routes, regulating the transportation, and providing fish-transport all would help to save time and money

improving sustainability of the trade. Special financing and social security with the collaboration of organisations - governmental and non-governmental - were also found necessary to support and empower women fish vendors and promote inclusive economic development. This study mainly emphasizes the significance of recognizing and addressing the occupational challenges faced by small-scale women fish vendors. By understanding their specific needs and experiences, tailored interventions and support can be implemented, fostering economic empowerment and sustainable livelihoods for these vital contributors to the local economy.

Key words: occupational challenges, small-scale women fish-vendors, sustainability, market infrastructure, transportation, financial literacy.

CHAPTER I: INTRODUCTION

1.1 OVERVIEW OF THE CHAPTER

The introduction chapter of this study provides a comprehensive overview of the research topic. The chapter includes a background section that provides context for this study. It highlights the significance of the fisheries sector and the crucial role played by small-scale women fish vendors in Pozhiyoor. Following this Clearly stating the problem or issues that research aims to address. It emphasizes the relevance and urgency of these problems and how they impact the livelihoods of the women vendors. In the Significance of the Study, discuss the importance and potential impact of this research. It primarily highlights how the study's findings can contribute to the existing knowledge on the Occupational challenges encountered by small-scale women fish vendors. And explain how the outcomes of this study can inform interventions, policies, and support mechanisms to enhance their life. It also includes chapterization of this whole study.

1.2 INTRODUCTION

Kerala is blessed with a Coastline of 590 kilometres, which accounts for almost 10% of India's total coastline. Given this coastline and an exclusive economic zone (EEZ) of 218536 Sq. Km., Kerala has a vibrant marine fisheries sector that has long been an important source of occupation and livelihood for the coastal population of the State. It is estimated that about 8 lakh people earn their livelihood from capture and allied works in marine fisheries in the 222 fishing villages situated along the coastline of the state. The coastal line spread over nine districts - Thiruvananthapuram, Kollam, Alappuzha, Ernakulam, Thrissur, Malappuram, Kozhikode, Kannur, Kasaragod. In addition to this, the state is blessed with 44 rivers, 49 reservoirs, 9 fresh water lakes, more than 65000 hectares of brackish water, more than 46000 hectares of backwaters and a number of ponds, irrigation tanks, streams etc. which contribute a rich resource of inland production. (Fisheries Department. Kerala.,2022)

At present, the marine fish harvest mostly centres around coastal waters up to 100 m depth, with about 90 % of the catch coming from up to 50 m depth. The fishing pressure near the shores have gone up considerably during the recent years with most of the species being over-exploited. To protect and conserve the fishery resources and to aid fish-hatching, the Central Government has taken several measures and has declared a fishing ban for a period of 61 days in both the East and West coasts of India every year.

Recognizing the important contributions of artisanal and small- scale fisheries to employment, income and food security, the States and mostly an active federation of fishermen have been actively engaging in protecting the rights of fishers and fish workers, particularly those engaged in subsistence, small-scale and artisanal fisheries. Kerala and the fisheries sector in particular have witnessed tensions emerging out of attempts to secure preferential access to traditional fishing grounds and resources in the waters under their jurisdiction. It is against these that commercial deep-sea fishing industry operate Commercial fishing, also known as industrial fishing, is the activity of catching large volumes of fish and other seafood for commercial profit, mostly from wild fisheries. This industry provides a large quantity of food to many countries, mostly the developed. Although those who practice it as an industry must mandatorily pursue fish far into the ocean, large-scale commercial fishing boats foray into the shallow waters with dragnets often scourging the coral reefs and disturbing the hatcheries meant for the traditional fishermen. (Fisheries Department. Kerala.,2022)

TRADITIONAL FISHING INDUSTRY

The traditional fishing industry holds deep historical and cultural significance in coastal communities around the world. Traditional fisheries have been an integral part of India's coastal communities for centuries, serving as a vital source of livelihood, cultural heritage, and food security. The traditional fishing practices and techniques employed in various regions of India have sustained generations of fishermen and their communities. India's vast coastline, stretching over 7,500 kilometres, offers diverse marine ecosystems and abundant fishery resources. Marine Fisheries in addition to providing food security, also provides direct employment to over 1.5 mn fisherfolks besides others indirectly dependent on the sector. In total, there are an estimated 3,432 marine fishing villages and 1,537 notified fish-landing centres in 9 maritime states and 2 union territories, India. Fisheries are estimated to currently provide 16% of the world population's protein-need.

Traditional fishing communities have thrived along the coast, utilizing their traditional knowledge and expertise to sustainably harvest fish and other marine resources. These communities often operate within close-knit social structures, with the knowledge and skills of fishing passed down from one generation to the next. Traditional fisheries in India encompass a wide range of fishing methods, including shore-based fishing, small-

scale artisanal fishing, and traditional boat-based fishing. These methods employ various techniques such as nets, hooks, traps, and traditional fishing crafts like catamarans and dugout canoes. The fishermen rely on their deep understanding of local marine ecosystems, seasonal patterns, and fish behaviour to maximize their catches while minimizing the impact on the environment. The traditional fishing industry not only supports the livelihoods of fishermen but also contributes significantly to the local economy and food security. Fishermen bring their catches to local markets, where they are sold to consumers and contribute to the availability of fresh fish in coastal communities and nearby regions. Additionally, traditional fisheries play a vital role in preserving cultural traditions, as fishing customs, rituals, and folklore are deeply intertwined with the way of life in coastal areas. However, traditional fisheries in India face a multitude of challenges. Overfishing, habitat degradation, climate change, and unsustainable practices pose threats to the sustainability of fish stocks and the livelihoods of fishing communities. Moreover, the changing socio-economic landscape, infrastructure limitations, and market dynamics present additional obstacles for traditional fishermen to navigate.

In terms of total fish production, India ranks second globally, following China. According to data from Fishstat, FAO in 2009, India produced 7.3 million tonnes of fish in 2007. Inland fisheries play a crucial role in ensuring food security as nearly all of the production is used for human consumption. Fish holds significant importance for economically disadvantaged sections of the population as it serves as an affordable and easily accessible source of protein and essential micronutrients. Additionally, a considerable portion of the population relies on both marine and inland fish resources for their livelihoods, employment, and income. As of 2020, the fisheries sector contributed around 1.24% to India's Gross Domestic Product (GDP). India is one of the largest producers of fish globally, with a substantial share in both marine and inland fish production. According to the Ministry of Fisheries, Animal Husbandry, and Dairying, the total fish production in India reached a record high of 14.88 million metric tonnes during 2019-2020. Marine fisheries contribute significantly to total fish production, with major coastal states like Gujarat, Tamil Nadu, and Kerala being important contributors. Inland fisheries, including ponds, lakes, reservoirs, and rivers, also make a substantial contribution to fish production, particularly in states like West Bengal, Andhra Pradesh, and Odisha. The fisheries sector is a significant source of

employment, especially for coastal communities and rural areas. It provides direct and indirect employment opportunities in activities such as fishing, processing, marketing, and aquaculture. According to the National Fisheries Development Board (NFDB), the fisheries sector employs over 16 million people in India. (Kumar, K.G. (Ed.), 2010)

FISHERIES SECTOR IN KERALA

Fisheries play a crucial role in Kerala's economy, as it is a coastal state located in the South West of the Indian peninsula and bordered by the abundant marine life of the Arabian Sea. The state boasts a coastline stretching approximately 590 km, with a territorial limit of about 22 km from the shore. Within this area, covering around 13,000 square kilometers, marine fishermen from Kerala are permitted to operate. The shallow seabed encompassing Kerala spans approximately 3919 square kilometers and is highly fertile for fisheries in the Arabian Sea. Apart from contributing around 3% to Kerala's economy, fisheries also generate significant foreign exchange earnings and foster positive international relations for the state. The fisheries sector in Kerala is a prominent and expanding industry that has been experiencing steady growth of 5-6% over the past thirty years. Kerala's fisheries sector is abundantly blessed with vast resources and serves the export market in destinations such as the United States, Europe, and Asia.

The fishing industry in Kerala encompasses fish catching, processing, and marketing, and it offers employment opportunities to over 350,000 individuals, accounting for approximately five percent of the state's workforce. This industry plays a vital role in preserving our foreign exchange reserves by making valuable contributions to our exports. Kerala holds a dominant position among the coastal states in India when it comes to exporting marine products. Similar to its significant contribution to marine fish production, Kerala also makes a tremendous contribution to the earnings generated from the export of marine products. According to the 2005 census, there are approximately 147,875 active fishermen in the marine sector and 42,593 in the inland sector.

Despite Kerala's coastal line being less than 10% of the country's total coastal line, its waterfront accounts for approximately 25% of the country's fish catch. In economic terms, the fish caught by around 200,000 active fishermen contribute around 1.86% to the state's net domestic product. Kerala holds the largest share of exports in the fishing sector among all the states in India. (Salim, S. S., Antony, B., & Geetha, R., 2011).

FISH VENDING

In the state of Kerala, fish vending is a traditional occupation that has provided a means of livelihood for thousands of people, with a significant majority of fish vendors being women. These women engage in various aspects of the fish trade, adopting different methods to procure and sell fish to meet the demands of consumers.

Fish vendors in Kerala typically acquire their fish from landing centres, where they actively participate in daily auctions of the fresh catch. They may also purchase fish from local traders, merchants, or wholesale markets for resale in retail or local markets. In addition to their role as intermediaries, vendors often contribute to the value addition process by sorting, grading, cleaning, and icing the fish to maintain its freshness and quality.

The fish sold by vendors in Kerala can be categorized into two main types. First, there is fresh fish that is carefully stored in ice to preserve its freshness. This fresh fish is then sold in local markets or transported to distant markets. Fish vendors play a vital role in ensuring the availability of fresh fish to consumers, whether they are local residents or buyers in distant regions. These vendors may operate in traditional marketplaces or offer door-to-door sales services, catering to the diverse preferences of customers.

Secondly, fish vendors in Kerala also handle processed fish products such as salted, dried, or smoked fish. Women, in particular, are often involved in the traditional methods of processing these fish products. They carefully prepare and preserve fish using time-honoured techniques, including salting, drying, and smoking. These processed fish products are predominantly sold in local markets or supplied to merchants who transport them to other markets.

The active involvement of women in the fish vending sector of Kerala not only contributes to their own economic well-being but also plays a vital role in the preservation of traditional knowledge and practices related to fish processing. By engaging in these activities, women contribute to the local economy, the preservation of cultural heritage, and the availability of diverse fish products to meet consumer demands. (Kumar, K.G. (Ed.), 2010).

TYPES OF FISH VENDORS

Fish vendors can be broadly classified under the following categories

1. **Stationary vendors who vending on a regular basis at specific locations:** A significant number of fish vendors in Kerala operate within designated wholesale or retail markets. They transport fish from the landing centres to these markets using hired trucks or mini-vans. Some vendors purchase fish from wholesale markets and sell it at retail markets, while others function as wholesale suppliers themselves. Additionally, vendors often procure fish directly from landing sites for sale in roadside markets, commonly referred to as "natural markets," where they have been congregating and vending fish for generations. Many fish vendors also sell their catch at the landing sites themselves, including harbours and beaches
2. **Peripatetic vendors who walk from place to place to sell their fish:** Typically, these women fish vendors are the ones who directly purchase fish at auctions conducted in village markets, wholesale markets, or landing centres. They adopt a door-to-door selling approach, traveling on foot and carrying their fish in bamboo baskets or aluminium vessels. These dedicated vendors serve as a primary source of fish supply to consumers residing within coastal areas or in proximity to them. Their commitment to delivering fresh fish to households plays a vital role in meeting the local demand and ensuring a steady supply of seafood in these communities.
3. **Mobile vendors who move around on bicycles or motorized vehicles:** This type of fish vending, although prevalent in states like Orissa, is primarily carried out by men. These male vendors travel from various villages to the landing centres, where they participate in fish auctions held in village markets, wholesale markets, or landing centres. They procure fish through these auctions with the intention of selling it back in their respective villages. Additionally, these vendors engage in door-to-door sales, bringing fish directly to the households within their communities. (Kumar, K.G. (Ed.), 2010).

This study focus is specifically on the stationery women fish vendors in Pozhiyoor. The stationery fish vending sector in Pozhiyoor plays a significant role in the local fish trade and the overall fish supply chain. These vendors are an integral part of the community's access to fresh fish and seafood products. They serve as key intermediaries between fishermen or fish wholesalers and the end consumers, ensuring the availability of fish in the local market. By focusing specifically on stationery women fish vendors, the

study aims to explore the challenges and issues they may face in their businesses. The objective is to conduct a study to identify and understand any Occupational challenges that may exist within this specific segment of women fish vendors in Pozhiyoor. By shedding light on these challenges, the research aims to provide valuable insights for potential interventions, support systems, and policy recommendations to improve the well-being and economic sustainability of stationery fish vendors. The ultimate goal is to empower these women vendors by addressing the specific challenges they face, enhancing their opportunities for growth and success, and promoting a more inclusive and equitable fish vending sector in Pozhiyoor.

WOMEN FISH-VENDORS IN KERALA

The state of Kerala, located in the southwestern part of India, is known for its rich aquatic resources and a vibrant fishing industry. Within this industry, women play a significant role as fish vendors, actively participating in various stages of the fish value chain. Women fish-vendors in Kerala contribute to the socio-economic fabric of the state by engaging in small-scale fish vending activities, bridging the gap between the fishers and the consumers.

Women fish vendors in Kerala play a multifaceted and integral role in the fishing industry, contributing significantly to the economy and the overall well-being of local communities. They are involved in various activities related to fish vending, such as purchasing fish from fishermen or fish markets, processing and preserving the fish, and selling it to consumers in local markets, households, and even distant markets.

The importance of women fish-vendors in Kerala extends beyond their economic contributions. They serve as a crucial link in the distribution of fish, ensuring its availability to both local communities and distant markets. Moreover, their participation in the fish trade promotes gender inclusivity and empowers women by providing them with a means of livelihood, economic independence, and decision-making opportunities.

One of the key contributions of women fish vendors is their role in ensuring the accessibility and availability of fish to the general public. They act as *intermediaries* between the fishers and the consumers, bridging the gap by bringing fresh fish directly to the local communities. Their presence in local markets and neighbourhoods enables

consumers, including households and restaurants, to access a diverse range of fish products conveniently.

Women fish-vendors also contribute to the economic empowerment of their households. Many of these women engage in fish-vending as a *primary source of income*, allowing them to contribute financially to their families' welfare. Their earnings not only support their immediate household needs but also play a vital role in education, healthcare and other essential expenses.

Moreover, the participation of women in the fish trade contributes to economic empowerment which augments *gender equality* and women's empowerment in Kerala. By engaging in economic activities traditionally dominated by men, women fish vendors challenge societal norms and stereotypes, expanding their roles beyond the domestic sphere. This economic empowerment enhances their decision-making abilities, boosts their self-confidence, and improves their social standing within their communities. (Kumar, K.G. (Ed.), 2010).

1.3 SCOPE OF THE STUDY

Thiruvananthapuram has the largest number of fisher folk engaged in fishing-allied activities (39%), and the majority of those involved in the marketing of fish also belong to the district (58%). Most fishing villages in the district have their basis in small-scale fisheries, which account for a large percentage of the state's income. (Ani Benedict Aneesha, 2017)

Fish production and exporting of fish which is increasing year by year and why the economic and social condition of these people remain unchanged. The scope of this study, " Occupational challenges encountered by Small-Scale Women Fish - Vendors in Pozhiyoor," is focused on examining the Occupational challenges specific to women engaged in small-scale fish vending in the locality of Pozhiyoor. The study aims to gain an in-depth understanding of the issues faced by these women vendors and provide insights into their experiences. The study will primarily concentrate on women fish vendors in Pozhiyoor, a specific geographical area within Thiruvananthapuram, Kerala. It will consider their socio-economic context, including market dynamics, infrastructure availability, financial literacy and financial constraints.

It is important to note that the study's scope is limited to the specific Occupational challenges faced by women fish vendors in Pozhiyoor. It does not encompass a comprehensive analysis of the entire fishing industry or the experiences of fish vendors in other locations within Thiruvananthapuram or Kerala. However, the findings of this study may have broader implications for similar contexts and can contribute to a better understanding of the challenges faced by women fish vendors in the fishing industry.

1.4 STATEMENT OF THE PROBLEM

Small scale women fish vendors are the main component of the fishing industry. Although women form the bulk of the vendors, women vendors sell the goods on roadside or in fish markets. Essentially, these spaces are harsh and present challenging working conditions especially in terms of infrastructure and hygienic conditions. Despite the crucial role played by these women vendors in the local fishing industry and their contribution to the economy, their unique challenges in their space of occupation have received limited attention. Hence, the study aims to enquire into the challenges faced by women engaged in small-scale fish vending in the specific locality of Pozhiyoor. By focusing on Pozhiyoor as a distinct geographic location, the study seeks to shed light on the specific contextual factors that shape the experiences of women fish vendors in this area. Through attempting a cross-sectional study, the researcher intends to examine issues that affect the sustainability of their vending trade which perceptively involves infrastructure in market, transportation, and financial literacy. This study intends to provide valuable insights and recommendations to address these challenges and foster the socio-economic advancement of small-scale women fish vendors in Pozhiyoor. Also seeks to identify and understand the Occupational challenges that hinder the economic empowerment and well-being of these women fish vendors. Understanding the specific Occupational challenges they encounter is essential for developing targeted interventions and policies to support their economic empowerment and improve their living conditions.

1.5 BACKGROUND OF THE STUDY

Fish vending is a significant economic activity in many coastal regions of India, including the state of Kerala. It serves as a traditional occupation that sustains the livelihoods of numerous individuals, with a notable proportion of fish vendors being women. These women fish vendors play a crucial role in the fishing industry, acting as

intermediaries between fishermen and consumers, ensuring the availability of fresh fish in local markets, and contributing to the local economy.

In the state of Kerala, fish vending has been an integral part of the cultural and economic fabric for generations. The coastal locality of Pozhiyoor, situated in Thiruvananthapuram district, is one such region where small-scale women fish vendors actively participate in the fish trade. However, despite their significant contributions, these vendors face various Occupational challenges that hinder their economic empowerment and overall well-being. While existing literature acknowledges the importance of women fish vendors in the broader fishing industry, limited research has been conducted specifically focusing on the unique experiences and challenges faced by small-scale women fish vendors in Pozhiyoor. Thus, there is a critical need to explore and understand the Occupational challenges that these women encounter in their daily lives as fish vendors.

By delving into the background and contextual factors specific to Pozhiyoor, this study aims to provide a comprehensive understanding of the challenges faced by small-scale women fish vendors in the region. This understanding can serve as the foundation for formulating targeted interventions and policies that address their specific needs and enhance their Occupational opportunities. Moreover, examining the Occupational challenges faced by women fish vendors in Pozhiyoor will contribute to the existing literature on gender dynamics, informal sector entrepreneurship, and women's economic empowerment within the fishing industry. By filling the research gap and generating evidence-based findings, this study seeks to contribute valuable insights to academics, policymakers, and stakeholders, with the ultimate goal of fostering the Occupational advancement and well-being of small-scale women fish vendors in Pozhiyoor, Thiruvananthapuram.

1.6 RELEVANCE AND SIGNIFICANCE OF THE STUDY

Fisheries sector is one of the important contributors to national income of India. Kerala is one of the coastal states in India. Fisheries sector is an unorganized sector where men and women fish vendors play a very important role in fish marketing. Vendors are the direct link between wholesalers and customers. Vendors know the pulse of the marketplace, and this becomes all the more possible being attended by women who are

generally patient and also aware of the household preferences. However, women encounter various kinds of problems.

The study has the potential to address critical issues and contribute to the empowerment and well-being of women fish vendors in the specific context of Pozhiyoor. By focusing on this specific group within the fishing industry, the study not only highlights their unique experiences but also hints on the broader issues of gender equality, informal sector development, sustainable livelihoods, local economic development, and policy formulation.

Women have a very significant role and presence in the fishing industry. Studies highlight the value of women's work in fish processing and trading activities and the significant contributions of women in the fish value chain and the need to recognize and empower women in the fishing industry (Pedroza-Gutiérrez and Hapke, 2022). Such an understanding is crucial for understanding the economic importance of women's roles in the fishing sector. The present study highlights the significant role played by women vendors in the economic sustainability of their households. As suggested by Pedroza-Gutiérrez and Hapke (2022) there is a need to integrate the concepts of situated knowledge and feminist commodity chain analysis to explore women's contributions to fish economies. This approach resonates with this understand the challenges faced by women fish vendors and their unique perspectives in the fish vending industry.

By identifying and addressing the barriers of the women fish vendors, such as limited market access, inadequate public transportation, and financial problems, the study can contribute to creating a more inclusive and equitable environment for women in this traditionally male-dominated sector. Additionally, the study's exploration of the challenges specific to informal sector entrepreneurship in fish vending provides valuable insights for policymakers and stakeholders. It can inform the design of interventions and policies that support the formalization of informal enterprises, leading to improved working conditions, access to resources, and economic opportunities for women fish vendors.

The study's findings also have implications for sustainable livelihoods within the fishing community. By addressing the Occupational challenges faced by women vendors the study contributes to enhancing their economic resilience, reducing poverty,

and improving the overall well-being of the women and their families. This, in turn, supports the long-term sustainability of the local economy and the fishing community. The insights gained from this research can help shape targeted policies and interventions that address the identified problems and promote the economic empowerment of small-scale women fish vendors in Pozhiyoor. This has the potential to create positive socio-economic change at both the individual and community levels. By addressing the specific challenges faced by small-scale women fish vendors in Pozhiyoor, the study aims to bring about positive changes that empower women, enhance their economic opportunities, and foster inclusive and sustainable development in the fishing industry and the local community.

1.7 CHAPTERIZATION

The whole study is divided into six parts and they are as follows,

- Chapter I Introduction: The chapter gives an introduction to the research topic, including the background and problem statement and highlights the significance of the study. It also elaborates on the scope of the research.
- Chapter II Literature Review: Presents a comprehensive review of relevant literature on similar themes of the study. It also includes theoretical framework which supports the study, summarizes previous research conducted in similar contexts and Research gap.
- Chapter III Methodology: The methodology followed in the present study is given in this chapter including the objectives, research design and approach used in the study, universe and unit, sampling strategy and participant selection. details on Pre-test, data collection and analysis etc.
- Chapter IV Data Analysis and Discussions: The results of analyzed data are presented in this chapter as tables and figures. It is divided into socio-demographic details, Infrastructure and Working Conditions, Transportation Challenges, financial literacy of the vendors and the Major occupational challenges encountered small-scale women fish - vendors in Pozhiyoor.
- Chapter V Findings, Suggestions and Conclusions: The chapter summarizes major findings of the study. It also put forward suggestions, implications and recommendations for further research. Acknowledges the limitations of the study and Conclusion of the whole research is also given.

CHAPTER II: LITERATURE REVIEW

2.1 OVERVIEW OF CHAPTER

The analysis of prior and current studies that are relevant to the research at hand, as well as the identification of research gaps in those earlier studies, are two key tasks that has to be undertaken while conducting research. It aids in gaining a comprehensive understanding of the issue and raises the standard of empirical investigation. This chapter is written to establish the requirement of the current study by reviewing previous studies based on similar themes. Thematic analysis is used to conduct review of literature and different themes discussed under the review of literature include,

- Importance of small-scale fisheries
- Women in fisheries sector
- Challenges of women fish vendors.

2.2 THEMES

2.2.1 SMALL SCALE FISHERIES SECTOR

Small-scale fisheries make an important contribution to nutrition, food security, sustainable livelihoods and poverty alleviation, especially in developing countries. Despite this significant contribution, the issues constraining the sustainable of small-scale fisheries remain poorly understood. FAO has recently developed a vision for small-scale fisheries where: their contribution to sustainable development is fully realized. It is a vision where small-scale fishers and fish workers are not marginalizes and their contribution to national economies and food security is recognized, valued and enhanced. It also recognizes that these people should be empowered to participate in decision-making with dignity and respect through integrated management of the social, economic and ecological systems underpinning small-scale fisheries. B. Satia, staples and Gardiner P R, (2004)

Small-scale fisheries play a significant role in enhancing livelihoods, creating employment and contributing to food security especially in developing countries. Rural fishing communities are highly dependent on natural resources, which are climate sensitive. Many research efforts have been made to understand the impacts of climate change on fisheries and fishing economies. However, little attention has been given to understand the challenges experienced by small-scale fishing communities in

developing countries in Africa. This article assesses non-climate change and climate change induced challenges according to the experiences of the gillnet small-scale fishers of Sanyathi fishing basin of Lake Kariba, Zimbabwe. Thematic content analysis was used to analyse interview transcripts. The study results showed that declining fish catches is one of the major challenges experienced by fishers. The main themes that emanated as the challenges faced by fishers are food insecurity, wildlife attacks, lack of access to information systems, lack of fishing equipment, the existence of the predator crayfish, poor lake co-management and shrinking fishing boundaries. Overall, the study found that fish production is negatively affected by several political, economic and environmental factors. Muringai Rodney, (May 2020)

Small-scale fishermen account for up to 95% of all fish captured in Tanzania, making them the industry's dominant force. Inadequate infrastructure, such as a lack of processing and cold storage facilities, subpar transportation, and fishing equipment that increases post-harvest losses, place restrictions on small-scale fisheries. Small-scale fishermen lack the resources and expertise necessary to purchase contemporary fishing technologies. Additionally, social-demographic characteristics of the fishermen—such as their level of education, gender, age, and degree of experience—have an impact on their access to fishing resources and capital, which affects the amount of fish they can catch and their post-harvest losses. As a result, this study investigated the variables that affect fish spoilage and catch in small-scale fisheries in Tanzania's Bagamoyo District. Interviews were conducted with forty randomly chosen fishermen from the fishing town of Mlingotini. According to the findings, fishermen catch an average of 18.5 kg of fish after investing an average of 11 hours in each fishing trip. The amount of fish caught varied depending on the fisher's level of experience, age and sex, level of education, and amount of time spent selling the fish. 10% on average of each fishing session's fish weight is lost to spoilage. The amount of spoilage changed depending on the fisher's age, sex, degree of education, level of experience, length of fishing session, and type of fishing gear. To decrease spoiling, it is advised to offer training in fish handling and processing as well as to improve cold storage and transportation facilities. Mramba, R. P., & Mkude, K. E. (2022)

Small scale fisheries can be considered as a collective effort by society particularly in developing nations where people in the community are involved in building their

economy through trade. The societal roles focus on livelihoods and poverty alleviation of its people. The small-scale fisheries supply chain begins from the time when people go fishing. It is not an easy task as sometimes they have to travel the whole day and if they are fortunate, they may find a school of fish. Sleep and energy are sacrificed to catch fish. During the process of harvesting, the society invests in vessels/boat building, gears, refrigerated sea water systems etc., while the community's monthly/daily spending is on items like fuel, boat captain and crew salary, maintenance, and engine repairs. The economic development of the small-scale fisheries society arises from the trade with processors in the supply chain. The small-scale fisheries sector contributes almost half of the global fish catches and it provides a source of food for domestic and international markets. Ahmed Rashid, (2021)

2.2.2 WOMEN IN FISHERIES SECTOR

According to Rajan.J. B, (2001) The small-scale fishing sector has undergone significant changes, and these changes have an impact on post-harvest operations, particularly for women who work as fish vendors. Fish vending women play a crucial role in fish commerce, connecting fishermen and consumers. They handle various functions, including trade and aids to trade, removing hindrances in fish exchange. Unlike traditional commerce practices, they handle these activities themselves. Their earnings are influenced by uncertainties in procurement and selling prices, but they employ strategies like multiple sourcing and multiple destinations to cope with risks and maximize profits. This study reveals that fish vending women face hardships and low dignity in their work, impacting their lives. While transportation has reduced physical strains, the perception of low dignity remains. Market difficulties and the foul smell of fish contribute to this perception. Mothers discourage their daughters from pursuing fish vending due to its perceived lack of dignity. The hand-to-mouth earnings from fish vending also lead to poor socio-economic conditions in their households.

Chandrika Sharma, (2010) in his report reveals that, women fish vendors play crucial role in a country like India, catering to the food security needs of a diverse range of consumers. Fish vending provides employment and livelihood to lakhs of people, primarily women. Steps need to be taken in an integrated manner, drawing on available policy and legislative frameworks, and on the steps already being taken by State and Central governments and their institutions, to support this important segment of the

population. Existing gaps in policy and implementation must be systematically addressed.

Anitha et al., (2014) in their study reveal that, women form a major part of the fisheries in Kerala especially in the southern region of Kerala. This paper analysis the challenges and issues faced by the women fish vendors in unorganized markets (street markets) in Trivandrum. The paper illustrates the challenges faced by retail women fish vendors specifically in the unorganized markets. The external and internal environment (analysis) help to analyse the money management, work life balance and other work-related issues faced by women in unorganized fisheries sector. The paper aims to bring an in-depth analysis of selective cases from Trivandrum.

Ekanem Etuk et al., (2015) in their study carried out to analyse the poverty status of dry fish vendor households in Lower Cross River Basin, Nigeria. The specific objectives were to; estimate the mean expenditure on basic consumption items of fish vendor households, determine the influence of socio-economic characteristics of the respondents on their poverty status and estimate the determinants of poverty amongst fish vendor households. Primary data collected were analysed using descriptive and inferential statistics (Logistic regression). The monthly mean per adult equivalent household expenditure of the households was \$29.78 (N 4,764.48) out of which poverty line of \$ 9.93 (N1, 588.16) was estimated. Results of FGT decomposition revealed that poverty incidence for the study area is 0.569. The head count index was calculated at 56.9% while poverty gap was 48.0%. Logistic regression result showed that except for age, and marital status, all other explanatory variables were found to be significant predictors of poverty among dry fish vendors in lower Cross River Basin. The variables include; ownership of assets variables is necessary to reduce poverty among dry fish vendors in lower Cross River Basin. Educational status and ownership of assets reduce the probability of being poor, while larger households, longer periods in fish vending (experience) and fish vending as a major occupation are associated with a higher chance of being poor. Policy interventions that target these predictor variables are necessary to reduce poverty among dry fish vendors in lower Cross River Basin.

Diana Tempelman, (1987) attempted to examine the socio-economic status of the fisherwomen in the coastal villages of Vishakhapatnam District, Andhra Pradesh. The study could identify that the women get themselves engaged in marketing of fish for 7-

10 hours a day. They generally, carry this for sales in their overheads. For them, to cover a longer distance, buses are the major mode of transportation. For selling within the town's limits, bicycles and auto rickshaws are important means of transport. The study arrived at the conclusion that the women vendor, on the average gets higher revenue when compared to revenue from coir making and other small business activities.

Narayanakumar et al., (2000) in their study have examined the socio-economic conditions of marine fisherwomen. The study could identify that the marine fisherwomen are socially and economically weaker. The study could conclude that improvement in fishing technology has increased the fish yield and as a result, the women vendors are able to get more fish for sales resulting in higher revenue of the women fish seller.

Radhakrishnan and Sellammalle, (2000) in their study have examined the role of fisherwomen in Pondicherry. The study could come out with the conclusion that the entry of women in fish sales has reduced the entry of middlemen resulting in higher revenue to the fishermen. The earnings of the fisherwomen, has helped to gain empowerment in their society. The study has also provided the interesting conclusion that the earnings of fisherwomen is higher than the fishermen. The study identified that the average value of assets of the fisherwomen has increased.

The study Mahesh et al., (2014) indicated that a major share of the fishing community's livelihood dependents on fishing and sales. In the earning process, the study could identify that the role of fisherwomen is of paramount importance. While 52 per cent of the Women are engaged in fish processing, another 42 per cent are engaged in marketing and distribution of fish produce. The study could also find that the fish vending provides the female folks the highest income and the level of income depends on the number of working hours. The study viewed that higher the level of earnings, higher is their decision-making power at home and vice versa. In fact, the study could view that the earnings of the female folks due to engaging in subsidiary activity is higher than the earnings of their counterparts at home. The study could also identify that the factors like, the amount of investment, the level of education, the family size, the earnings of the family do all influence their earnings.

Shyam s Salim, (2001) in the Book titled “Women Empowerment and Fisheries Sector in Kerala” Opined that fisherwomen have greater exposure to media and spend more time in their primary occupation compared to women in other fields. It was also mentioned that decision-making power differs across different operations and is comparatively lower for women than men. The suggestion put forward emphasizes the importance of recognizing the evolving roles of women in fisheries and aquaculture. It advocates for the development of technology specifically tailored to women, involving social workers, NGOs, and policy-making bodies to promote women's activities in fisheries. Furthermore, the recommendation includes creating exclusive schemes and training programs for women, providing them with credit facilities and market access, and introducing female extension workers.

Warrier S. (2001) conducted a study on the fish processing industry in India, with a specific focus on issues related to migrant women workers. The fish processing industry hires migrant women workers on contractual terms in various parts of the country. The study involved using a detailed questionnaire to gather information from the workers. Additionally, data collected from observations and informal discussions with women workers were supplemented with information obtained from the villages where the women were recruited, as well as from their friends, neighbours, and relatives. These multiple sources of data formed a significant portion of the research database.

Nag et al., (2003) discovered that the biological and environmental aspects of work were relatively more significant stressors for women working in fish processing. This finding was supported by the high prevalence of musculoskeletal pain and discomfort reported by these women, with 67 percent experiencing such issues. The most affected area was the lower back (45 percent), followed by the shoulder (20 percent) and upper back (25 percent). The study also observed cold-induced blanching and numbness of hands, as well as Raynaud's-like phenomena, among 61 percent of the women workers. The data indicated that wearing gloves had a substantial positive impact on the hand's skin temperature profile compared to working with bare hands. This observation was further supported by significant improvements in the onset of Raynaud's phenomena.

According to Raghunathan A.V, (2005), there has been a significant increase in the number of Self-Help Groups (SHGs) formed by women in coastal villages in the Cuddalore district following the tsunami attack. Over 175 new SHGs were established,

with more groups still being formed. In the aftermath of the disaster, fisherwomen, who had lost their sources of livelihood, found the concept of SHGs appealing for their rehabilitation and economic empowerment. The financially strained women believed that joining SHGs would enable them to earn a decent income and provide immediate financial assistance to their households. The fisherwomen recognized the strong support for the idea of SHGs, which motivated the proliferation of these groups, as they were in dire need of funds for their daily needs. The SHGs received training in modern trade practices, such as utilizing solar devices for fish drying, crab fattening, and preparing fish pickles, among other skills.

Immanuel and Rao, (2009) conducted a study on fisherwomen in a village in Andhra Pradesh, gathering data from 1,180 respondents. The study provided insights into the women's domestic and professional lives, highlighting areas where improvements can be made to enhance their well-being

Tewari R et al, (1998) studied group of 60 fisherwomen, aged 20 to 50 yrs. to evaluate their occupational workloads. Of the eight activities involved in fish handling, only four, viz., sorting, washing, drying, and selling, which are most frequently carried out by the fisherwomen, were selected. The heart rate responses and rating of perceived exertion (RPE) were used as measures of occupational workload. Based on the findings, the occupational workload could be classified as moderately heavy. A significant influence of age and body weight on the physiological workload was observed, being negatively correlated with age and positively with weight.

Khadar et al, (2005), studied role of women in fisheries in coastal eco-system of Andhra Pradesh, Karnataka, Kerala and Tamilnadu and revealed that fish eaters in the study area comprised 47 per cent of the total population 237 per cent in Tamil Nadu to 85 per cent in Kerala. It found that though the position of Tamil Nadu in terms of number of coastal districts and possession of coastal line including the number of landing centres were more, the number of fish eaters in the state was minimal. It further revealed that Andhra Pradesh employed 32 per cent of its fisherwomen in fish curing/drying/net making and 27 per cent in processing plant works.

Khadar et al, (2006), assessed nutritional status and socioeconomic empowerment of fisherwomen in the coastal ecosystem of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu and indicated that very few households (15.4 per cent) maintained livestock for

46 Income generation. About 60 per cent of the fisherwomen carried out post-harvest activities to earn income. It further revealed that food expenditure comprised 60.7 per cent of the earned income contributing to the major share of spending. It found that debt servicing was a serious problem faced by 44.9 per cent of the respondents who had procured loans mostly from non-institutional sources.

In a case study of three fishing villages of Kerala, Gulati, (1984) has observed that women's work participation has changed qualitatively and quantitatively and independent self-employed women have become employees for men engaged in prawn processing.

Vijayan and Nayak (1997a and 1997b) have concluded that women's role is undergoing significant change with the advent of commercial fishing, and as a result fisherwomen are side tracked by larger male merchants and are slowly being marginalized from the marketing process in Gujarat and Maharashtra.

Vijayan et al.,(1997) highlight the need to safeguard the spaces women occupy in fisheries in the context of modernization and a programme of action should find solutions to the problems of exploitation of women in Kochi, Kerala.

According to Gracy, (1997) establishment of credit and marketing co-operative societies managed by women is the solution to the serious problems faced by women fish workers in Karnataka.

Nayak and Navta (1997) have examined the problems of women fish processors and dry fish vendors of Andhra Pradesh and concluded that they are forced to give up their traditional occupation of fish drying and vending due to scarcity and high prices of fish, and most women are caught in the debt-trap.

Nayak (1997) has looked into the marine fisherwomen's struggle against displacement due to military installations, construction of hatcheries and tourist complexes in Orissa and observed that they play a vital role in the struggles for survival of their families and communities.

Immanuel Sheela and Srinath Krishna (2000) studied "Potential Techno-Economic Role of Women in Fisheries". The study revealed that women contribute a lot to fisheries sector. In coastal areas, women play an important role in fisheries and in some parts of the world they are good navigators too. Modernization has diminished the role

of fisherwomen but yet they play an important role in the fishing activity. The author suggest that women should be helped to participate in production activities without disturbing their domestic responsibilities.

Nair, Mini (1998) studied “Women in fisheries –Emancipation through cooperatives”. The study revealed that fisherwomen are relegated by fishermen since they feel fisherwomen are involved in less productive areas like fish vending and other post-harvest activities. Fisherwomen engaged in fishery related activities are marginalized due to technological changes. This has affected not only their individual income but also the income of their families.

D’Souza, Samantha (2020) his research paper “Unmasking the silent role fisherwomen play in the small-scale fisheries local value chain in India” aims to uncover and reveal the various roles and tasks carried out by women involved in small-scale fisheries along the East and West Coast of India. The study adopts a gendered value chain approach to identify the involvement of women in both the productive and reproductive sectors. It also emphasizes the obstacles and difficulties faced by these women while performing their activities. Additionally, the paper highlights the positive impact of Self-Help Groups (SHGs), Federations, Cooperatives, and advocacy networks in improving the lives of these women. Furthermore, the analysis examines the extent to which international, national, and state-level policies and programs address the gender-specific needs of fisherwomen and promote their inclusion

This study aims to examine the violations of human rights experienced by female fish vending laborers in Tamil Nadu. The findings of the study revealed that the majority of women involved in fish vending face various forms of violation and are deprived of their fundamental human rights within the marketplace. Additionally, the study recommended conducting further research on the health aspects affecting women in the fishing industry to improve their quality of life. The study utilized a combination of qualitative and quantitative approaches, employing a case study method to identify the main activities and issues. Stratified random sampling was utilized to select a sample of 450 women fish vendors from 111 villages in Tamil Nadu as the study area for identifying the challenges and problems encountered by these women. The overall condition of the fishing community, especially the women involved in fish vending, is extremely distressing and pitiable. They are subjected to various forms of exploitation

and oppression. These women endure societal stigma, which significantly lowers their self-esteem and value. Traditionally, women in fish vending societies have been actively engaged in economic activities such as net making, fish processing, storage, and selling. However, the introduction of machine-made nets has eliminated an important source of income for them. As the men's real income continues to decline, women are compelled to seek employment outside the home. Instead of looking down on them, society should appreciate their contributions. Unfortunately, these women face economic and social marginalization and hold little power within their communities. The fishing community as a whole, and the fish vending women in particular, are at the mercy of an advancing society and chaotic market forces. The widening disparity between this sector and others makes them vulnerable to human rights violations. Shalini, J. M., Rajan, A. J., & Divyaranjani, R., (2018).

Leon, (2003), a faculty member in the Department of Social Work at Loyola College of Social Sciences in Trivandrum, conducted a study on "Fisherwomen in Kerala, India." According to his study, fisherwomen face numerous occupational hazards, and their basic human rights are explicitly violated. They endure physical and psychological violence both at home and in the marketplace, as well as during their travels to purchase and sell fish. Despite being the primary breadwinners in their families, they lack access to resources and often live in disadvantaged conditions. It is worth noting that women engage in fish vending only after marriage, and they are compelled to take up this occupation against their mothers' wishes. This lack of choice in determining their course of action or future represents a fundamental violation of their human dignity.

P. Aswathy & K. Kalpana (2018) in their study titled "Women's work, survival strategies and capitalist modernization in South Indian small-scale fisheries: the case of Kerala,". This study examines the role of women's work in fisheries within the Global South, particularly in sustaining small-scale fishing amidst challenges from corporate-backed industrial fishing. The study focuses on the impact of capitalist modernization on the work dynamics of artisanal fisherwomen in a Latin Catholic fisher village in Kerala, India. Through ethnographic research and qualitative methods, the paper investigates women's interactions and conflicts with new actors in commission shops, seashore auctions, and public fish markets. The review explores women's survival strategies in response to increased competition in the vending business and analyses their implications for collective action in improving work conditions and advocating

for the rights of artisanal fish workers. In conclusion women vendors in the village faced heightened competition and experienced a sense of disempowerment in the evolving systems of fish procurement, distribution, and marketing. Overall, the findings indicate a gendered power dynamic within the fish trade, where women vendors faced subordination and exploitation in their interactions with male actors in various roles.

Carmen Pedroza-Gutiérrez and Holly M. Hapke (2022) in their study titled “Women’s work in small-scale fisheries: a framework for accounting its value, Gender, Place & Culture” focuses on developing a theoretical framework to analyze the ways in which women's involvement in fish processing and trade activities generates value and contributes to the competitive advantage within the fish value chain. The study aims to explore how the labour of women in processing and trading activities adds value to fish, and proposes a theory of value that better recognizes and incorporates women's contributions to fish economies. The framework integrates the concepts of the Resource-Knowledge-Based-View, which emphasizes the role of situated knowledge in creating capabilities, and the Feminist Commodity Chain Analysis, which examines how women's activities generate value at different stages of the value chain. By applying this framework to small-scale fisheries in Mexico and India, the research highlights two important findings: a) women's work in these fisheries leads to the emergence of valuable assets, and b) recognizing and understanding where and how women create value and profit at each stage of the fish value chain is essential in making gender disparities visible. Acknowledging the value of women's work is crucial for empowering them and shedding light on an often-overlooked workforce.

Harper, S., Zeller, D., Hauzer, M., & Pauly, D. (2013). In their study titled “Women and fisheries: Contribution to food security and local economies”. Focuses on the significance of women's involvement in fisheries is often disregarded in management and policy frameworks. However, there is an increasing acknowledgement of their contribution, even though there is limited quantitative data available to fully comprehend the extent of their participation and impact. This research provides a comprehensive overview of the existing knowledge regarding women's engagement in marine fisheries worldwide and offers an estimation of their contribution in the Pacific region. While the extent of women's involvement varies across different geographic areas, in the Pacific, they are responsible for 56% of the annual catches in small-scale

fishing, which translates to a substantial economic impact of 363 million USD (with a total revenue of 110 million USD). Recognizing and quantifying the role of women in fisheries carries significant implications for effective management strategies, poverty reduction efforts, and development policies. The study concluded that the valuable role played by women in fisheries, both in direct and indirect capacities, is frequently disregarded in fisheries management, economic evaluations, and subsequently, policy-making processes. This study aims to quantify women's participation in fisheries, specifically highlighting their contribution to the overall catch and the economic value generated for small island nations in the Pacific region.

Zhao, M., Tyzack, M., Anderson, R., & Onoakpovike, E. (2013), in their study titled "Women as visible and invisible workers in fisheries: A case study of Northern England. The study specifically examines the significant roles played by women in this region and aims to advocate for gender equality and increased participation of women in the industry. By providing independent evidence, the research seeks to contribute to policy-making processes. The paper analyses the key roles undertaken by women and their contributions in four specific sectors: capture fishing, family and community involvement, trading, and processing, as well as management and administration. It identifies the primary challenges and obstacles that hinder women's equal treatment, full engagement in the industry, and effective participation in policy-making activities within the country. The primary data for this research was collected through observation and semi-structured interviews. A total of 51 interviews were conducted in seven key port towns or cities in Northern coastal areas of England, predominantly in fishing ports. The study reveals that women in the fishing industry in England are often marginalized, undervalued, unpaid or underpaid, and have limited influence in decision-making processes at various levels. A significant finding of the study is the low representation of women engaged in shipboard production. Only four women in the case study areas were identified as having experience working on fishing vessels. Some of the female participants also reported instances of bullying and sexual harassment from their male colleagues on board. However, the study highlights the passion and concern demonstrated by the women interviewed, regardless of their anxieties or desire for improved status or position. The prevalence of masculinity within the industry was mentioned by nearly all interviewees. While this may suggest that women have internalized dominant cultural norms and conventions, it is important to

note their interest in exploring innovative approaches to sustain the industry and their pride in their contributions to their businesses.

According to Barsoum Ghada, (2021) study titled “From Fisher wives to fish vendors: Gendered livelihood transitions in a fishing village in Egypt” focuses on women in fishing communities elsewhere, play a crucial role in the fishing industry. When there is a severe decline in fish stocks in this coastal area, households experience distinct gender-based changes in their means of making a living. Most able-bodied men tend to seek employment opportunities elsewhere, leaving the women behind to face a situation of poverty and navigate multiple changes within their households, local markets, and communities. Although the cultivation of fish through aquaculture provided livelihood options for these women, the process of transitioning was filled with risks and difficulties, both in terms of market dynamics and within their own households. The availability of various forms of capital, such as human, financial, and social resources, largely determines the scope and challenges involved in these shifts in livelihood. This research relies on qualitative information gathered from both individual and small group interviews conducted in a fishing village situated on Lake Qarun in Fayoum. Qualitative research offers valuable insights into the intricate dynamics that unfold in situations of poverty and rapid transitions. The findings of this study reveal that the women in this community have undergone various transitions beyond the shift from being fisher wives to becoming fish vendors. One crucial aspect is that the transition to fish vending is often accompanied by husbands who are absent from the community, leading to worsened conditions of poverty. These accompanying circumstances play a significant role in the challenges faced during the transition. Like women in fishing communities in other locations, women in the Lake Qarun area of Egypt are actively involved and not idle. The qualitative data presented in this study demonstrates that women have historically been engaged in various forms of work both within and outside their households in this fishing community. The relatively low participation of women in the labour force in Egypt and the Middle East is frequently attributed to cultural norms and patriarchal structures.

Blase (1982) in his study on “Coastal Village Development in Adirampattinam” reports that among fisherwomen, many are engaged in drying and selling fish, especially those of the poor sections. Engaged in this are almost all women from families with little or no equipment and also widows who have to support themselves. Fisherwomen also

procure fish at auctions and sell it to the nearby agricultural villages, reaching there by bus or on foot or selling it in weekly markets.

Drewes (1982) has conducted a study in three villages near Madras, which reveals that women play a more important economic role. They sell the fish and receive the money. They are therefore in a strong position to decide whether the money is to be saved or spent. They participate in decision-making on the buying of nets, boats and other fishing equipment's. But women are not allowed to take part in village meetings. Religious and cultural belief and customs bear harder on women than on men. Most women have a good deal of leisure time. There is therefore a pool of potentially productive labour that is underutilised.

The BOBP (1984) points out that the role of women in the fishing communities vary in different geographical areas of Sri Lanka. On the north-western coast, they own and rent fishing equipment's and even participate in active fishing. On the southwestern and western coasts, they participate in fish trading, fish processing and net mending. On the eastern and north-eastern coasts, their participation in fishery activities is minimal, being confined to fish processing. In many areas, modernisations in transport and infrastructure facilities have deprived women of traditional occupations such as fish vending, processing and net mending.

Kalavathy (1985) described the role of women in marketing at Madras fishing harbour. They acted as auctioneers, retailers, wholesalers, trash fish merchants and some of them were able to enter into the men dominated export sector also. Majority of the auctioning women gave loans to boat owners to obtain the auctioning right for boat catches. It was a highly profitable business. Apart from conducting auctions, fisherwomen were mostly retailers and wholesalers too, but only at a low level of investment.

Morales (1988) reports that women, in addition to their domestic duties, usually harvest fish; make and mend fishing gear; process, preserve and market the catch as well. All these tasks are absolutely crucial for the survival and welfare of their families and community. Despite their important role, most women in fishing communities are powerless and vulnerable. Many of them are illiterates and have little or no say in making decisions in areas, which affect their lives. Recent development efforts have shown that improvements in the productivity and lives of fisherfolk depend upon the recognition of women's vital role. Development work must support fisherwomen in

their domestic, economic and social role and provide them opportunities to acquire appropriate technologies enabling them to make the greatest possible economic and social contribution.

Purushan (1995) has observed that in the age-old practice of aquaculture, major role is played by men alone. The womenfolk come to the picture only during harvest. With the advent of modern technology in aquaculture, the role of women has considerably increased. In the potential field of scientific shrimp farming, feed preparation seems to have great scope for gainful employment. On imparting proper training to women, the easily available waste materials such as prawn shell, head and fishmeal could be made useful ingredients for the shrimp feed.

A mission was conducted by William et al (1996) to collect information on the economic role of women in fishing communities of Koko, Nigeria, to describe all the sources of employment for the women in the communities and to determine the daily real income of the fisherwomen. Given the prevailing economic situations in the country, the women fisherfolk were going through hard times, volumes of catches were dwindling, spoilage was increasing, while other sources of employment were fast disappearing. They concluded that steps must be taken to improve the wellbeing of the fisherfolk in that area, who were quite willing and ready to utilize such assistance judiciously.

Lilian Fay-Sauni (1998) explains the involvement of women in fisheries in the Pacific Island. Women are extensively involved in many types of fishing activities in the Pacific Island nations. These activities range from collection of reef invertebrates of fish, to the processing and marketing of fish and fishery products. Until lately, their role in fisheries in their countries have been underestimated and overlooked mainly due to the fact that fisheries are commonly meant for “men” only. Women’s fishing activities are mainly confined to shallower inshore and reef areas even though some do have accessibility to fish offshore using motorised crafts and canoes. Substantial changes over time in the role of women in fisheries development have taken place.

Sujatha (1999) describes the post-harvest activities of women in fisheries in Vishakhapatnam coast, where 30-40 per cent of the fisherwomen participate in the operations. Fisherwomen’s role as a petty trader, however, is related to the sustenance of their families. Almost all the women vendors cover the entire distance of about 15-

20 km from fish landing centres to marketing places by walk. Similarly, their role in the auctioning of fish harvested mainly through artisanal fishing is of crucial importance.

According to Yadav and Juneja (2000), traditional involvement of women in the retail fish trade have made them indispensable in this sector. The retail fish trade involves aspects of fish handling, preservation, processing, marketing, pricing, credit, borrowing, accounting, saving etc. Women have shown their capabilities and adaptability to all aspects of the skilled profession. In the process, their knowledge and interest are passed on from generation to generation in a natural manner. Rural women in Orissa, West Bengal, Kerala and some other parts of the country are expanding their activities to net-weaving and mending, fish breeding and commercial aquaculture. Aquaculture is the farming of aquatic organisms like fish, shrimps, molluscs and seaweeds. Fish farming has gained roots in all parts of the country and is presently being considered as a viable means of employment for the rural population and women are expected to play a pivotal role in the furtherance of aquaculture.

Fisherwomen constitute 48.6 per cent of the total adult population in the fishing villages of India (CMFRI, 2006). Their role performance in various avocations besides household activities would have an impact on their standard of living. Apart from the household and procreational activities, the various roles played by fisherwomen, in order to raise the income of the family and the life style, have been evaluated by many authors.

Ramani (2004) in her work on “A study of the Economic Activities of the marine fisherwomen in Ramanathapuram District, Tamil Nadu, India” has concluded that women in fishing community play a major role in almost all the shore-based activities in addition to their domestic duties. Development programmes in fisheries give priority only to large-scale operations and to male dominated production activities. The contributions and needs of the fisherwomen are completely ignored which results in underestimating and undervaluing of their economic role.

Jese Verebalavu¹ (2009) in her paper says that even though artisanal fisherwomen have never been educated about basic business management, they have learned a lot about it first hand, over the years by selling at the markets. They have also gained knowledge about the importance of keeping their resources as clean and hygienic as possible for

the market. Hygiene is illustrated in the type of preservation and packaging of their resources. Income generated from artisanal fisherwomen, small business owners, and female employees of the two fishing companies have a multiplier effect on their families and communities. The contribution of women in industrial fisheries have a huge impact on the individual fishing companies and nation as a whole. In both fishing companies, more than 50 per cent of the employees are women. A significant contribution of the income generated by women in both artisanal and industrial fisheries go towards their children's education (e.g., primary school, high school and tertiary level). This research has noted that women's involvement in fisheries in Fiji, although under-reported, has a significant socioeconomic contribution towards their household, community and nation as a whole

2.2.3 CHALLENGES OF WOMEN FISH VENDORS

Srinath (1998) has conducted a study in a coastal village Chellanam in Cochin, Kerala to understand the needs and problems of the community with special attention to gender related issues and specific areas where women could play a role in solving the problems. The fisherwomen in this area are organised into a charitable society "Matsyamahilavedi" with 120 members. The criteria for empowerment include income generation, skill development, use of new technologies, increased awareness, decision-making, communication, group action etc. Based on the needs, resources and interests of fishermen and women, technologies for income generation, drudgery relief and primary health care are identified. Educating the fisherfolk on improved fishing methods, increasing fish production by small farmers, involving women in fish production, improvement of their skill in utilisation of local resources for income generation and organising health and nutrition awareness programmes have been planned, and implemented mainly for women.

Williams et al., (2002) in their paper remarked that, fisherwomen are able to contribute effectively for fisheries development, through their increased participation in decision making. Fisherwomen face a whole series of complex, cultural, social, traditional, economic and legal constraints that even poor men do not face and therefore, society has to consider women's participation in all activities that could bring about a sea of change in the process of improvement of social structure as witnessed in China. In this context, the present study attempts to discuss the decision-making behaviour and the

characteristics which played a dominant role in their involvement in decision making of fisherwomen of Dakshina.

Bavinck et al., (2008) in their study reveal that, the closed fishing season has a profound impact on the livelihood of the fish vendor women. Some women indicated that they experience a total loss of income, and have difficulties making both the ends meet and credit is in high demand

Weeratunge et al., (2010) in their study state that ‘in the enormous task of raising credit to keep the household functioning day by day, the fisher women are aided by their ability to mobilize different kinds of social relations: network of kinship, neighbourhood, friendship and work’. Another possible way to raise credit is to join a chit fund. This is run by a group of women in which woman each deposit a small amount of money each month to the person who owns the chit fund. When a woman is in need of a large sum of money, she can draw the amount from the chit fund but has to pay a penalty sum and has to pay back the amount of money to the chit fund later. At the end of a certain period, normally a year, every woman gets her deposit back, with interest. The ‘penalty sum’ for redrawing money from the chit fund is lower than the interest paid to a money lender, so it is an interesting alternative. However, the system only works if the group is not too big, and the women in the group know each other well enough to create the social control mechanism of keeping with the rules of the fund.

Nikita Gopal et al., (2007). Fisherwomen play a crucial role in various fisheries-related occupations. Across the country, their contribution is particularly noticeable in fish processing and marketing. Women's involvement in post-harvest operations has had a positive impact on their social status and economic empowerment. By participating in these activities, women have been able to increase their family's income, thereby contributing to sustainable livelihoods and enhancing social well-being. In India, an estimated 0.15 million women are engaged in the seafood processing sector, primarily at the grassroots level within the units. This industry has served as a significant source of employment for women in coastal regions, playing a vital role in improving the socio-economic conditions of impoverished fisherfolk in the country.

Pomeroy, R., Arango, C., Lomboy, C. G., & Box, S. (2020), in their study titled “Financial inclusion to build economic resilience in small-scale fisheries “focuses on

Fishing households and their enterprises have few choices for financing and managing cash flow for personal necessities or business investments because to a lack of access to banking institutions. Informal lenders, who may also be the main consumers of fish or the boat owners, fill the access gap. Financial inclusion, usually referred to as access to formal financial services, can strengthen the financial resilience of rural fishing households. The article examines the present obstacles to financial inclusion for small-scale fishing households, including their lack of formal identity, low financial literacy and capability, lack of collateral assets, and distance from banking institutions. Additionally, it discusses ways to overcome these obstacles, such as promoting financial literacy, de-risking financial institutions, gathering financial data, offering a variety of financial services besides credit, and comprehending the needs of the client, all of which will help fishing households maintain control over their income and savings. The study finds that, financial inclusion poses challenges for small-scale fishing households, including inadequate financial knowledge and skills, absence of valuable assets for securing loans, physical remoteness from financial institutions, and absence of official identification. Enhancing financial inclusion can mitigate the various vulnerabilities faced by impoverished fishing households and rural communities, fostering greater economic resilience.

Bene, C., & Friend, R. M. (2011).in their article titled “Poverty in small-scale fisheries: old issue, new analysis” in this paper revisits some of the long-held notions about poverty in small-scale fisheries using a new paradigm that combines vulnerability and exclusion as two fundamental aspects of poverty. We contend that there is more to the problem of poverty in fishery-dependent communities than a straightforward link between the two. It is necessary to do a more detailed analysis that takes into consideration the variety of fishing-related livelihoods and the complexity of poverty-related factors that exist both within and outside the industry. In addition to income, the article emphasises how poverty in fishing villages is frequently related to a wide range of socio-institutional issues, such as land ownership, debt, access to health care, education, and financial resources, as well as exclusion from political decision-making. The inland capture fisheries from the Volta and Mekong basins are utilised as empirical examples be applied to other inland and coastal fisheries in developing nations. According to the study's findings, there is no systematic or obvious link between fishing and poverty. However, a large portion of literature and policy narratives continue to

characterise small-scale fishing as a last-resort activity carried out primarily by the poor (or perhaps the poorest of the poor). According to the article, fishing contributes to livelihood strategies in so many diverse ways that it is challenging to support such oversimplified, reductionist conclusions. This article argues that severe economic, political, and institutional marginalisation of fishing communities in general—which causes the majority of fishers to live in poverty—rather than these fishers' low productivity as a whole is the primary cause of poverty in small-scale fisheries (Allison et al., 2006; Bene, 2003). This results in the majority of fishers being denied access to economic institutions (such as effective loan markets or robust labour markets) or makes the poor's access to these institutions too expensive from a transactional or economic standpoint.

Singh, Katar (1994) studied “Marine fishermen Co-Operatives in Kerala.” The study revealed that the socio-economic condition of most of the fishermen in Kerala has not improved significantly as a result of the establishment of fishermen Co-Operatives.

Nirmal Chandra et al., (2009) in their article remarked that the fisherwomen of Gopalpur have a vibrant organisation called ‘Kalinga Fish Workers Union’ that fights for their rights. Women also assert their rights through self-help groups (SHGs) and through participation in the Panchayat. Girl children are now sent to school. Women in the area with the help of the local NGOs began to protest against child marriages and child labour. They have also fought against illegal taxes. The economic contribution of fisherwomen to their families is quite significant. The income of the fisherwomen is mainly determined by the amount of time allocated to collection, processing and marketing of fish. The age, body weight, marital, maternity status and education do not significantly influence their income. They spend bulk of their time on fishery and household activities. There is no scope for leisure and pleasure. They are being exploited by the middlemen and traders belonging to their own community and others. The fisherwomen are aware of the conditions of sustainability such as diversity, alternative sources of income, community harmony and familial equilibrium. Their traditional ecological knowledge (tek) needs documentation recognition and appreciation. The natural fishery capital stock in the sea and land resources in the coast needs protection. The fisher people's council should be recognised as a socio-political institution.

Menezes (1991) studied about “Improving Marketing Conditions for Women Fish Vendors in Besant Nagar, Madras.” A fish market constructed by the Corporation of Madras run exclusively by women fish vendors came up in Besant Nagar. The BOBP for Fisheries Development provided expertise including the services of a social worker to help train the women in community organization. It also helped the women liaise with the Corporation and other organizations. The Fisheries Department extended its co-operation and assistance, particularly in the training of women. The social worker helped to train the fisherwomen in fish marketing.

Jessy Thomas (1989) a study conducted among the fisher men in Kerala about the socio- economic factors influencing the educational standards found that, most of the fisher folk are illiterate and they wish their children to be educated but the low income of the fishermen hinders them to send their children to school. In order to help the family to have a stable income most of the boys take up fishing as their traditional occupation.

2.3 RESEARCH GAP

Limited Studies has been conducted specifically focusing on the Occupational challenges faced by small-scale women fish vendors in the locality of Pozhiyoor. While there may be existing studies on the broader fishing industry or women in the informal sector, there is a research gap in terms of examining the unique challenges and experiences of women engaged in small-scale fish vending in Pozhiyoor, Thiruvananthapuram. This research aims to address this gap by conducting a comprehensive investigation into the specific Occupational challenges encountered by women fish vendors in Pozhiyoor. By focusing on this specific geographical area and the unique context of small-scale fish vending, the study intends to contribute new insights and knowledge about the challenges and constraints that hinder the economic empowerment and well-being of these women vendors.

Additionally, the research gap may also lie in the limited understanding of the intersectional factors affecting women fish vendors in Pozhiyoor. These factors could include the influence of caste, religion, age, and educational background on the Occupational challenges faced by these vendors. Exploring these intersectional dimensions will provide a more nuanced understanding of the experiences of women

fish vendors and can contribute to designing targeted interventions and policies to address their specific needs.

By filling this research gap, the study aims to generate evidence-based findings that can contribute to the existing literature on women's economic empowerment, informal sector entrepreneurship, and gender dynamics within the fishing industry.

CHAPTER III: METHODOLOGY

3.1 OVERVIEW OF CHAPTER

The methodology section is of paramount importance in research as it serves as the foundation for the entire study. It outlines the research philosophy, as well as the specific methods and techniques employed to collect and analyze data, ensuring the study's validity and the accuracy of its findings. A well-designed methodology enhances the credibility of the research.

The chapter begins by outlining the research design chosen for the study, The rationale for selecting the particular research design is provided, taking into account the research objectives and available resources. Next, the chapter discusses the participants and sampling methodology and explains the sampling technique used to select participants. Details about the sample size, inclusion/exclusion criteria and the data collection methods employed in the study are provided. Then the chapter moves on to the data analysis techniques utilized to analyze the collected data. Following these ethical considerations are addressed, emphasizing the steps taken to ensure participant privacy, confidentiality, and informed consent. Lastly, the methodology chapter acknowledges and discusses the limitations, Assumption and scope of the research.

3.2 TITLE OF THE STUDY

Occupational challenges encountered by small-scale women fish-vendors in Pozhiyoor, Thiruvananthapuram District.

3.3 OBJECTIVES

General objective

To understand the occupational challenges encountered by small-scale women fish-vendors in Pozhiyoor, Thiruvananthapuram District.

Specific objectives

- To understand the socio-demographic profile of small-scale women fish-vendors in Pozhiyoor
- To assess the adequacy of the existing infrastructure within the market environment, affecting the operations of small-scale women fish-vendors in Pozhiyoor
- To assess the adequacy of transport services available to small-scale women fish-vendors for accessing markets and customers

- To assess the knowledge and practice of financial literacy among small-scale women fish-vendors in Pozhiyoor
- To identify the challenges encountered by small-scale women fish-vendors in sustaining their fish-vending business

3.4 VARIABLES

Independent Variables

- **Socio-demographic factors:** The indicators for sociodemographic factors include:
 1. Age
 2. Education
 3. Household composition, and
 4. Income

Dependent Variables

- Infrastructure/Working Conditions
- Transportation
- Financial Literacy

3.5 DEFINITION OF CONCEPTS

Theoretical Definition

Occupational challenges: Occupational challenges as "the demands, stressors, or obstacles that individuals face in their work environment that may hinder their performance, well-being, or job satisfaction" (Ford & Wirth, 2010, p. 2).

Operational Definition

Occupational challenges: In the context of this study, Occupational challenges refer to the challenges and obstacles encountered by small-scale women fish vendors in Pozhiyoor encompassing various aspects, including,

- i) the adequacy of market infrastructure - including physical infrastructure - shelter, seating; sanitation and hygiene Infrastructure - including toilet, availability of water for washing and cleaning produce as well as personal hygiene
- ii) transport facilities services aiding the travel for procurement of products, delivery at point of sales, as well as their transportation back and forth
- iii) financial literacy - knowledge and practice of handling income and expenditure and saving

The occupational challenges arise from factors such as limited access to resources, inadequate infrastructure, market constraints, financial constraints, and other barriers that hinder the vendors' ability to effectively operate their businesses, generate sustainable income, and achieve financial security.

Theoretical Definition

Small-scale women fish-vendors: Small-scale women fish-vendors refers to a specific group of women engaged in the small-scale trading of fish and fish-related products. These vendors operate at a local or community level, typically within a limited geographical area, and play a crucial role in the marketing and distribution of fish to consumers. (FAO advisory committee on Fisheries Research (2015).

Operational Definition

Small-scale women fish- vendors: In this study small-scale women fish-vendors refer to a specific group of women engaged in the trade and marketing of fish and fish-related products at a local or small-scale level in the Pozhiyoor area. These vendors, typically stationary in their location of sales, operate with limited resources, infrastructure, and workforce, catering to the immediate community and nearby consumers.

Theoretical Definition

Financial Literacy: According to the OECD, financial literacy is defined as "a combination of awareness, knowledge, skill, attitude, and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well-being" (OECD/INFE, 2021,). Organization for Economic Cooperation and Development (OECD).

Operational Definition

Financial Literacy: In the context of this study financial literacy refers to the practice (application) of small-scale women fish vendors in Pozhiyoor in matters of managing their personal and business-related finances and making it sustainable. It includes conscious decisions regarding day-to-day purchase of fish, personal tracking of daily sales, savings, awareness regarding financial options - credit, grants, social security, etc., inclination towards financial literacy classes, etc.

Theoretical Definition

Transport services: According to the International Transport Forum, transport services can be defined as "the provision of physical movement of passengers, goods, or information between different locations, using one or multiple modes of transport". These services play a vital role in facilitating trade, commerce, tourism, and overall economic development by ensuring the efficient and reliable movement of people and goods. (Ronan., 2023)

Operational Definition

Transport services: In the context of this study, transport services refer to the specific aspects and modes of transport infrastructure available for these vendors to access markets and transport their fish products. It is operationalized by examining:

- a. types/modes of transport,
- b. appropriateness of transport schedules - frequency and availability
- c. quality and adequacy of fishing-allied transportation
- d. deficiencies in public transport services

all of which affect the sustainability of the business of small-scale women fish-vendors.

Theoretical Definition

Market infrastructure: According to the World Bank, market infrastructure can be defined as "the underlying physical, organizational, and institutional framework within which markets operate, including systems for trading, clearing, settling, and recording

transactions, as well as the legal and regulatory framework that governs market conduct. (Principles for financial market infrastructures Systems, (2012a)

Operational Definition

Market infrastructure: In the context of this study, Market infrastructure refers to the infrastructure moderating the working conditions of small-scale women fish vendors and includes infrastructure related to:

- a. physical protection - shelter, seating, designated spaces, general safety(including the availability of First Aid), adequacy of storage facilities
- b. sanitation and hygiene infrastructure - waste disposal and management systems within the market environment, access to clean water for cleaning fish, provision of toilet or restroom facilities, etc affecting the overall performance and sustainability of their business.

3.6 RESEARCH APPROACH

This study, being quantitative in nature, embraces positivism and goes by the deductive approach. The researcher made use of an interview schedule that includes a set of predetermined questions designed based on the research objectives to gather quantitative data from the participants on various aspects related to the occupational challenges faced by small-scale women fish vendors in Pozhiyoor.

3.7 RESEARCH DESIGN

The present study aims to provide a snapshot of the occupational challenges faced by small-scale women fish vendors in Pozhiyoor. Given that the research involves collecting data at a specific point in time to gather information about a particular population or phenomenon, the study adopts a cross-sectional research design. By collecting data at a specific point in time, the study can capture the current state of affairs and assess the prevailing conditions and issues in order to put forth suggestions and recommend policy changes at the local-level.

3.8 UNIVERSE AND UNIT OF STUDY

Universe: All the small-scale women fish-vendors operating in the Pozhiyoor area constitute the universe of the study.

Unit: An individual small-scale woman fish -vendor in Pozhiyoor constitutes the unit of the study.

3.9 SAMPLING STRATEGY

The researcher obtained a list of small-scale women fish-vendors from the regional office of the Trivandrum Social Service Society in Pozhiyoor; the list had 121 individuals. Based on the size of the population, a random sample generator suggested a sample size of 81. Hence, the researcher selected 81 persons using the lottery method, accommodating another 5 extra samples in consideration of those fish-vending women, who reportedly had expired. The sampling being done in this manner, the researcher had given the probability of including all units in the population; hence simple random sampling was used.

In practice, simple random sampling ensured that every small-scale women fish vendor in Pozhiyoor, has an equal chance of being selected for the study, enhancing the representativeness of the sample and thus allowing generalizations to be made about the larger population of small-scale women fish vendors in the area. This also helps to ensure that the sample is more objective and unbiased, allowing reliable and valid inferences to be drawn about the Occupational challenges faced by this specific population.

3.10 INCLUSION CRITERIA

- Only Stationary women fish-vendors are included in the study.
- Small-scale fish vendors who operate on a relatively very limited scale (small-scale) in terms of business size, on very limited capital investment, and do daily fish sales with no freezer storage system.
- The fish-vendors selected were limited to those operating in Pozhiyoor.

3.11 EXCLUSION CRITERIA

- The study excludes fish vendors who directly or indirectly associate with large-scale businesses with storage, processing and delivery facilities.

3.12 DATA COLLECTION

The data was collected from both primary and secondary sources. Primary data was collected from 81 small scale women fish vendors in Pozhiyoor using an interview schedule. The interview schedule used was a self-prepared structured questionnaire that includes a set of pre-determined questions designed to gather relevant information from the participants. The interview schedule was developed based on the research objectives and the specific areas of interest related to the Occupational challenges faced by small-scale women fish vendors.

The questions fielded were designed to cover various aspects such as socio-demographic information, market infrastructure, public transport, financial management, etc. The interviews were typically conducted face-to-face, allowing for direct interaction between the researcher and the participants. The interviews were carried out in a structured manner, following the sequence of questions outlined in the interview schedule. During the interviews, the researcher recorded the participants' responses systematically, using google forms.

3.13 PRE - TEST

In order to test the effectiveness of the research tool, a pre-test was conducted among 7 small-scale women fish vendors in Pozhiyoor. The purpose of the pre-test was to evaluate the clarity, relevance, and comprehensibility of the interview schedule used for data collection. A pre-test serves as a valuable step in the research process, as it allows the researcher to identify and address the potential shortcomings or ambiguities in the tool before proceeding with the actual data collection.

During the pre-test, the researcher administered the interview schedule to the selected vendors and observed their responses. The vendors were asked to provide feedback on the structure of certain items - a calculation of income based on daily-wages rather than monthly-income; 'all of the above' option regarding waste disposal; and 'none of the above' option regarding certain other questions - for appropriate answering. Based on the feedback received from the pre-test participants, the researcher made necessary modifications to items on the interview schedule. The changes made to the tool enhanced the validity and the reliability of the tool.

3.14 DATA ANALYSIS

In this research, the collected data was analyzed using descriptive statistics to examine the frequencies and percentages of various variables. Descriptive statistics provide a way to summarize and describe the data in a meaningful manner, allowing for a clear understanding of the patterns and characteristics present in the dataset. The Statistical Package for the Social Sciences (SPSS) version 22 was utilized for the data analysis process. The utilization of descriptive statistics and SPSS in this research helped to provide a comprehensive and detailed analysis of the data collected from small-scale women fish vendors in Pozhiyoor. The results obtained from this data analysis approach contributed to a better understanding of the Occupational problems faced by these vendors and provided valuable insights for the research study.

3.15 ETHICAL CONSIDERATIONS

- Informed Consent: Prior to conducting the interviews or collecting any data, informed consent obtained from the participants. They provided clear information about the purpose, procedures, and potential benefits of the study. Besides, the participants were informed about their right to withdraw from the study at any point in time.
- The privacy and confidentiality of the participants' personal information was assured.
- Researcher ensured that the study did not exploit or harm the participants and that their rights and dignity were respected throughout the research process.
- Researcher took measures to minimize any potential harm or discomfort to the participants of the study, by avoiding sensitive or intrusive questions and ensuring that the study did not have any negative impact on their well-being.

ASSUMPTIONS, LIMITATIONS AND SCOPE

3.16 ASSUMPTIONS

- Researcher assumed that the selected sample of small-scale women fish vendors in Pozhiyoor represents a relatively homogeneous group in terms of their socio-economic backgrounds, experiences, and challenges.

3.17 LIMITATIONS

- The study focuses specifically on the Occupational challenges of small-scale women fish vendors in Pozhiyoor. While it provides valuable insights into this particular context, the findings may not be directly applicable to other regions or other modes of work in the fishing industry - food-processing, peeling, fish drying, mobile or large-scale vending, etc.
- The Study does not address the health aspects of small-scale women fish vendors
- The research being conducted within a small period of time, perhaps might not reflect the seasonal nature of their business.
- The cross-sectional design employed in the study captures data at a single point in time, limiting the ability to establish causal relationships or assess changes over time.
- The findings of the study may be influenced by specific contextual factors unique to Pozhiyoor, such as local market dynamics, cultural norms, and regional policies.

3.18 SCOPE OF THE STUDY

- The study specifically targets small-scale women fish vendors as the focal group of interest; it helps in understanding their unique experiences, perspectives, and challenges within the fishing industry.
- The study helps to assess the effectiveness of existing policies, programs, and interventions aimed at supporting small-scale women fish vendors at the LSG-level.
- Conducting a longitudinal study that follows the small-scale women fish vendors over an extended period of time would provide a deeper understanding of the changes and dynamics in their working conditions.

- Comparing the experiences and challenges of small-scale women fish vendors in Pozhiyoor with those in other regions or districts within Kerala or even in different states of India could provide insights into regional variations and factors influencing their Occupational well-being of these vendors.
- Qualitative or mixed method studies can be undertaken on the same topic to broaden the study.

**CHAPTER IV: DATA ANALYSIS AND
INTERPRETATION**

4.1 OVERVIEW OF THE CHAPTER

The study titled “Occupational challenges encountered by small-scale women fish vendors in Pozhiyoor” is a study undertaken in a quantitative paradigm and follows a cross-sectional research design. The study aims at the following:

- Profile the small-scale women fish-vendors in Pozhiyoor
- Assess the existing the adequacy of infrastructure within the market environment affecting the operations of small-scale women fish-vendors in Pozhiyoor
- Assess the adequacy of transport services available to small-scale women fish-vendors for accessing markets
- Assess the knowledge of financial literacy and its application among small-scale women fish-vendors in Pozhiyoor
- Identify the challenges to small-scale women fish-vendors in sustaining their fish vending business.

4.2 DATA ANALYSIS AND DISCUSSIONS

The above intentions were translated into objectives which are analysed in segments as below given:

4.2.1 Socio-demographic profile of small-scale fish vendors in Pozhiyoor

Age-wise distribution of respondents

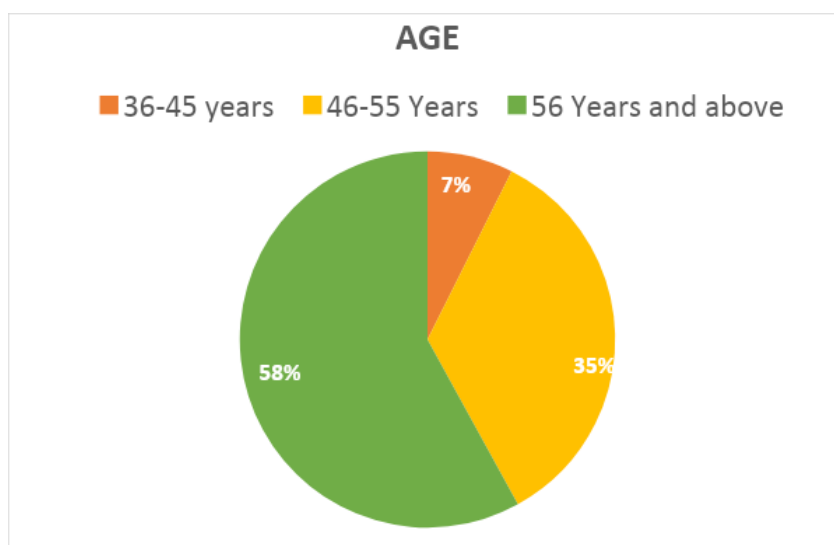


Diagram 4.1 - Pie diagram showing the age-wise distribution of the respondents.

The more than half of the small-scale women fish vendors (58%) in Pozhiyoor fall into the 56 years and above age category. This suggests that older women are actively involved in fish vending in this area. This was followed by the age category of 46-55 years comprising 34.6% of the respondents and the age category of 36-45 years with only 7.4% representation in the respondent population studied. This suggests that women in the younger generation (below 46 years) are relatively less involved in small-scale fish vending in the area. This perhaps indicates that less and less among the younger generation are involved in the fish-vending industry. The depletion of fishing resources and increasing challenges experienced by the fisher community, higher intergenerational costs, the tremendous livelihood transitions and adaptation measures in rural and fishing communities (e.g., Thanh et al., 2020; Nayak et al., 2014) has rendered the sector unattractive. Hence, we find the aspiring younger generation less involved with employment allied to the fisheries sector.

Marital status of the respondents

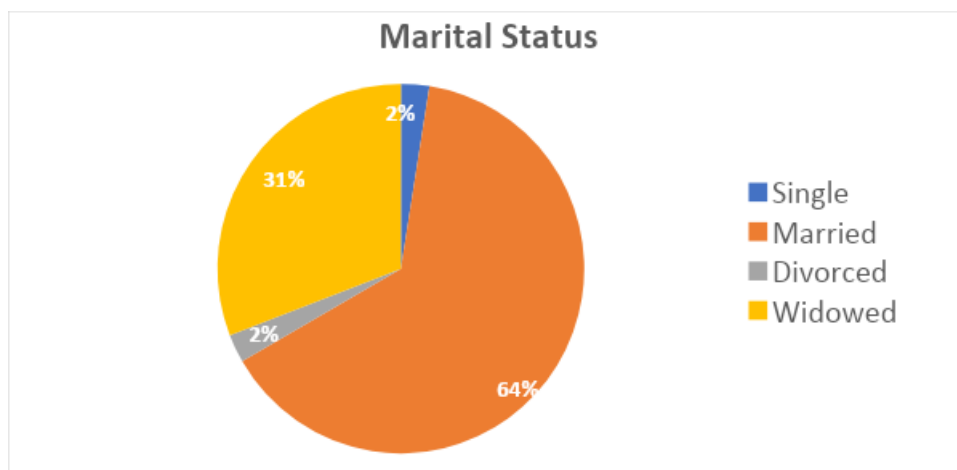


Diagram 4.2 - Pie-chart depicting the distribution of respondents based on their marital status

The vast majority of small-scale women fish-vendors (95%) in Pozhiyoor engaging in the fish-vending were married or widowed.

Religion of the respondents

The Pie-diagram 4.3 shows that the vast majority of respondents (97.5%) were Christians, followed by those who followed Islam accounting for 2.5%. This indicates the predominance of women following Christianity in the fish-vending industry in this area. This is representative of the general population at Pozhiyoor.

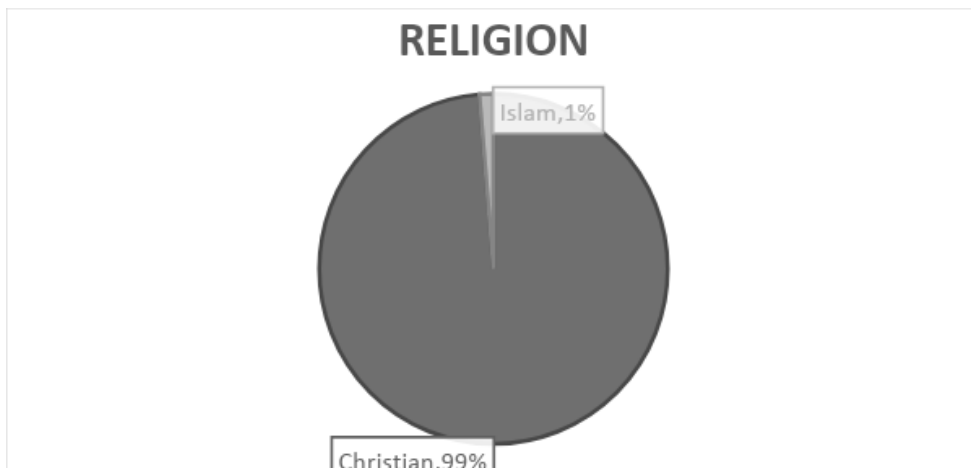


Diagram 4.3 - Pie-chart depicting the distribution of respondents based on their Religion

Educational status of small-scale fish-vending women

The half of small-scale women fish vendors (50.6%) in Pozhiyoor have no formal education, followed by those women fish-vendors having primary education comprising 40.7% of the total respondents. This indicates that a significant portion of vendors may have limited access to formal schooling or may have discontinued their education at an early stage. Vendors with secondary education have the lowest representation (8.6%).

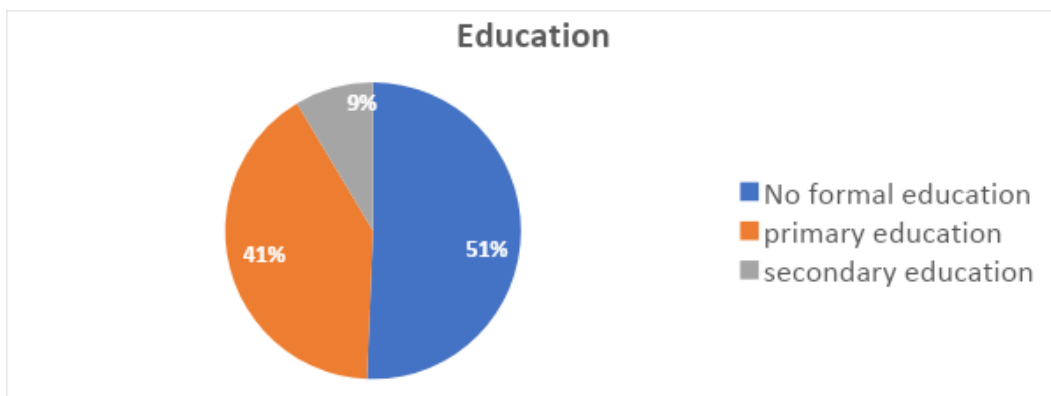


Diagram 4.4 - Pie-chart depicting the distribution of respondents based on their Education

Household size

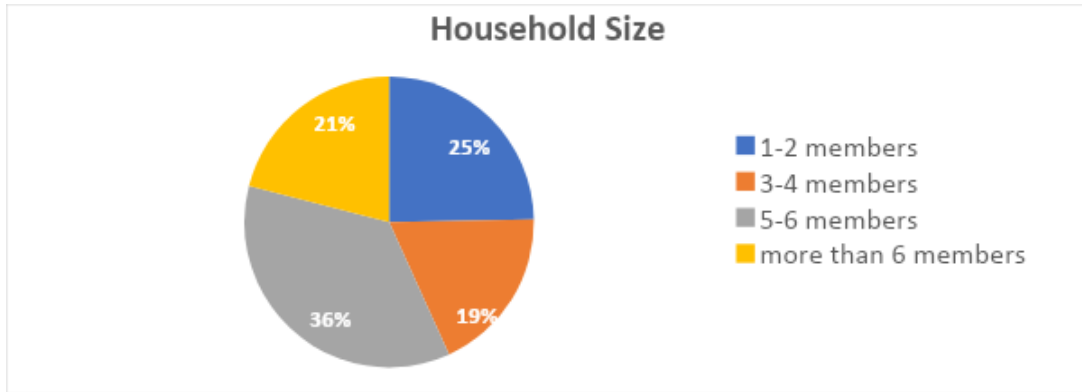


Diagram 4.5 - Pie-chart depicting the distribution of respondents based on their household size

The Pie diagram 4.5 shows that more than a third of vendors (35.8%) have a household size with 5-6 members. The next largest group, at 24.7%, comprises women fish-vendors from households with 1-2 members. This indicates that a substantial number of women vendors operate within smaller households. Vendors from households with more than 6 members represent 21.0% of the total respondents, indicating that a notable portion of women vendors have larger families to support. The smallest group, at 18.5%, consists of vendors from households with 3-4 members.

Household income

More than three fourth of the small-scale women fish-vendors (77.8%) in Pozhiyoor earned less than Rs 500 per day, indicating that a significant proportion of women vendors had a very limited household income to operate with. Almost a quarter of the women fish-vendors (22.2%) had a household income between Rs500 and Rs 1000 per day. This finding is particularly significant when considering the World Bank's poverty threshold, which defines extreme poverty as living on less than US\$ 1.9 per day.

Converting the poverty threshold to the local currency, Rs. 155 per person in a household, it is apparent that a significant portion of the women vendors falls below

this threshold. With a daily income of less than Rs 500, it is evident that these vendors face economic hardships and may struggle to meet their basic needs, including food, shelter, healthcare, and education.

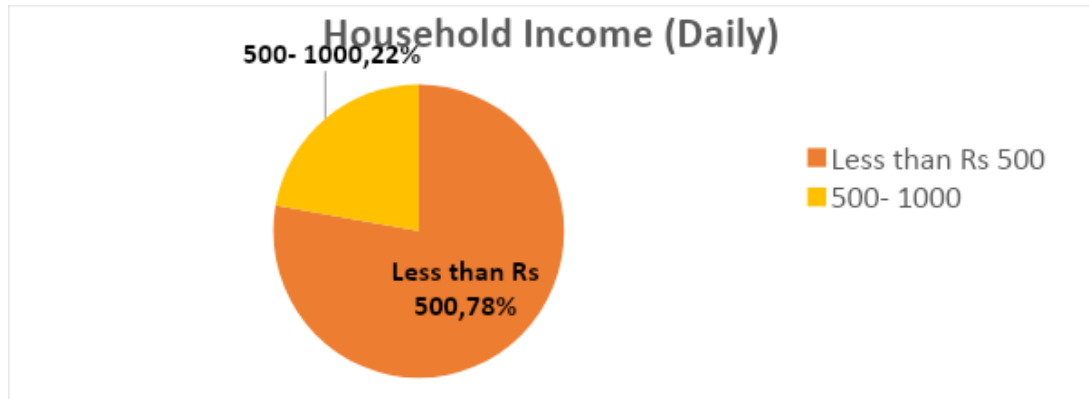


Diagram 4.6 - Pie-chart depicting the distribution of respondents based on their Household income

Years of involvement in fish-vending

The majority of small-scale women fish vendors (76.5%) in Pozhiyoor have been involved in fish-vending for more than 10 years; this indicates a high level of experience and expertise among these vendors, suggesting a deep-rooted presence of women in the fish vending industry in the area.

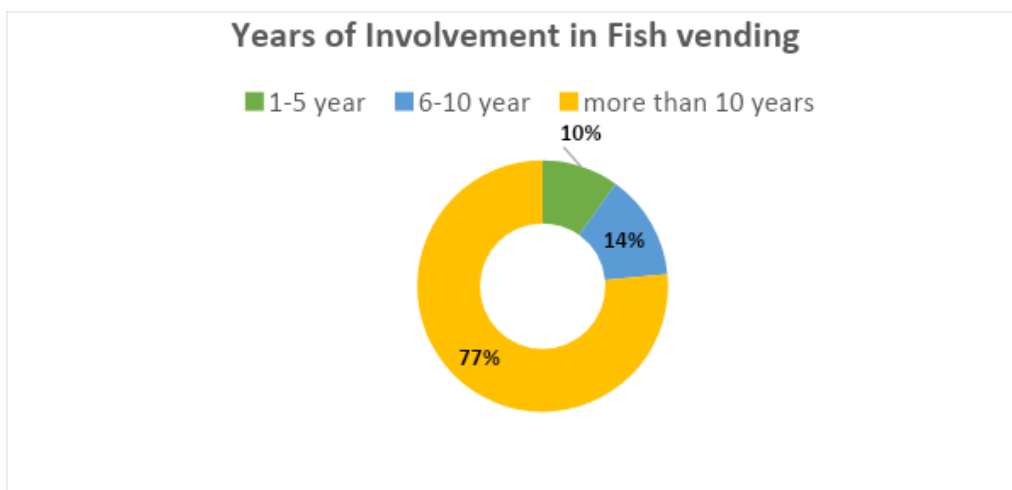


Diagram 4.7 - Pie-chart depicting the distribution of respondents based on their years of involvement in fish-vending

The remaining women fish-vendors had lower experience - those with 6-10 years accounted for 13.6% of the total respondents, while those with 1-5 years of involvement

accounted for 9.9% of the total respondents. Thus, this suggests a limited entry or participation by newer entrants into the fish vending industry.

4.2.2 Adequacy of the existing market infrastructure

The second objective of the study aimed at assessing the adequacy of the existing infrastructure within the market environment that would have affected the operations of small-scale women fish-vendors in Pozhiyoor.

Table 4.1

Overall assessment of market infrastructure

Infrastructure facilities with in the market	Percent	
Rating of overall infrastructure facilities within the market	Poor	67.9
	Fair	22.2
	Good	9.9
	Total	100.0

Table 4.1 shows the Rating of overall infrastructure facilities within the market for the respondents. Two-thirds of small-scale women fish vendors (67.9%) in Pozhiyoor perceive the overall infrastructure facilities within the market as ‘poor’. This suggests that a significant portion of vendors face challenges and limitations related to the infrastructure in which they operate. Vendors who rated the overall infrastructure facilities as fair make up the second-largest group, comprising 22.2% of the total respondents. This indicates that a smaller portion of vendors consider the infrastructure to be adequate but with room for improvement. Only 9.9% of the vendors who responded rated the overall infrastructure facilities as good.

Table 4.2

Adequate spaces/ sheds availability for the vendors

Infrastructure facilities		Frequency	Percent
Availability of spaces/sheds sufficient to accommodate/shelter the vendors	No space	7	8.6
	no, insufficient space	27	33.3

	yes, just enough	44	54.3
	yes, more than enough	3	3.7
	Total	81	100.0

Table 4.2 shows the Availability of Spaces/ sheds for the respondents in the market. A significant portion of small-scale women fish vendors in Pozhiyoor face challenges related to space availability. This is evident from the 8.6% of vendors who reported having no space and the 33.3% of vendors who reported insufficient space. On the other hand, a majority of vendors, accounting for 54.3% of the total respondents, reported that the available space is just enough to accommodate them. This suggests that there is a balance between the number of vendors and the available space, but any increase in the number of vendors may create space constraints. A small percentage of vendors, representing 3.7% of the total respondents, reported having more than enough space to accommodate them. These vendors may benefit from having extra space, which could potentially allow for expansion or diversification of their businesses.

Stalls with proper facilities for vendors

The data indicates that the vast majority of small-scale women fish-vendors (97.5%) in Pozhiyoor do not have access to stalls with proper facilities. Only 2.5 percent of vendors reported having access to stalls with proper facilities. This suggests a lack of infrastructure or support systems in place to provide vendors with suitable stalls that meet their needs. These vendors are likely benefiting from the improved infrastructure and facilities provided, which can positively impact their business operations and customer experience.

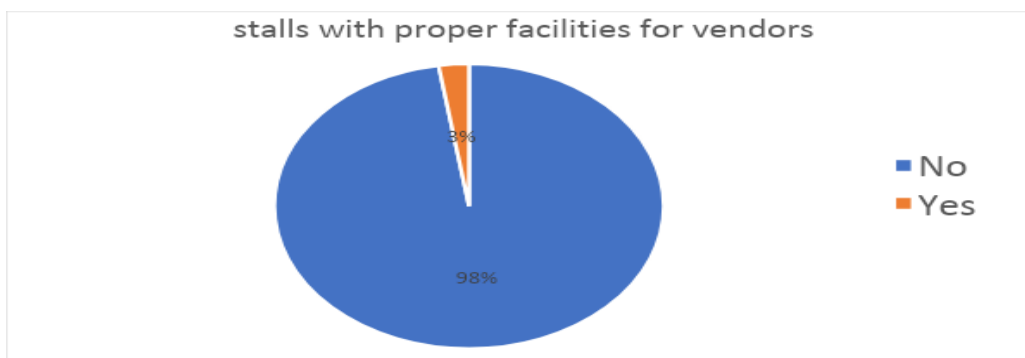


Diagram 4.8 - Pie-chart depicting the distribution of respondents based on their stalls with proper facilities for vendors

Waste disposal facilities for the vendors

Diagram 4.9 shows the Waste disposal facilities for the Respondents. The majority of small-scale women fish-vendors in Pozhiyoor (80.2%) do not have access to waste disposal facilities. Only a fifth of the vendors (19.8%), reported having access to waste disposal facilities. This suggests a lack of proper waste management infrastructure or systems in place to support vendors in disposing of their waste responsibly. These vendors are likely benefiting from the presence of waste management infrastructure, which can contribute to a cleaner and more hygienic environment.

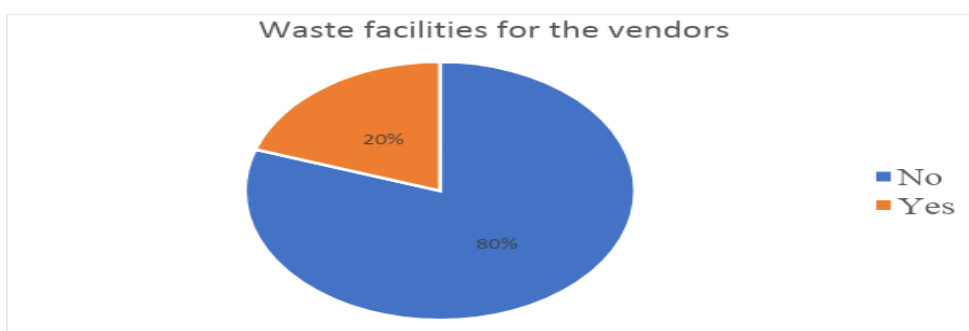


Diagram 4.9 - Pie-chart depicting the distribution of respondents based on their facilities for waste disposal for vendors

Mode of disposal of the waste generated during fish-vending

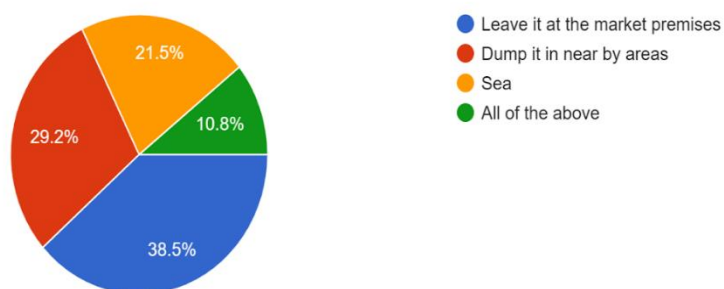


Diagram 4.10 - Pie-chart depicting the distribution of respondents based on mode of disposal of the waste generated during fish vending activities

Waste disposal is a major concern that reflects on the hygiene of the workplace. Diagram 4.10 hints at the hygiene issues and inadequacy of the disposal system concerning the waste generated out of fish-vending. It shows that 38.5% of the respondents reported ‘leaving waste at the market premises.’ 29.2% of the respondents mentioned ‘dumping waste in nearby areas.’ 21.5% of the respondents reported ‘disposing of waste in the sea.’ 10.08% of the respondents used all of the above-mentioned disposal methods. The fact that the fish-vending women had to resort to disposing waste generated indiscriminately shows of the managing work-life balance, utter lack of proper waste disposal facilities in the market or related spaces, and this highlights the urgent need for improved waste management infrastructure and initiatives to promote responsible waste disposal practices.

Table 4.3

Availability of restrooms for the women fish vendors

Infrastructure facilities with in the market		Frequency	Percent
Toilet/ restroom facilities available for the women fish vendors	No	60	74.1
	Yes	21	25.9
	Total	81	100.0

The majority of small-scale women fish vendors in Pozhiyoor do not have access to toilet/restroom facilities, representing 74.1% of the total respondents. This indicates a lack of adequate sanitary facilities within the market area for the vendors. A smaller percentage of vendors, accounting for 25.9% of the total respondents, reported having access to toilet/restroom facilities. These vendors are likely benefiting from the presence of sanitary facilities, which can contribute to their overall well-being and hygiene.

Managing of lack of toilet facilities by the women fish vendors

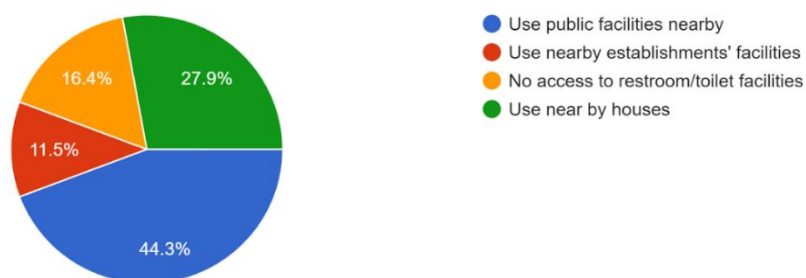


Diagram 4.11 - Pie-chart depicting the distribution of respondents based on their mode of managing sanitation needs

Diagram 4.11 Shows that 44.3% of the respondents reported using public facilities located near the market. This indicates that a significant portion of women fish vendors have to rely on existing public toilets outside the market premises. 27.9% of the respondents mentioned using toilets in nearby houses. This implies that a considerable number of vendors rely on the goodwill of nearby residents who allow them to use their toilet facilities. 16.4% of the respondents stated that they have no access to toilet facilities. The absence of proper sanitation facilities can negatively impact the health, hygiene, and overall well-being of these vendors. 11.5% of the respondents mentioned using toilet facilities in nearby establishments. This could include shops, restaurants, or other commercial buildings situated close to the market.

Water supply with in the market

Water is essential for washing the fish cut as well as for washing their hands after doing each piece of work. The absence of water causes the space and the women themselves to smell bad affecting the customers. Diagram 4.12 shows that the majority of small-scale women fish-vendors (71.6%) in Pozhiyoor do not have access to water supply within the market. Only 28.4% among the women fish-vendors, reported having access to water supply within the market. These vendors are likely benefiting from having a water source available, which is crucial for tasks such as cleaning fish, washing hands, and maintaining cleanliness.

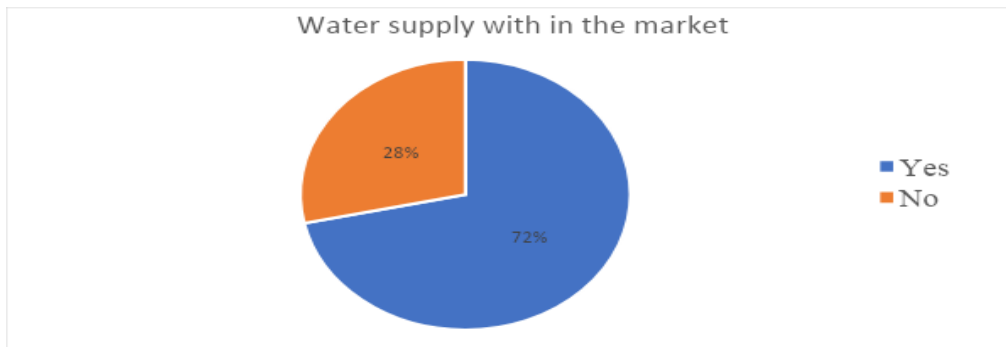


Diagram 4.12 - Pie-chart depicting the distribution of respondents based on their sufficiency of water supply with in the market

Impact of Inadequate Water Supply and Sanitation on Vendor’s daily Operations

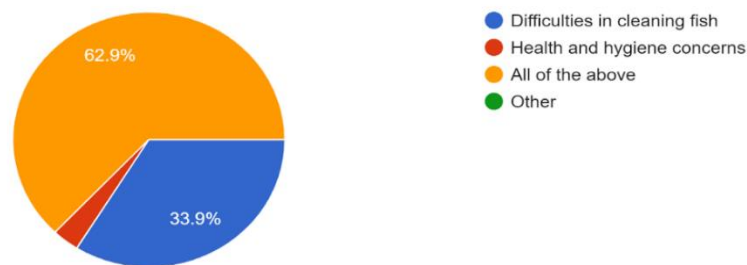


Diagram 4.13 - Pie-chart depicting the distribution of respondents based on Impact of Inadequate Water Supply and Sanitation on Vendor’s daily Operations

Diagram 4.13 shows the Inadequate water supply and sanitation how affected the vendors daily operations. 33.9% of the respondents reported difficulties in cleaning fish due to the lack of adequate water supply and sanitation facilities. This suggests that a significant proportion of women fish vendors face challenges in maintaining proper hygiene and cleanliness while handling and preparing fish for sale. Insufficient water supply can hinder their ability to clean and wash fish effectively, potentially affecting the quality and hygiene standards of their products.

3.2% of the respondents mentioned health and hygiene concerns resulting from the lack of adequate water supply and sanitation facilities. This indicates that a small percentage of vendors are aware of the potential health risks associated with inadequate hygiene

practices. Insufficient water supply and sanitation facilities can contribute to the spread of diseases and contamination, posing risks to both the vendors and their customers.

62.9% of the respondents indicated that they face difficulties in cleaning fish, experience health and hygiene concerns, or both due to the lack of adequate water supply and sanitation. This suggests that a majority of women fish vendors are affected by multiple challenges arising from the inadequate infrastructure. The combination of difficulties in cleaning fish and health concerns can significantly impact their daily operations, product quality, customer satisfaction, and overall business performance.

Table 4.4

Availability of the storage facilities, sanitation and safety concerns with in the market

Infrastructure facilities with in the market		Frequency	Percent
Sufficient storage facilities for storing fish	No	80	98.8
	Yes	1	1.2
	Total	81	100.0
Proper sanitation and hygiene measures with in the market	No	61	75.3
	Yes	20	24.7
	Total	81	100.0
Safety concerns due to infrastructure shortcomings	No	25	30.9
	Yes	56	69.1
	Total	81	100.0

Storage facilities for storing fish

Table 4.4 indicates that the majority of small-scale women fish vendors in Pozhiyoor do not have access to sufficient storage facilities for storing fish, representing 98.8% of the total respondents. This suggests a lack of proper infrastructure or storage options available to the vendors to preserve their fish products. A very small percentage of vendors, accounting for 1.2% of the total respondents, reported having sufficient

storage facilities. These vendors are likely benefiting from having appropriate storage options, which can help them maintain the quality and freshness of their fish products.

Sanitation and hygiene measures with in the market

The majority of small-scale women fish vendors in Pozhiyoor reported the absence of proper sanitation and hygiene measures within the market, representing 75.3% of the total respondents. This indicates a lack of measures in place to ensure cleanliness, hygiene, and sanitation standards for the vendors and the overall market environment.

A smaller percentage of vendors, accounting for 24.7% of the total respondents, reported the presence of proper sanitation and hygiene measures. These vendors are likely benefiting from measures such as regular cleaning, waste management, and hygiene protocols, which contribute to a cleaner and safer working environment.

Infrastructural shortcoming affecting daily operations of the vendors

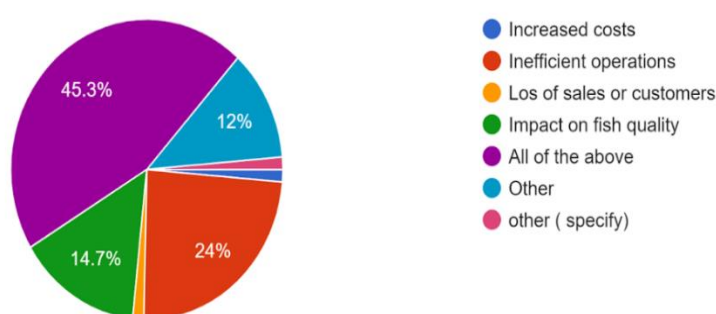


Diagram 4.14 - Pie-chart depicting the challenges faced by small-scale women fish vendors in the context of market-infrastructure facilities

Diagram 4.14 shows that 24% of the respondents reported experiencing inefficiencies in their daily operations due to various factors such as a lack of infrastructure and inadequate resources. These inefficiencies can include difficulties in procuring fish, maintaining freshness, and managing inventory. Inefficient operations can lead to increased effort, and potential financial losses for the vendors. 14.7% of the respondents mentioned that a lack of adequate infrastructure, such as insufficient sheds/stalls and proper storage facilities or cooling systems, negatively impacts the quality of their fish products. Insufficient storage and cooling can lead to fish spoilage, reduced freshness, and compromised taste and texture. The quality of fish plays a crucial role in attracting

customers and ensuring their satisfaction, so any negative impact on fish quality can directly affect the vendors' sales and reputation. 12% of the respondents cited other specific challenges or issues that affect their daily operations. The nature of these challenges includes factors such as market competition, pricing fluctuations, marketing difficulties, or regulatory constraints. Each of these factors can have unique effects on the vendors' operations, profitability, and overall business performance. 45.3% of the respondents reported experiencing all of the mentioned effects, including inefficient operations, impact on fish quality, and other challenges. This indicates that a significant portion of women fish vendors face multiple issues that hamper their daily operations. The combination of these challenges can have a cumulative effect on their ability to conduct business efficiently, meet customer demands, and achieve sustainable profitability.

DISCUSSION

The findings from the studies by Mramba, R. P., & Mkude, K. E. (2022) identifies infrastructure limitations as a key challenge. The findings highlight the inadequate infrastructure, such as storage facilities and transportation, impacting the overall efficiency of the fishing sector and leading to post-harvest losses. Additionally, this study highlights the socio-demographic characteristics, such as age, education, and experience, that play a role in determining the level of success and access to resources for small-scale fishers and vendors. The Pozhiyoor study specifically focuses on small-scale women fish vendors and identifies similar challenges to the Tanzanian study, such as limited access to financial resources and low financial literacy. Both studies emphasize the need for improved training and support to enhance financial management skills among small-scale fish vendors. While the Tanzanian study discusses the impact of fish spoilage on catch, the Pozhiyoor study does not directly address this aspect. However, both studies emphasize the importance of training and proper handling to mitigate post-harvest losses and improve the overall quality of fish products. In summary, both studies highlight the critical role of small-scale fisheries in local economies and the challenges faced by individuals involved in this sector. While the Tanzanian study focuses on small-scale fishermen, the study in Pozhiyoor specifically addresses the challenges encountered by small-scale women fish vendors. Despite the contextual differences, the findings from both studies underscore the importance of

improving infrastructure, access to financial resources, and providing training to enhance the livelihoods and economic empowerment of small-scale fishers and vendors

According to Rajan.J. B (2001) study's findings emphasizes the hardships and low dignity experienced by fish vending women in their work. The perception of low dignity in fish vending is a common issue in the study, impacting the social status and discouraging the younger generation from pursuing this occupation.

The findings from Jese Verebalavu's paper (2009) provide valuable insights that can be triangulated with this study. Both studies emphasize the significant socio-economic contribution of women in the fishing industry and shed light on their roles in supporting their households, communities, and the nation as a whole. In Jese Verebalavu's research, artisanal fisherwomen are highlighted as individuals who have acquired practical knowledge about basic business management through their years of experience in selling at markets. Similarly, this study identifies small-scale women fish vendors as active participants in fish commerce, connecting fishermen and consumers. While they do not have formal business management education, their first-hand experience has equipped them with valuable skills and knowledge in managing their businesses. Another point of convergence between the two studies is the importance of hygiene and resource management. Jese Verebalavu's paper emphasizes that artisanal fisherwomen have learned about the significance of keeping their resources clean and hygienic for the market. In comparison, this study addresses the challenges faced by small-scale women fish vendors in accessing adequate infrastructure, which could potentially impact the preservation and packaging of their resources. Both studies also highlight the positive impact of women's income on their families and communities. In Jese Verebalavu's research, income generated by artisanal fisherwomen, small business owners, and female employees of fishing companies has a multiplier effect on their households and communities. Similarly, this study acknowledges that the earnings of women fish vendors contribute to their households' socio-economic conditions.

The challenges identified in Chandrika Sharma's (2010) study about the need for policy and legislative support for women fish vendors ,emphasize the importance of addressing gaps in policy and implementation to support this crucial segment of the population. This includes improving market infrastructure, access to financial

resources, and providing training and awareness programs to enhance financial literacy and business management skills.

The study by Menezes in 1991 on "Improving Marketing Conditions for Women Fish Vendors in Besant Nagar, Madras" provides insights that could be triangulated with this study in Pozhiyoor. Both studies focus on the marketing aspects of women fish vendors and the interventions aimed at improving their conditions. In Menezes' study, a fish market exclusively run by women fish vendors was established in Besant Nagar, Madras, with support from the Corporation of Madras and the BOBP for Fisheries Development. This initiative aimed to empower women in the fishing community and improve their marketing conditions. Similarly, this study aims to assess the adequacy of infrastructure within the market environment affecting the operations of small-scale women fish vendors in Pozhiyoor. By examining the interventions and support provided in the Madras fish market, authorities can draw parallels or contrasts in terms of how similar initiatives could benefit women fish vendors in Pozhiyoor.

4.2.3 To examine the deficiency in public transport services available to small scale women fish vendors for accessing markets

Table 4.5

Mode of transportation primarily rely on to transport fish to the market

Transportation for accessing Markets		Frequency	Percent
Mode of transportation primarily rely on to transport fish to the market	Own vehicle	1	1.2
	Public Transportation	77	95.1
	By walk	3	3.7
	Total	81	100.0

A significant majority, 95.1% of the respondents, primarily rely on public transportation to transport fish to the market. This indicates that public transportation, such as Auto rick- shaws and Bus is the most common and accessible mode of transportation for these vendors. A small percentage, 3.7% of the respondents, reported that they transport fish to the market by walking. This could imply that these vendors

operate in close proximity to the market and can conveniently carry their fish on foot. 1.2% of the respondents rely on their own vehicles to transport fish to the market. This suggests that the majority of women fish vendors do not have access to private transportation or do not find it feasible or cost-effective for their business operations. The reliance on public transportation as the primary mode of transportation highlights the importance of accessible and reliable public transportation systems for the smooth operation of small-scale women fish vendors' businesses. It also indicates the need for efficient public transportation networks that can accommodate the transportation of perishable goods like fish to ensure timely and fresh delivery.

Public transport commonly used to transport fish to the market

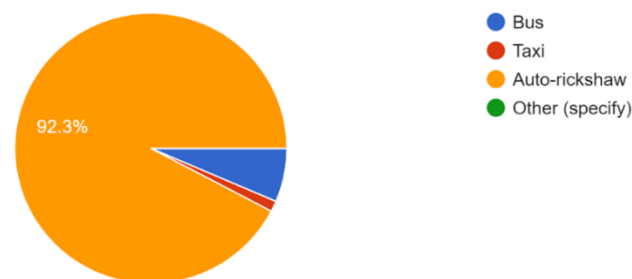


Diagram 4.15 - Pie-chart depicting the type of public transport commonly used to transport fish to the market

Diagram 4.15 shows that the majority of vendors (92.3%) commonly use auto rickshaws as their preferred mode of public transportation for transporting fish to the market. Auto rickshaws are popular due to their flexibility, and ability to transport smaller quantities of fish efficiently. A smaller percentage of vendors (6.4%) reported using buses for transportation, which suggests that buses are a less common mode of transport for fish vendors. This is due to factors such as limited bus routes or schedules that may not align with the vendors' specific needs. A very small percentage of vendors (1.3%) mentioned using taxis for transporting fish to the market. Taxis are likely less common due to their higher cost compared to auto rickshaws and buses. The data highlights the significant reliance on auto rickshaws as the primary mode of public transportation for fish vendors in Pozhiyoor. This information can be valuable for authorities and transportation planners in understanding the specific transportation

needs of these vendors and improving the availability and accessibility of auto rickshaws in the area.

Table 4.6

Access for Market Transportation: Frequency, Availability, and Capacity

Transportation for accessing Markets		Frequency	Percent
Frequency of public transportation operating in the locality	very frequently	24	29.6
	Frequently	44	54.3
	infrequently	8	9.9
	Rarely	2	2.5
	Not sure	3	3.7
	Total	81	100.0
Rating of the availability of public transport services catering to the needs of vendors	Poor	31	38.2
	Fair	44	54.3
	Good	6	7.4
	Total	81	100.0
Capacity of public transportation to accommodate fish and equipment	Yes, always	28	34.6
	yes, sometimes	43	53.1
	No usually overcrowded	8	9.9
	Not applicable	2	2.5
	Total	81	100.0

Frequency of public transportation operating in the locality

Table 4.6 shows that the majority, 54.3% of the respondents, indicated that public transportation operates frequently in the locality. This indicates that most vendors perceive the availability of public transportation on a regular basis, allowing them to transport their fish to the market without significant disruptions. 29.6% of the respondents perceive public transportation to operate very frequently in the locality.

This suggests that a significant portion of the vendors believes that public transportation is readily available and operates with high frequency, providing them with convenient and reliable transportation options. A small percentage, 9.9% of the respondents, reported that public transportation operates infrequently in the locality. This suggests that there might be occasional gaps or irregularities in the frequency of public transportation services, which could potentially pose challenges for vendors in terms of timely and efficient transportation. Only 2.5% of the respondents stated that public transportation operates rarely in the locality. This implies that there are instances where public transportation services are scarce or limited, making it difficult for vendors to rely on these services consistently. 3.7% of the respondents, expressed uncertainty about the frequency of public transportation in the locality. This might indicate a lack of clarity or awareness among these vendors regarding the availability and schedule of public transportation services.

Rating of the availability of public transport services catering to the needs of vendors

Majority of the vendors (54.3%) perceive the availability of public transport services to be fair in catering to their needs. This indicates that while there may be some areas for improvement, the existing public transport services are generally able to meet the transportation requirements of the vendors to a satisfactory extent. However, a significant portion of the vendors (38.2%) rated the availability of public transport services as poor. This suggests that there are deficiencies or challenges in the current public transport system that hinder the vendors' ability to effectively transport their goods to the market. The smaller percentage of 7.4% of vendors rating the availability of public transport services as good indicates that there are some vendors who find the services to be satisfactory and well-suited to their needs. The data highlights the need for improvements in the availability of public transport services to better cater to the needs of the vendors. This could include measures such as increasing the frequency and reliability of public transport, ensuring better connectivity to key market areas, addressing any infrastructure or accessibility issues, and considering the specific requirements of the vendors in terms of timing and routes.

Capacity of public transportation to accommodate fish and equipment

The table 4.6 indicates that a significant percentage of the vendors, 53.1%, reported that public transportation sometimes has the capacity to accommodate their fish and equipment. This suggests that while there may be instances where vendors can transport their goods comfortably, there are also occasions when they may face challenges due to limited space or capacity. Additionally, 34.6% of the respondents stated that public transportation always has the capacity to accommodate their fish and equipment. This indicates that there are instances where the vendors consistently find the necessary space to transport their goods without any issues. On the other hand, 9.9% of the vendors mentioned that public transportation is usually overcrowded, which implies that they face difficulties in finding adequate space for their fish and equipment during transportation. The small percentage of 2.5% respondents who selected "Not applicable" suggests that there may be a few vendors who do not rely on public transportation to transport their fish and equipment. This could be due to factors such as having their own transportation or using alternative methods.

Table 4.7

Deficiencies and Challenges face in using public transport services

Public transportation for accessing markets		Frequency	Percent
Deficiencies in public transport services that affect overall business operations and profitability	Increased transportation costs	63	77.8
	Longer transportation time	2	2.5
	Loss of sales due to delays	4	4.9
	all of the above	12	14.8
	Total	81	100.0
Challenges face in using public transport services to transport fish to the market	Limited space for fish storage	8	9.9
	Lack of proper handling and care for fish	5	6.2

Inconvenient bus routes	11	13.6
all of the above	12	14.8
None of the above	41	50.6
other	4	4.9
Total	81	100.0

Deficiencies in public transport services that affect overall business operations and profitability

Table 4.7 indicates that the most significant deficiency in public transport services, as reported by the vendors, is the increased transportation costs, which affects 77.8% of the respondents. This suggests that the vendors experience financial burdens due to the high costs associated with transporting their fish and equipment using public transportation. A smaller percentage of respondents, 2.5%, mentioned longer transportation time as a deficiency in public transport services. This implies that some vendors face challenges with delays or extended travel times when using public transportation, which can impact their overall business operations and efficiency. Additionally, 4.9% of the respondents reported that the deficiencies in public transport services led to a loss of sales due to delays. This indicates that the vendors may experience difficulties in meeting delivery schedules or reaching the market on time, resulting in missed sales opportunities and potential revenue loss.

Furthermore, 14.8% of the vendors indicated that they face all of the above deficiencies in public transport services. This highlights the cumulative impact of increased transportation costs, longer transportation time, and loss of sales due to delays on their overall business operations and profitability. The data underscores the significance of addressing these deficiencies in public transport services to support the business operations and profitability of small-scale women fish vendors. Authorities should consider measures such as optimizing transportation routes, reducing costs, improving the efficiency and timeliness of public transportation, and providing support mechanisms to mitigate the financial burdens faced by the vendors. By addressing these deficiencies, the vendors can enhance their business operations, reduce costs, and improve their overall profitability.

Challenges face in using public transport services to transport fish to the market

Table 4.7 reveals that a significant portion of the vendors, 50.6%, did not identify any of the provided challenges as obstacles in using public transport services to transport fish. It suggests that these vendors may not perceive any specific challenges or may have alternative solutions in place to mitigate the issues associated with public transport. Among the identified challenges, the most commonly reported issue is inconvenient bus routes, affecting 13.6% of the vendors. This indicates that some bus routes are not optimized for efficient transportation of fish or do not provide direct access to the market, causing additional travel time and inconvenience for the vendors. Another challenge mentioned by 9.9% of the vendors is limited space for fish storage. This implies that when using public transport services, the vendors may face constraints in storing their fish adequately, which can impact the quality and freshness of the product. A smaller percentage, 6.2%, cited the lack of proper handling and care for fish as a challenge. This suggests that there may be issues with ensuring the appropriate handling practices during transportation, potentially leading to quality degradation or damage to the fish.

Furthermore, 14.8% of the vendors mentioned that they face all of the above challenges, indicating that they encounter multiple obstacles when using public transport services to transport fish. This highlights the cumulative impact of limited storage space, inadequate handling, and inconvenient bus routes on their overall operations and the need for comprehensive solutions. Additionally, 4.9% of the vendors reported other challenges that were not specified in the provided options. These included the factors specific to their individual circumstances or unique challenges not captured in the given choices.

Overall, the data highlights the importance of addressing the identified challenges to enhance the efficiency and effectiveness of using public transport services for fish transportation. Improving storage facilities, implementing proper handling practices, and optimizing bus routes can contribute to better service delivery, ensuring the quality and freshness of fish and reducing inconvenience for the vendors.

Table 4.8 – Cross tabulation

Relation with the Household income (Daily) of the women fish vendors and the Mode of transportation they primarily rely on to transport the fish to the market

			What mode of transportation do you primarily rely on to transport your fish to the market?			Total
			Own vehicle	Public transportation	By walk	
Household income	Less than Rs 500	Count	1	59	3	63
		% Of Total	1.2%	72.8%	3.7%	77.8%
	500-1000	Count	0	18	0	18
		% of Total	0.0%	22.2%	0.0%	22.2%
	Total	Count	1	77	3	81
		% of Total	1.2%	95.1%	3.7%	100.0%

This Table indicates that the majority of women fish vendors across all income groups primarily rely on public transportation to transport their fish. Among vendors with a daily household income less than Rs 500, 59 vendors (72.8% of the total) use public transportation. In the income range of Rs 500-1000, 18 vendors (22.2% of the total) use public transportation. This indicates that public transportation is the most common and accessible mode of transportation for fish vendors, regardless of their income level.

A small percentage of women fish vendors, irrespective of their daily household income, rely on walking as a mode of transportation. Among vendors with a daily household income less than Rs 500, 3 vendors (3.7% of the total) transport fish by walking. No vendors in the income range of Rs 500-1000 reported relying on walking. This suggests that walking is less common among vendors, possibly due to longer distances or other logistical challenges. Among women fish vendors with a daily household income less than Rs 500, only 1 vendor (1.2% of the total) relies on their own vehicle for transportation. In contrast, no vendors in the income range of Rs 500-

1000 use their own vehicle. This suggests that due to limited financial resources, owning a vehicle may not be feasible for most vendors in the lower income bracket.

This data highlights that public transportation is the primary mode of transportation for women fish vendors in Pozhiyoor, regardless of their daily household income. This indicates the dependence on public transportation services for the transportation of fish to the market. The low ownership of vehicles among vendors in the lower income bracket suggests financial constraints as a significant factor. Understanding the transportation preferences and challenges faced by vendors can help in developing targeted interventions and improvements in public transportation systems to better cater to the needs of these vendors.

DISCUSSION

The study by Diana Tempelman (1987) examining the socio-economic status of fisherwomen in coastal villages of Vishakhapatnam District, Andhra Pradesh, acknowledged the significant role of women in the fish vending sector and shed light on their daily engagement in marketing fish. In this study, it was found that women fish vendors were actively involved in the fish vending industry for extensive periods, with many being active for more than 10 years. Similarly, Tempelman's study highlights that fisherwomen are engaged in fish marketing for 7-10 hours a day, indicating their substantial commitment to their livelihoods. In Tempelman's study, it is mentioned that buses are the primary mode of transportation for fisherwomen to cover longer distances, while bicycles and auto rickshaws are used for selling within the town limits. In the context of Pozhiyoor, the adequacy of transport services available to small-scale women fish vendors was assessed, and it was noted that they heavily rely on public transportation, especially auto rickshaws, for transporting fish. Tempelman's study concludes that women vendors generally receive higher revenue compared to other small business activities like coir making.

The study conducted by Blase (1982) on "Coastal Village Development in Adirampattinam" provides valuable insights that complement the findings of this study on "Occupational challenges encountered by small-scale women fish vendors in Pozhiyoor." Both studies shed light on the significant roles played by fisherwomen in the fishing industry, particularly in fish drying and selling activities. Similar to this study's findings, Blase's research highlights the engagement of fisherwomen in drying

and selling fish, especially from economically disadvantaged families. This aligns with this study's observations that many women vendors in Pozhiyoor come from lower-income households, emphasizing the importance of understanding the socio-economic context of women's participation in the fish vending sector. Blase's study also mentions the involvement of widows in fish vending, who have to support themselves. This finding resonates within this study's insights into the socio-demographic profile of women vendors, where widowed vendors constitute a significant portion of fish vendors in Pozhiyoor. Both studies recognize the vulnerability and economic challenges faced by women vendors, particularly those who are widowed and need to sustain their livelihoods.

Additionally, Blase's study emphasizes the transportation methods used by fisherwomen to sell fish, such as buses or traveling on foot to reach nearby agricultural villages or weekly markets. This finding aligns with focus on assessing the adequacy of transport services available to small-scale women fish vendors for accessing markets. It highlights the importance of efficient transportation options for women vendors to carry out their business activities effectively.

(K. Preethi and A. Krishnamoorthy, July 2021) The findings of this study align with the research on the challenges and opportunities faced by small-scale women fish vendors in Pozhiyoor. Both studies highlight the economic struggles and hardships experienced by fish vendors, particularly those operating at a smaller scale. In both studies, the income of vendors is a significant area of focus, with factors like job satisfaction, availability of quality fish, storage facilities, transportation costs, hygiene, and government support being examined in relation to their income levels. In both studies, there was a negative correlation between income and transportation costs. This indicates that high transportation expenses negatively impact vendors' income. The lack of adequate transport services was a common issue faced by small-scale fish vendors in various regions, affecting their profitability. Moreover, both studies point out the limited impact of government support on vendors' income.

4.2.4 Knowledge and practice of financial literacy among small-scale women fish-vendors

The fourth objective of the study aimed at assessing the knowledge and practice of financial literacy among small-scale women fish-vendors in Pozhiyoor. The researcher

looked at their financial literacy (awareness), training for financial literacy, various patterns of financial transactions and decisions as well as access to and availability of financial and material assistance for their trade.

Table 4.9

Pattern of financial transaction and financial decisions of fish vending

Financial literacy among the vendors		Frequency	Percent
financial transactions related to your fish vending	cash transactions only	81	100.0
	Financial decisions for vending business		
	Based on previous experience	4	4.9
	Based on market conditions	13	16.0
	Based on advice from others	4	4.9
	combination of factors	60	74.1
	Total	81	100.0

Financial transactions related to fish vending

Table 4.9 Indicates that cash is the primary mode of payment for their fish sales (100%). It is common for small-scale businesses, such as fish vending, to predominantly rely on cash transactions, especially in local and informal markets. Cash transactions offer simplicity, immediacy, and flexibility, making them a convenient choice for both vendors and customers in such contexts. It is important to note that the exclusive use of cash transactions may also present certain limitations. It may hinder the adoption of digital payment methods, which could potentially provide additional convenience and security for vendors and customers. By being aware of digital payment methods small-scale women fish vendors in Pozhiyoor can enhance their financial management, improve customer satisfaction, and position themselves for growth in an increasingly digital economy. Embracing digital payment methods aligns vendors with evolving market trends and consumer preferences. Additionally digital payment methods promote financial inclusion by enabling vendors to access formal financial services.

Having a digital payment account allows vendors to store and track their earnings, build a transaction history, and potentially access credit or other financial products in the future.

Financial decisions for vending business

Table 4.9 shows that the majority (74.1%) of the vendors reported making financial decisions based on a combination of factors. This suggests that most vendors consider multiple aspects, such as their own experience, market conditions, and advice from others, to arrive at their financial decisions. Only 4.9% of the vendors reported making financial decisions based on their previous experience. This suggests that a small percentage of vendors rely solely on their own past knowledge and insights when making financial decisions. Approximately 16% of the vendors consider market conditions when making financial decisions. This indicates that a portion of the vendors take into account the current state of the market, such as fish demand, pricing, and competition, to inform their financial choices. Another 4.9% of the vendors rely on advice from others when making financial decisions. This implies that a small percentage of vendors seek external guidance or opinions from trusted Co-workers to help them make financial choices. The data indicates that the financial decisions made by women fish vendors in Pozhiyoor are influenced by a combination of factors. While a small percentage relies on their previous experience or market conditions, others seek advice from other peers and consider a combination of factors to inform their decisions. This approach of considering multiple factors is generally a prudent approach as it allows vendors to take into account various aspects that can impact their business. By combining their experience with an understanding of market conditions and seeking guidance when needed, vendors can make more informed and well-rounded financial decisions.

Tracking of daily sales of the women fish vendors

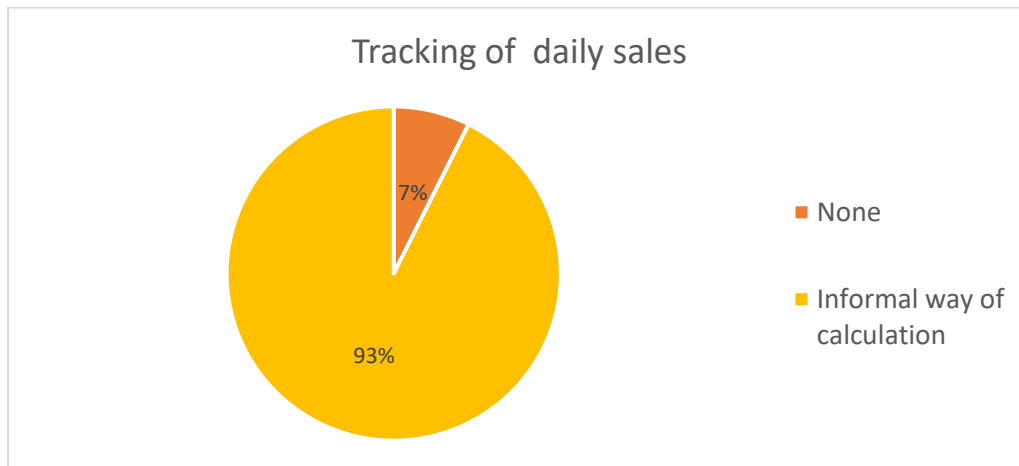


Diagram 4.16 - Pie-chart depicting the Tracking of daily sales of the women fish vendors

Diagram 4.16 shows that vast majority (92.6%) of the vendors rely on an informal way of calculation for managing their finances. This suggests that they may not have structured accounting systems or tools in place to accurately track their sales, expenses, and profits. Only 7.4% of the vendors reported tracking their daily sales. The data highlights a significant gap in the financial management practices of women fish vendors in Pozhiyoor. The low percentage of vendors tracking their daily sales and relying on informal calculations indicates a lack of structured financial management systems. This could potentially lead to challenges in accurately assessing business performance, identifying profit margins, and making informed financial decisions and potentially improve their overall profitability. Vendors should consider adopting a structured approach to record and track their daily sales transactions. This can include using paper-based ledgers, spreadsheets, or utilizing digital accounting tools or mobile applications.

Table 4.10 – Cross tabulation

Relation with Age of the vendors and their financial decisions for fish vending business

			How do you make financial decisions for your fish vending business?				Total
			Based on previous experience	Based on market conditions	Based on advice from others	combination of factors	
Age	36-45 years	Count	0	1	0	5	6
		% of Total	0.0%	1.2%	0.0%	6.2%	7.4%
	46-55 years	Count	2	5	2	19	28
		% Of Total	2.5%	6.2%	2.5%	23.5%	34.6%
	56 years and above	Count	2	2	2	36	47
		% Of Total	2.5%	2.5%	2.5%	44.4%	58.0%
Total	Total	Count	4	13	4	60	81
		% Of Total	4.9%	16.0%	4.9%	74.1%	100.0%

Financial decisions of age group 36-45 years

None of the respondents in this age group reported making financial decisions solely based on their previous experience. One respondent (1) indicated that they consider market conditions when making financial decisions. None of the respondents in this age

group reported making financial decisions based on advice from others. Five respondents (5) mentioned that they make financial decisions based on a combination of factors, which may include their previous experience, market conditions, and other considerations.

Age group 46-55 years:

Two respondents (2) reported considering their previous experience when making financial decisions. Five respondents (5) stated that they take market conditions into account for their financial decisions. Two respondents (2) mentioned that they rely on advice from others for financial decision-making. Nineteen respondents (19) mentioned that they make financial decisions based on a combination of factors, such as previous experience, market conditions, and advice from others.

Age group 56 years and above:

Two respondents (2) reported considering their previous experience when making financial decisions. None of the respondents in this age group mentioned considering market conditions for financial decision-making. Two respondents (2) stated that they rely on advice from others for financial decision-making. Thirty-six respondents (36) mentioned that they make financial decisions based on a combination of factors, such as previous experience and advice from others.

The data indicate that the percentage of respondents relying on a combination of factors increases with age, with the highest proportion in the 56 years and above age group (44.4%). Market conditions seem to have a relatively lower impact on financial decision-making, particularly for the age group 56 years and above. Across all age groups, there is a small percentage of respondents who base their financial decisions solely on their previous experience or advice from others. The majority of respondents in each age group make financial decisions based on a combination of factors, indicating a comprehensive approach to decision-making. The data reveals that women fish vendors in different age groups consider a variety of factors, including their own experience, market conditions, and advice from others when making financial decisions for their fish vending business.

Table 4.11*Pricing decisions and major expenses in running fish vending business*

Financial literacy		Frequency	Percent
Pricing decisions for selling fish	Market demand	16	19.8
	Cost of fish procurement	31	38.3
	Competition	9	11.1
	Seasonality	7	8.6
	combination of factors	18	22.2
	Total	81	100.0
Major expenses in running fish vending business	Fish procurement	79	97.5
	Transportation costs	1	1.2
	all of the above	1	1.2
	Total	81	100.0

Table 4.11 indicates that 16 respondents (19.8%) mentioned that they consider market demand when making pricing decisions for selling fish. This indicates that understanding the demand patterns and adjusting prices accordingly is a significant factor for these vendors. 31 respondents (38.3%) reported considering the cost of fish procurement when determining the selling price. This suggests that the vendors take into account the expenses involved in acquiring the fish, such as purchasing from fishermen or wholesalers, transportation costs, and other procurement-related expenses. 9 respondents (11.1%) stated that they factor in the competition when setting their fish prices. This implies that they assess the prices set by other vendors in the market and adjust their prices accordingly to remain competitive. 7 respondents (8.6%) mentioned that they consider seasonality in their pricing decisions. This means that they take into account the fluctuations in fish availability and demand that occur during different seasons, adjusting their prices accordingly. 18 respondents (22.2%) reported considering a combination of factors in their pricing decisions. This indicates that these

vendors take into account multiple factors, which may include market demand, cost of fish procurement, competition, and seasonality, to determine the optimal selling price.

The data suggests that small-scale women fish vendors in Pozhiyoor consider various factors when making pricing decisions for selling fish. The most commonly considered factors include the cost of fish procurement and market demand. These factors highlight the importance of balancing the expenses involved in obtaining the fish with the prevailing market demand to set competitive and profitable prices. Considering the competition and seasonality also shows the awareness of external factors that can impact the pricing strategy. Moreover, the fact that a significant percentage of vendors (22.2%) consider a combination of factors indicates a comprehensive approach to pricing decisions

Major expenses in running fish vending business

Table 4.11 Indicated that vast majority of the vendors (97.5%) consider fish procurement as a significant expense in their business. This expense includes the cost of purchasing fish from fishermen or fish markets to resell to customers. It is a vital component of their business operations and directly impacts their revenue and profitability. While only a small percentage (1.2%) mentioned transportation costs as a major expense, it still holds importance in the overall expenses. This expense includes the cost of transporting fish from the procurement source to the vending location or market. It can involve expenses related to Auto rickshaw charge and other transportation-related costs. A minimal percentage (1.2%) of the respondents selected "all of the above" as major expenses. This indicates that some vendors recognize both fish procurement and transportation costs as significant financial factors in their business operations. Overall, the data highlights the prominent role of fish procurement as the primary expense for fish vending businesses. It underscores the importance of managing and optimizing costs associated with purchasing fish. By focusing on efficient procurement strategies and controlling transportation costs, vendors can improve their profitability and overall financial performance.

Awareness of financial management training or resource for vendors



Diagram 4.17 - Pie-chart depicting the Awareness of financial management training or resource for vendors

Diagram 4.17 shows that majority of the fish vendors (82.7%) reported that they were not aware of any financial management training or resources. This suggests a potential gap in knowledge and access to formal financial management support in their business operations. The vendors may have limited exposure to financial planning, budgeting, record-keeping, and other essential financial skills necessary for running a successful and sustainable business.

While a small percentage (17.3%) of the respondents expressed their awareness of financial management training or resources, the number is relatively low. This indicates that only a fraction of the fish vendors in Pozhiyoor have access to or knowledge of available financial management support. The data highlights the need for increased awareness and provision of financial management training or resources for fish vendors. Such initiatives can equip vendors with essential financial skills and knowledge, helping them improve their financial practices, make informed decisions, and enhance the overall financial health and sustainability of their businesses.

Table 4.12*Rating of level of financial literacy and participation in financial management training*

Financial literacy		Frequency	Percent
Rating of level of financial literacy and financial management practices	Basic understanding	32	39.5
	Intermediate understanding	2	2.5
	Limited understanding	47	58.0
	Total	81	100.0
participated in any financial management training or utilized such resources	No	70	86.4
	Yes	11	13.6
	Total	81	100.0

Rating of level of financial literacy and financial management practices

Table 4.12 indicates that the majority of the fish vendors (58%) indicated a limited understanding of financial literacy and financial management practices. This suggests that they may lack essential knowledge and skills related to financial planning, budgeting, and record-keeping. This could potentially hinder their ability to make informed financial decisions and effectively manage their business finances. 39.5% of the fish vendors indicated that they have a basic understanding of financial literacy. This suggests that they possess some foundational knowledge and skills in financial management, which can be beneficial for their business operations. However, further improvement and education may be needed to enhance their financial literacy and management practices. Only 2.5% of the vendors reported an intermediate understanding of financial literacy. This indicates that a small portion of the vendors have a higher level of financial knowledge and skills, allowing them to make more informed financial decisions and manage their businesses more effectively. The data highlights the need for increased efforts to improve financial literacy among the fish vendors in Pozhiyoor. Providing targeted financial education and training programs can

help vendors enhance their understanding and skills in financial management, leading to more sustainable and successful business practices. By addressing the knowledge gaps and providing appropriate support, vendors can improve their financial decision-making capabilities and enhance the overall financial health of their businesses.

Participation in any financial management training or utilization of such resources

Table 4.12 indicates that the majority of fish vendors (86.4%) reported not participating in any financial management training. This suggests a potential gap in knowledge and skills related to financial management practices among the vendors. Lack of training opportunities or awareness about such resources are the contributing factors. Similarly, a small proportion of vendors (13.6%) indicated that they have received financial management training or utilized financial management resources. This indicates that only a limited number of vendors have sought out or had access to resources that can help improve their financial management practices. These findings highlight the need for increased efforts to provide financial management training and resources to fish vendors. Such initiatives can help vendors enhance their financial literacy, improve their understanding of financial management principles, and develop effective strategies for managing their businesses' finances.

Main factors contributing to the financial crises in fish vending business

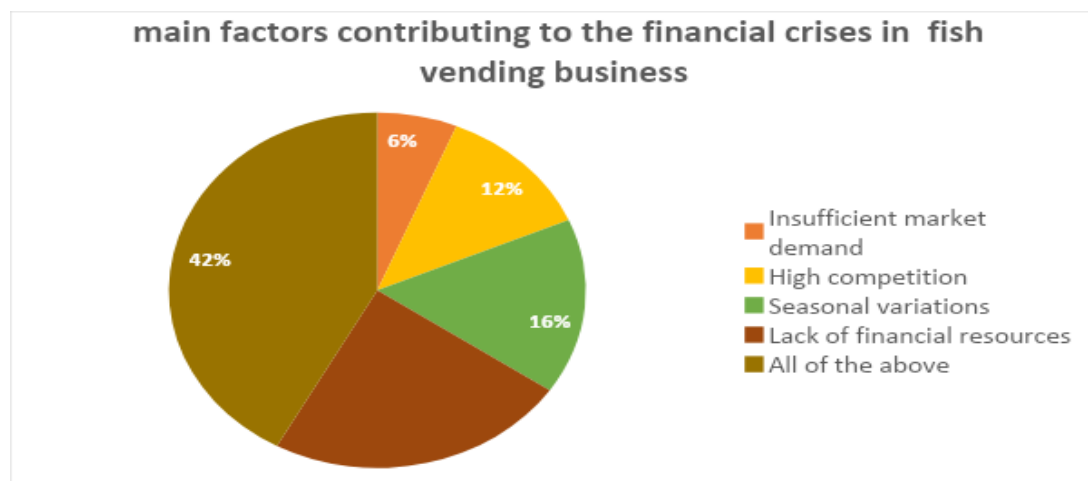


Diagram 4.18 - Pie-chart depicting the respondents based on their Main factors contributing to the financial crises in fish vending business

The Diagram 4.18 indicates that a substantial portion, 42%, indicated that all of the mentioned factors contribute to financial crises in the fish vending business. This suggests that fish vendors face multiple challenges simultaneously, making it more difficult to overcome financial hardships. The data highlights the complex and interconnected nature of financial crises in the fish vending business. Vendors face a combination of factors, including insufficient market demand, high competition, seasonal variations, and a lack of financial resources. These factors can amplify one another and create significant challenges for vendors in maintaining profitability and financial stability. The most significant factor reported by the respondents, at 24%, is the lack of financial resources. This refers to the insufficient funds and capital available to fish vendors to support their operations, purchase inventory, cover expenses, and invest in business growth. A lack of financial resources can limit vendors' ability to respond to market demands, adapt to changing conditions, and sustain their businesses over time. To address these financial crises, it is essential for fish vendors to develop strategies that focus on diversifying their customer base, differentiating their products, and managing cash flow effectively. Additionally, accessing financial resources, such as loans, grants, or financial assistance programs, can help vendors overcome the challenges associated with insufficient capital. Seasonal variations were identified by 16% of the respondents as a factor contributing to financial crises. In the fish vending business, seasonal variations can affect the availability and demand for certain types of fish. Fluctuations in fish supply and demand throughout the year can lead to inconsistent sales and financial instability for vendors. Approximately 12% of the respondents identified high competition as a contributing factor to financial crises. High competition in the fish vending industry means that vendors face challenges in attracting customers and maintaining market share. Intense competition can lead to price wars and lower profit margins, impacting the financial viability of vendors. 6% of the respondents stated that Insufficient market demand as a contributing factor to financial crises. It means there is a lack of customer interest or a decline in the number of potential buyers for fish products. This can lead to lower sales and revenue for fish vendors, ultimately impacting their financial stability. By addressing the underlying factors contributing to financial crises, stakeholders can assist fish vendors in achieving long-term financial sustainability and growth.

Barriers to Sustaining Small-Scale Fish Vending Job

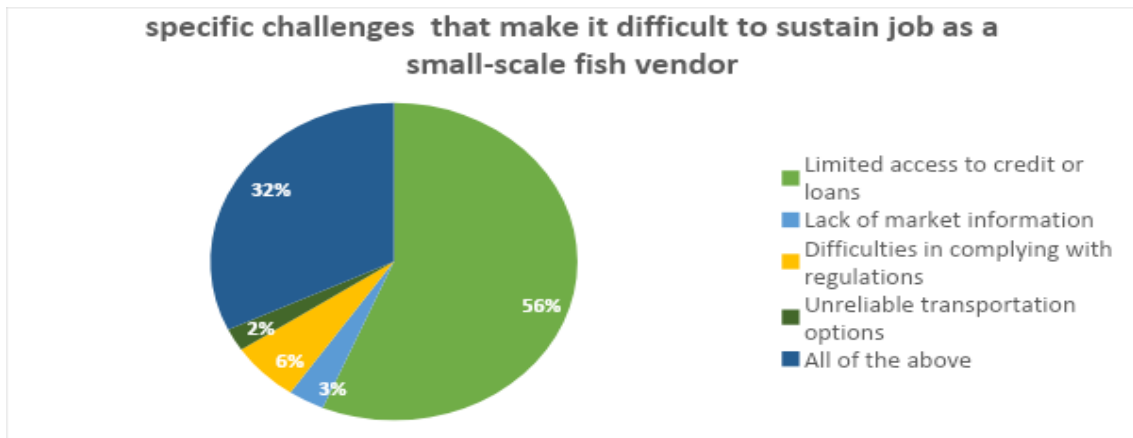


Diagram 4.19 - Pie-chart depicting the respondents based on their Challenges that make it difficult to sustain job as a small-scale fish vendor

Diagram 4.19 indicates the specific challenges that make it difficult to sustain the job as a small-scale fish vendor. Limited access to credit or loans, this challenge is reported by the highest percentage of respondents, at 57%. Limited access to credit or loans means that small-scale fish vendors face difficulties in obtaining financial resources to invest in their businesses, purchase inventory, or cover operational expenses. Without access to adequate financing, vendors may struggle to expand their operations, improve infrastructure, or cope with unexpected financial setbacks. Approximately 3.2% of the respondents identified a lack of market information as a challenge. Lack of market information means that vendors have limited knowledge about market trends, consumer preferences, pricing dynamics, and competitor activities. Without accurate and timely market information, vendors may find it challenging to make informed decisions regarding product offerings, pricing strategies, and marketing efforts. Difficulties in complying with regulations, this challenge accounts for 6.1% of the respondents' concerns. Small-scale fish vendors often face various regulatory requirements, including health and safety regulations, and compliance with fishing and trade laws. The data shows that 2.3% of the respondents identified unreliable transportation options as a challenge. Small-scale fish vendors rely on transportation systems to transport their products from fishing locations to markets or buyers. Unreliable transportation options, such as limited availability, irregular schedules, or inadequate infrastructure, can result in delays, spoilage of perishable products, and increased costs. These challenges can directly impact the vendors' ability to meet customer demand and maintain consistent

supply chains. A significant portion of respondents, 32.1%, indicated that all of the mentioned challenges contribute to the difficulty of sustaining the job as small-scale fish vendors. This suggests that these challenges are interconnected and reinforce one another, making it even more challenging for vendors to overcome them individually. The data highlights the multifaceted nature of challenges faced by small-scale fish vendors. Limited access to credit or loans, lack of market information, difficulties in complying with regulations, and unreliable transportation options collectively contribute to the difficulty of sustaining their jobs. These challenges can hinder the vendors' ability to invest in their businesses, make informed decisions, ensure compliance, and maintain efficient operations.

To address these challenges, various stakeholders can play a role. Government agencies can focus on improving access to financial services and developing tailored loan programs for small-scale Women fish vendors. Market information systems can be established to provide vendors with relevant and up-to-date information on market trends, prices, and consumer preferences. Regulatory agencies can work towards streamlining processes and offering support to help vendors comply with regulations effectively. Lastly, infrastructure development and investment in transportation systems can help ensure reliable and efficient transportation options for vendors.

Table 4.13

Impacts of Fish Price Fluctuations, Financial Access Challenges, and Income Stability

Financial Crisis		Frequency	Percent
Fluctuations in fish prices impacting financial stability	Significantly affect profitability	56	69.1
	Moderate impact on profitability	25	30.9
	Total	81	100.0
Challenges in accessing financial resources (e.g., loans, credit)	No	27	33.3
	Yes	54	66.7
	Total	81	100.0
	Highly unstable	20	24.7

Level of income stability in fish vending business	Moderately stable	14	17.3
	Somewhat stable	45	55.6
	stable	2	2.5
	Total	81	100.0

Table 4.13 shows that a significant portion of respondents, accounting for 69.1%, reported that fluctuations in fish prices have a significant impact on their profitability. This suggests that when fish prices fluctuate, it directly affects the vendors' ability to generate profits. Significant price fluctuations can lead to reduced profit margins, decreased revenue, and financial challenges for vendors. They may struggle to adjust their pricing strategies, manage costs, and maintain a stable income stream. Approximately 30.9% of the respondents indicated that fluctuations in fish prices have a moderate impact on their profitability. This suggests that while the impact is not as severe as the first group, there is still a noticeable effect on their financial stability. Moderate price fluctuations may require vendors to make adjustments to their pricing strategies, manage their expenses more carefully, and seek opportunities to diversify their product offerings or customer base.

The data highlights that fluctuations in fish prices are a significant concern for small-scale fish vendors and have a direct impact on their financial stability. The volatility in prices can pose challenges in maintaining consistent profits and managing their businesses effectively. To mitigate the impact of price fluctuations, vendors may need to adopt strategies such as closely monitoring market trends, diversifying their product range, establishing relationships with reliable suppliers, and exploring value-added opportunities. Additionally, it emphasizes the importance of financial management practices and strategies to help vendors navigate through these fluctuations. This may include budgeting, cost control measures, and building financial reserves to maximize profitability during periods of price volatility.

Challenges in accessing financial resources (e.g., loans, credit)

In undertaking their trade - fish-vending, these small-scale women fish-vendors experienced numerous challenges. In the present discussion, the researcher reverts back to the various tables cited under the various headings.

Specifically, Table 4.13 indicates that only a third of the respondents (33.3%) reported that they 'do not face challenges' in accessing financial resources. This suggests that these vendors may have established relationships with financial institutions or alternative sources of funding that enable them to meet their financial needs. Apparently, they may have a strong credit history, or other favourable factors that make it easier for them to access loans or credit. The rest of respondents (66.7%) opinionated that they 'faced challenges in accessing financial resources.' This highlights the difficulties small-scale women fish vendors encounter when trying to secure loans or credit for their businesses.

Limited access to financial resources can hinder their ability to expand their operations, purchase necessary equipment, and cover working capital needs. It may also limit their capacity to respond to market demands and take advantage of growth opportunities. Overall, the data suggests that a significant proportion of small-scale fish women vendors experience challenges in accessing financial resources, indicating a potential barrier to their business growth and sustainability. Access to affordable and timely financing is crucial for these vendors to overcome financial constraints and invest in their businesses. The lack of access to credit or loans may stem from various factors, such as limited collateral, perceived high risks associated with the industry, or a lack of awareness about available financial products and services

Level of income stability in fish-vending business

Table 4.13 indicates that among the respondents, 24.7% reported that their income in the fish vending business is highly unstable. This suggests that a significant portion of vendors experience frequent fluctuations or unpredictability in their income, which can make financial planning and budgeting challenging. On the other hand, 17.3% of respondents described their income as moderately stable. This implies that although some variability may exist, their income is relatively consistent and predictable to a certain extent. The majority of respondents, 55.6%, reported their income as somewhat stable. This suggests that while there may be occasional fluctuations, overall, their

income remains relatively steady and reliable. This group of vendors may experience some variations in income due to factors such as seasonal demand or market dynamics but can still maintain a reasonably stable financial situation.

A small proportion of respondents, 2.5%, stated that their income is stable. This indicates that their income remains consistent over time, with minimal fluctuations or uncertainty. Overall, the data suggests that income stability in the fish vending business is perceived differently among the respondents. While a significant portion of vendors experience some degree of income instability, there are also those who enjoy a certain level of stability in their earnings. Factors such as market conditions, customer demand, and the vendor's business strategies may contribute to the varying levels of income stability. Understanding the income stability challenges faced by women fish vendors is crucial for implementing measures to enhance their financial resilience. Providing support programs, financial management training, and access to financial resources can help vendors cope with income fluctuations and improve their overall income stability.

Overall support and assistance provided for achieving financial stability

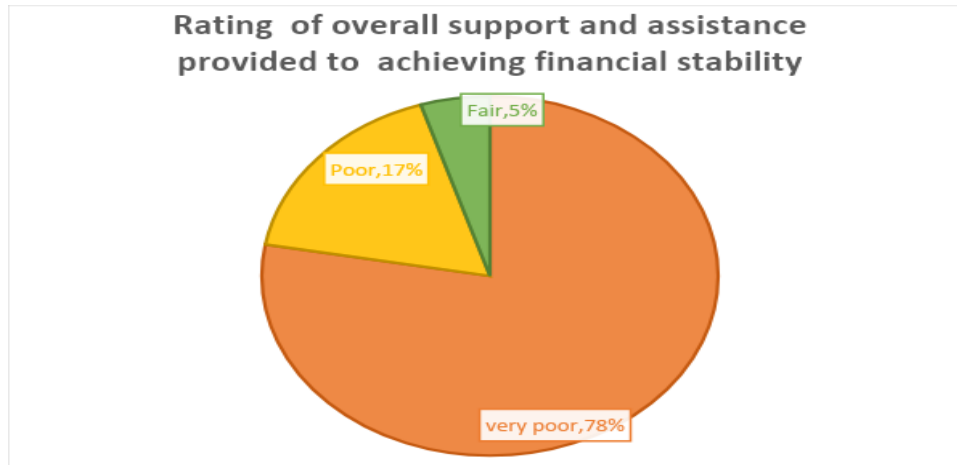


Diagram 4.20 - Pie-chart depicting the respondents based on their rating of overall support and assistance provided to achieving financial stability

The Pie-chart in Diagram 4.20 shows that more than three fourth (77.8%) of the respondents rated the overall support and assistance' as 'very poor', indicating that a large majority of the women vendors feel that the support and assistance they receive in achieving financial stability is insufficient. A smaller percentage of respondents, 17.3%, rated the overall support and assistance as 'poor', and only 4.9% of the

respondents rated the overall support and assistance as fair. This suggests that there are significant gaps in the support programs, resources, or initiatives available to them.

The data reflects a general dissatisfaction among the vendors regarding the support and assistance provided to achieve financial stability. This suggests a need for more effective and targeted support programs and initiatives to address the specific challenges and needs of fish vendors in attaining financial stability. Improving access to financial resources, offering financial management training, and implementing tailored support services could contribute to enhancing the overall support and assistance provided to these vendors. It is important for relevant authorities, organizations, and stakeholders to recognize the low ratings in order to identify areas for improvement and implement measures that better address the financial stability needs of Women fish vendors. By providing more comprehensive and effective support, the aim should be to empower vendors and enhance their financial resilience and stability in the long run.

4.2.5 Occupation challenges encountered by small-scale women fish-vendors in sustaining their fish-vending business

The final objective (Objective #5) accounts for the occupational challenges encountered by small-scale women fish-vendors in sustaining their fish-vending business. Based on the observation and interviews conducted during the study, the researcher identified several major challenges faced by small-scale women fish vendors in Pozhiyoor. These challenges can be categorized into three key areas: market-related infrastructure and working conditions, transportation and financial.

Infrastructure and Working Condition Challenges:

Market Infrastructure:

During the interview small-scale women fish vendors claimed to face certain challenges due to inadequate infrastructure. The infrastructure included, designated spaces, storage facilities, and sanitation amenities. Inadequate sanitation facilities make it challenging for vendors to maintain proper hygiene practices while handling fish. Limited access to clean water, improper waste disposal systems, and lack of washing facilities hindered their ability to meet hygiene standards. This can have implications for the health and safety of both vendors and consumers.

Hygiene-related problems

- The lack of proper handwashing facilities and sanitation measures may contribute to the spread of bacterial or viral infections associated with unhygienic handling practices
- Exposure to unhygienic working environments may lead to respiratory issues, skin infections, or other health problems. In the context of Pozhiyoor (town), where fish vending often took place in open-air markets, vendors were exposed to unhygienic working environments. Dust, dirt, and other pollutants present in the air can lead to respiratory diseases such as asthma and bronchitis, and exacerbated existing respiratory conditions among vendors.
- Pozhiyoor experienced high temperatures and humidity for a significant part of the year, posing health risks to vendors working in outdoor market environments. Prolonged exposure to heat and humidity lead to heat exhaustion, dehydration, and heat-related illnesses, including heat stroke.
- The lack of toilet facilities posed significant problems for women fish vendors in Pozhiyoor. The absence of accessible and clean toilet facilities in or near the market areas where they operate posed great inconveniences to the women fish-vendors. It was difficult for women vendors to access restrooms to maintain proper hygiene and sanitation practices during their working time. Without access to toilets, vendors were forced to use unhygienic alternatives, such as open defecation increasing the risk of contamination and the spread of diseases. It also affected the privacy and dignity of women vendors. The absence of designated and private spaces for personal hygiene needs can be particularly challenging for female vendors. The inability to relieve themselves, when necessary, can lead to discomfort, urinary tract infections, and other health issues. Holding urine for prolonged periods due to the lack of toilets made urinary tract infections and related complications very common in the long run.
- Insufficient safety measures, such as lack of first aid facilities, can result in delays in receiving necessary medical attention in case of emergencies such as knife cuts.
- The physical demands of the fish vending business, such as carrying heavy loads, standing for long hours, and repetitive movements, contributed to musculoskeletal problems. Women vendors reported back pain, joint stiffness,

muscle strains, and related injuries as a result of the physical strain imposed by their work.

- Women vendors often face difficulties in managing work-life balance, as their work hours go long and irregular. Juggling work responsibilities with household chores, caregiving duties, and other family commitments led to physical and mental exhaustion, impacting their overall well-being.
- Without proper storage facilities, vendors may struggle to maintain the quality and freshness of their fish products, affecting their market competitiveness.

Transportation and Accessibility

The lack of transportation options for small-scale women fish vendors in Pozhiyoor leads to several related problems that affect their daily operations and in turn their overall well-being. Transportation deficiencies and challenges in accessing markets due to limited and unreliable public transport options create a range of problems for small-scale women fish vendors in Pozhiyoor.

- Limited transport options force vendors to rely on alternative modes of transportation, such as auto rickshaws, which were more expensive. Higher transportation costs reduced substantially the vendors' profitability and ate into their already limited income. Increased transportation expenses can result in higher product prices, rendering them selling their fish.
- Limited and unreliable transportation options pose challenges in transporting perishable fish products to the markets. Extended travel times or delays during transportation can lead to quality deterioration of the products, reducing their market value and freshness. The absence of cold-storage facilities during transportation further exacerbated the issue, as vendors struggled to maintain the required temperature and quality of the fish.
- Delays in transportation and longer travel times can significantly impact the work-life balance of women vendors
- The limited transportation by way of bus routes and appropriate schedules in Pozhiyoor restricts the mobility options for women vendors. They have to wait for extended periods to catch a bus or travel longer distances to reach their desired market destinations. Limited transportation options contribute to time

constraints and given the perishable nature of their products render their daily operations unviable.

- Women vendors often encounter discrimination at the hands of bus conductors and other passengers while using public transportation. Bus conductors refuse to let them board or even provide adequate space for carrying fish and vessels. Some passengers exhibit disrespectful or judgmental attitudes towards women vendors, leading to discomfort and a hostile environment during their commute. Without adequate space, vendors have to resort to carrying their fish and vessels on their laps or in cramped conditions, posing challenges to their safety and the quality of their products. The absence of proper closed storage facilities causes foul smells while on the bus interiors, causing embarrassment and discomfort for both vendors and other passengers.
- Public buses in Pozhiyoor are often crowded, leaving limited seating availability for women vendors carrying their heavy loads. The overcrowded conditions can lead to physical discomfort, fatigue, and increased risks of accidents during the journey. Vendors have to stand for long periods, further adding to their physical strain and reducing their energy levels for the day's vending activities.
- Women vendors face social stigma or marginalization due to their occupation and the perception associated with it. Negative stereotypes or biases (they were addressed “*meen kari*”, “*thalla*”) by way of utter and gaze from other passengers result in feelings of humiliation, disrespect, and reduced self-esteem. Social stigma can also affect the vendors' interactions with other community members, hindering their social integration and overall well-being.

Financial Literacy and Access to Resources

Absent Financial Literacy

Small-scale women fish vendors in Pozhiyoor face challenges due to a lack of sufficient financial literacy and limited access to financial resources and credit facilities.

- Limited financial literacy led to vendors making ineffective or uninformed financial decisions related to their business operations. Lack of understanding about profit margins, pricing strategies, lack of estimation of overheads hinders their ability to maximize profits and ensure business sustainability.

- Without adequate financial knowledge and collateral, women vendors face challenges in accessing formal financial institutions and obtaining loans or credit facilities. Limited access to credit restricts their ability to invest in business expansion, purchase necessary equipment or storage facilities, or overcome financial emergencies.
- Insufficient financial literacy and limited access to resources limit the vendors' capacity for business expansion or possible diversification. Inadequate financial planning and lack of knowledge about investment opportunities and market trends result in missed growth opportunities.
- The lack of financial literacy hinders the vendors' ability to accurately track and record their daily sales and income. Absence of record-keeping (book-keeping) practices contribute to difficulties in assessing the profitability of their business, identifying trends, and making informed financial decisions.
- Limited awareness about available financial management training programs or resources prevents vendors from accessing valuable educational opportunities. Lack of knowledge about these resources result in missed chances to enhance their financial literacy and improve their business practices. Without proper training and support, they may lack the necessary skills to effectively manage their finances, make informed decisions, and adopt strategies for improving their financial practices.

Seasonality and unpredictability

- The fish vending sector is often characterized by market instability and intense competition among vendors. Unpredictable market conditions, such as changes in consumer preferences or shifts in supply chains, can disrupt the vendors' ability to consistently procure and sell their products and generate consistent revenue. Limited access to formal financial services, such as loans and credit facilities, can hinder women vendors' ability to obtain capital for business operations, expansion, or investment. Without adequate financial support, vendors struggle to manage purchase inventory, or address unexpected expenses, leading to financial instability.
- Reduced fish availability of fish during the trawling-ban imposed with the onset of monsoon imposes on the fish-vending women deep financial crises as vendors struggle to source sufficient quantities of fish for their businesses.

Climate Change and its impact

- Seasonal variations in fish availability and the ravages of climate change disrupt the vendors' ability to sustain a consistent supply of fish. Changes in weather patterns, water temperatures, and fish migration patterns due to climate change can affect the timing and abundance of fish catches. Unpredictable fishing seasons, reduced fish catch and the unavailability during certain periods reduce the income of women vendors causing financial instability.
- Climate change-induced impacts, such as sea-level rise and coastal erosion, led to the displacement of fishing communities, including women vendors. Forced relocation due to the loss of coastal areas or declining fish stocks can disrupt vendors' established market networks, customer base, and access to fishing grounds, causing significant financial and social upheaval.

Debt-trap

- Financial crises resulted in vendors being unable to meet their financial obligations, such as loan repayments, utility bills, or rent. This could lead to accumulating debts, penalties, and creating additional stress and financial burdens.
- Women fish vendors also face difficulty in accessing capital for business operations, expansion, or purchasing necessary equipment. Lack of capital hinders their ability to invest in their businesses, restock inventory, and implement necessary improvements.
- Banks and financial institutions have age-related criteria or policies that limit access to loans for individuals above a certain age. The perception that older individuals have limited repayment capacity due to shorter remaining work years can deter banks from providing loans. Banks typically assess loan applications based on the borrower's ability to repay the loan within a specified time frame. Older women fish vendors face challenges in meeting the bank's repayment requirements, leading to loan application rejections. They also face difficulties in providing adequate collateral, as they may have limited assets or properties in their name.
- Financial crises make women vendors more vulnerable to economic shocks, such as fluctuations in fish prices, natural disasters, or market disruptions.

Limited financial resources and lack of a safety net can exacerbate the impact of such shocks, making it difficult to recover and sustain their businesses.

- Women vendors often rely on loans from informal sources or moneylenders who charge exorbitant interest rates. The high interest rates make it challenging for women vendors to repay the loans, leading to increased debt burden and financial strain. They have multiple loans from different sources to meet their business and personal needs. Juggling multiple loan obligations was overwhelming, especially if the vendors' income is insufficient to cover the repayment amounts.
- Financial crises also result in significant emotional and psychological stress for women vendors. Worries about financial stability, debt burden, and uncertainty about the future can lead to anxiety, depression, and a sense of helplessness.
- The other challenges encountered by the women vendors include, often lack access to social security benefits, which leaves them financially vulnerable during times of crisis or emergencies. Many women vendors in Pozhiyoor do not have access to health insurance coverage, which puts them at risk of financial hardship in case of medical emergencies or healthcare expenses. The absence of health insurance coverage can deter women vendors from seeking timely medical treatment, leading to potential health complications and increased healthcare costs.
- Women vendors often lack retirement plans or pension schemes, which leave them financially insecure during their elderly years. Without adequate retirement planning or savings, women vendors struggle to meet their basic needs, including housing, healthcare, and daily living expenses, post-retirement.
- Women vendors in Pozhiyoor operate in the informal sector, which often lacks the regulatory framework and enforcement necessary for social security coverage. The informal nature of their work makes it challenging for women vendors to access formal social security benefits, leaving them exposed to financial risks and vulnerabilities.
- Social safety net programs, such as income support schemes or poverty alleviation initiatives, do not effectively reach women vendors in Pozhiyoor. The absence of targeted social safety nets leaves women vendors vulnerable to economic shocks, income instability, and limited avenues for support during challenging times.

DISCUSSION

The researcher observes challenges faced by the marginalization of fisherwomen on various fronts. Fish-vending women are most often discriminated and marginalized (Nair, 1998) due to their being forced to involve in 'less productive areas such as fish-vending and other post-harvest activities' forcing them to be relegated by male fishermen. Further small-scale women fish vendors have limited access to resources, poor infrastructure, and difficulties in accessing formal financial institutions (Nair, 1998). This relegation further exacerbates these challenges and hinder their economic empowerment and well-being. The absence of robust infrastructure, poor hygiene and sanitation, poor logistics, absence of financial planning among the participants coupled by the unpredictability and seasonality of the fishing industry, and climate change affected the women fish-vendors and pushed them into a debt-trap. Thus, the trade induced stress among the women fish-vendors. The study by (Nag et al.,2003) highlighted the stressors and health issues experienced by women working in fish processing, particularly related to the biological and environmental aspects of their work. The study findings highlight musculoskeletal pain as a significant health issue for women working in the fisheries sector. While the study by Nag et al. focus on women in fish processing, it also finds that women fish vendors also experience musculoskeletal pain due to the physical demands of their vending activities.

(Gracy,1997) suggests the establishment of credit and marketing co-operative societies managed by women as a solution to the problems faced by women fish workers in Karnataka. In the context of this study, this finding can be considered as a potential intervention to support women fish vendors in Pozhiyoor. By forming co-operative societies, women vendors gain access to financial support, better marketing opportunities, and collective bargaining power, which can address some of the financial challenges and market limitations identified in study. (Nayak and Navta ,1997) highlight the problem of scarcity and high prices of fish, which forces women fish processors and dry fish vendors in Andhra Pradesh to give up their traditional occupations and fall into the debt trap. This finding resonates with potential challenges faced by women fish vendors in Pozhiyoor, as scarcity and price fluctuations impact their livelihoods. To address this issue, this study explores the possibility of establishing better market linkages, providing access to cold storage facilities, or developing alternative income sources during periods of scarcity.

Findings from the present study aligns with some aspects cited in the study titled "Fisherwomen in Kerala, India" by (Leon, 2003). Both studies highlight the significant challenges and occupational hazards faced by women engaged in the fish vending industry. Similar to this study's findings, Leon's research indicates that fisherwomen face various occupational hazards, including physical and psychological violence. The lack of access to resources and disadvantaged living conditions mentioned in his study also resonate with the challenges identified in this study. Both studies emphasize the role of women as primary breadwinners in their families, despite facing barriers to resources and opportunities for economic empowerment.

The findings from Morales' study (1988) align closely with the observations and conclusions drawn in the study on "Occupational challenges encountered by small-scale women fish vendors in Pozhiyoor." Both studies recognize the multifaceted roles and contributions of women in fishing communities, emphasizing the crucial tasks they perform for the survival and welfare of their families and communities. Similar to this study's findings, Morales' research acknowledges that women in fishing communities are actively involved in various activities related to fishing, such as harvesting fish, making and mending fishing gear, processing, preserving, and marketing the catch. This highlights the significant and diverse roles that women play in the fishing industry, particularly in contributing to the post-harvest value chain. Both studies also emphasize the important but often overlooked role of fisherwomen and the need to recognize their vital contributions. Despite the essential tasks they undertake, fisherwomen tend to face powerlessness and vulnerability, and they often have limited decision-making power in matters that affect their lives. This resonates with this study's insights into the challenges faced by small-scale women fish vendors in accessing resources, finance, and decision-making opportunities.

The findings from William et al.'s study (1996) resonate with the challenges faced by small-scale women fish vendors in Pozhiyoor. Both studies highlight the economic struggles and hardships experienced by women in fishing communities, particularly in the face of adverse economic conditions. Similar to this study's findings, William et al.'s research acknowledges the difficult economic circumstances prevailing in the fishing communities they studied in Koko, Nigeria. They observed that the volumes of fish catches were diminishing, spoilage was increasing, and other sources of employment for women were disappearing. These challenges align with this study's

identification of the challenges faced by fisherwomen in sustaining their fish vending businesses, including issues related to market access, infrastructure, and financial literacy. (Srinath,1998) findings provide additional insights into the importance of empowering women in fishing communities. The study recognizes the significance of women's involvement in the fishing industry and the potential benefits of enhancing their skills, knowledge, and access to resources for income generation and overall community development.

The findings from Bavinck et al.'s study in (2008), which highlighted the significant impact of closed fishing seasons on the livelihoods of fish vendor women, was closely related and triangulated with the study on Pozhiyoor. Both studies shed light on the economic vulnerabilities and hardships faced by women engaged in fish vending. In this study, aim to assess the existing adequacy of infrastructure within the market environment affecting the operations of small-scale women fish vendors in Pozhiyoor. Bavinck et al.'s findings align with this objective by demonstrating that the closed fishing season creates a major challenge for fish vendor women in terms of income loss. This loss of income can be attributed to the decreased availability of fish during the closed season, leading to financial hardships and difficulties in making ends meet.

The findings from Pomeroy et al.'s study in (2020) on "Financial inclusion to build economic resilience in small-scale fisheries" are highly relevant and complementary to study in Pozhiyoor. Both studies address the financial challenges faced by small-scale fishing households and underscore the importance of financial inclusion to enhance their economic resilience. In this study, one of the objectives is to assess the knowledge of financial literacy and its application among small-scale women fish vendors in Pozhiyoor. Pomeroy et al.'s findings align with this objective by highlighting the lack of financial literacy and capability among fishing households as one of the obstacles to financial inclusion. This lack of financial knowledge can hinder the ability of fish vendor women to manage cash flow for personal necessities and business investments effectively. Moreover, this study also aims to identify the challenges faced by small-scale women fish vendors in sustaining their fish vending business. Pomeroy et al.'s findings further reinforce this objective by pointing out that inadequate financial knowledge and skills, along with the absence of valuable assets for securing loans, pose challenges for fishing households seeking access to formal financial services.

CHAPTER V: FINDINGS, SUGGESTIONS AND CONCLUSIONS

5.1 OVERVIEW OF THE CHAPTER

The present chapter provides a comprehensive wrap-up of the research, providing valuable insights into the occupational challenges encountered by small-scale women fish vendors in Pozhiyoor. The study titled “Occupational challenges encountered by small-scale women fish-vendors in Pozhiyoor, Thiruvananthapuram District” is a quantitative study and follows the positivist paradigm. It aims to understand the occupational challenges encountered by small-scale women fish-vendors in Pozhiyoor, Thiruvananthapuram District. It examines the adequacy of the existing market infrastructure, transport services available to small-scale women fish-vendors for accessing markets and customers, the extent of financial literacy and finally the challenges encountered by small-scale women fish-vendors in sustaining their fish-vending business.

The study pursued a cross-sectional research design and adopted simple random sampling by generating a sample of 81 samples from a sampling frame of 121 small-scale fish-vending women listed by the authorities. The study made use of the SPSS package to do descriptive analysis of the data generated from the sample. The summary of the key findings derived from the study, are provided below.

The findings are highlighted under the heading socio-demographic profile of the vendors, infrastructure shortcomings, transportation, financial literacy and the general challenges encountered by these vendors. Based on these findings, practical suggestions and recommendations are presented to address the identified challenges and improve the livelihoods of women vendors.

5.2 SUMMARY OF FINDINGS

1. Socio-Demographic Profile of the Respondents

- **Age and Participation:** The fish vending industry is primarily driven by older and middle-aged women. There is very limited participation from the younger generation of women.
- **Marital status:** Married women constitute a significant portion of women vendors with implications on their work-life balance.
- **Religious affiliation:** Women belonging to the Christian community have a strong presence in the small-scale fish-vending industry in Pozhiyoor

- Educational profile: The education background of small-scale women fish vendors in Pozhiyoor highlights a significant absence of formal education, followed by a notable presence of primary education. Secondary education remains relatively low among the respondents. This pattern underscores the prevailing lack of extensive formal education within this group, particularly in higher levels of schooling.
- Household sizes: Most of the households had more than 6 members; given the fact that small scale women fish-vendors often operate within large households, it impacted on their finances adding up to their financial woes.
- Income levels: A significant proportion of women vendors come from lower-income households, highlighting the precarious nature of their finances.
- Work-experience in the fish-vending industry: A majority of the small-scale women fish-vendors have more than 10 years of extensive experience in small-scale fish vending; this reflects on their expertise.

2. Adequacy of market-infrastructure

- Market infrastructure: Almost two-thirds / all of the women fish vendors cited the absence of designated spaces, proper storage facilities, and sanitation amenities hinders their ability to maintain hygiene, store products effectively, and provide a comfortable shopping experience for customers.
- Space availability: Given the large number of vendors and the limited space, the majority complained about the lack of space. Observably However, there was a significant gap in the availability of stalls with proper facilities for vendors, which impacted their hygiene standards and product display.
- Waste disposal: Vendors disposed of waste at the very market cite, dumped it in the nearby areas, or even directly into the sea. Thus, the total absence of waste disposal facilities for vendors, led to environmental pollution, presented health hazards, and had a negative impact on the overall market cleanliness.
- Toilet/Restroom facilities: The majority of vendors did not have any access to dedicated toilet/restroom facilities within the market premises. Instead, they relied on public facilities nearby or the goodwill of neighbouring houses or establishments, highlighting the need for dedicated facilities for women fish vendors. The absence of accessible and clean toilet facilities in or near market

areas creates challenges for maintaining hygiene, privacy, and dignity. Vendors resort to unhygienic alternatives and face discomfort, urinary tract infections, and other health issues.

- **Water supply:** Vendors face severe challenges due to a lack of water supply within the market area, hindering their ability to maintain hygiene and carry out their business activities effectively. Insufficient water supply impacts the cleanliness of fish, overall hygiene standards, and vendors' health and hygiene concerns. The inability to wash during the process of cleaning or finally as they left work affected their presentability, which was very embarrassing both for the women fish-vendors and the customers
- **Storage facilities:** The majority of vendors lack sufficient storage facilities for preserving fish products, indicating a need for improved storage options. Inadequate storage options can lead to compromised fish quality and operational challenges for vendors.
- **Sanitation and hygiene measures:** Most vendors reported a lack of proper sanitation and hygiene measures within the market, highlighting the need for improved measures to ensure cleanliness and hygiene standards. The absence of proper handwashing facilities and sanitation measures contributes to the spread of bacterial or viral infections associated with unclean handling practices. Vendors working in open-air markets are exposed to unhygienic environments, leading to respiratory issues, skin infections, and other health problems.
- **Heat-related risks:** High temperatures and humidity in Pozhiyoor pose health risks to vendors, including heat exhaustion, dehydration, and heat-related illnesses. The physical demands of the fish vending business led to musculoskeletal issues such as back pain, joint stiffness, and muscle strains.

3. Transportation and Logistics

- **Reliance on public transportation:** The vendors heavily rely on public transportation as their primary mode of transportation for transporting fish, irrespective of their daily household income.

- Preferred mode of transportation: Auto rickshaws are commonly used by vendors for transporting smaller quantities of fish efficiently due to their flexibility and convenience.
- Availability and frequency: The majority of vendors perceive public transportation to be available and operating with reasonable frequency in the locality. However, there were gaps or irregularities in availability and frequency of transportation reported by a notable portion of vendors.
- Convenience and capacity: While public transportation is generally perceived as convenient, there are definite impediments. Some vendors face challenges with overcrowding, and there is a need to ensure that public transportation has the capacity to accommodate their fish and equipment.
- Increased transportation cost: The most significant deficiency reported by vendors is the increased transportation cost, leading to financial burdens. This highlights the impact of escalating transportation adding to the overheads affecting the profitability costs on their overall business.
- Time efficiency and sales loss: Longer transportation time and delays in public transportation result in potential loss of sales for vendors, impacting their business operations.
- Limited bus routes and schedules: The limited availability of bus routes and schedules in Pozhiyoor restricts the mobility options for women vendors, leading to extended waiting times and longer travel distances.
- Negative attitudes and behaviours: Women vendors experience negative attitudes and behaviours from bus conductors and other passengers. Bus conductors exhibit discriminatory behaviours and refuse to provide adequate space for carrying fish and vessels. Some passengers display disrespectful or judgmental attitudes, creating a hostile environment during their commute.
- Storage issues: The absence of proper storage facilities leads to problems such as bad smells and contamination of bus interiors. Vendors have to carry their fish and vessels on their laps or in cramped conditions, impacting their safety and the quality of their products.
- Overcrowded buses: Public buses in Pozhiyoor are often crowded, leaving limited seating availability for women vendors carrying heavy loads. The overcrowded conditions result in physical discomfort, and fatigue. Vendors

have to stand for long periods, further adding to their physical strain and reducing their energy levels for vending activities.

4. Financial Literacy

- Lack of structured financial management systems: There is a significant gap in the use of structured financial management systems among women fish vendors in Pozhiyoor. The low percentage of vendors tracking their daily sales and relying on informal calculations suggests a lack of structured financial management practices.
- Factors influencing financial decisions: Financial decisions of vendors are influenced by a combination of factors, including personal experience, market conditions, and advice from others. This indicates a prudent approach to decision-making, considering various aspects that can impact their business.
- Pricing decisions: Vendors consider factors such as the cost of fish procurement and market demand when making pricing decisions. This highlights the importance of balancing expenses and market dynamics to set competitive and profitable prices.
- Allocation of earnings: Vendors prioritize either reinvesting in their business for growth and sustainability or allocating earnings towards personal expenses. Some vendors strike a balance between business development and personal financial stability.
- Lack of financial planning and budgeting: Vendors do not have a structured budget or financial plan for their vending business. This suggests a potential gap in financial planning and budgeting skills.
- Limited financial literacy and access to training: Vendors have a limited understanding of financial literacy and lack of essential knowledge and skills related to financial planning, budgeting, and record-keeping. They have not participated in any financial management training, indicating a need for increased access to such resources.
- Challenges and obstacles: Vendors face difficulties in areas such as budgeting, pricing decisions, and managing expenses. These challenges impact the profitability and sustainability of their businesses.

- Limited implementation of strategies: Vendors have not implemented specific strategies to improve their financial management practices, indicating a potential gap in their approach to enhancing financial performance and stability.
- Ineffective financial decision-making: Limited financial literacy among vendors leads to ineffective or uninformed financial decisions. This includes challenges in understanding profit margins, pricing strategies, cost management, and investment decisions, which hinder their ability to maximize profits and ensure business sustainability.
- Limited access to formal financial institutions: Women vendors faces difficulties in accessing formal financial institutions and obtaining loans or credit facilities due to their limited financial literacy and lack of collateral. This limited access to credit restricts their ability to invest in business expansion, purchase necessary equipment or storage facilities, or overcome financial emergencies.

5. Challenges to small-scale women fish-vendors in sustaining fish-vending business

- Multiplicity of factors precipitating financial crises: various factors such as limited access to credit, insufficient market demand, seasonal variations in the catch and demand, the perishability of their product (fish), all amplify each other as in a vicious cycle to pose serious difficulties in maintaining profitability and financial stability forcing them into a debt-trap.
- Fluctuations in fish prices: Fluctuations in fish prices pose a significant concern for vendors, directly impacting their financial stability
- Limited access to financial assistance: A significant proportion of vendors face challenges in accessing financial resources, hindering their business growth and sustainability. Access to affordable and timely financing is crucial for overcoming financial constraints and making necessary investments in their businesses.
- Lack of support during financial crises: Women vendors face difficulties in accessing support or assistance during financial crises. The absence of dedicated programs or resources to help vendors navigate challenging financial situations

can further exacerbate their financial instability and hinder their ability to recover or sustain their businesses.

- **Variation in income:** Income stability varies among vendors, influenced by factors such as market conditions, customer demand, and business strategies, besides the financial demands at home.
- **External factors:** Market conditions, natural disasters, and limited support and assistance contribute to the financial challenges faced by vendors. These factors, beyond their control, can significantly impact their sales, profitability, and overall financial well-being.
- **Lack of access to health insurance:** Many women vendors do not have access to health insurance coverage, leaving them financially vulnerable in case of medical emergencies or healthcare expenses.
- **Limited retirement plans or Pension schemes:** Women vendors often lack retirement plans or pension schemes, resulting in financial insecurity during their elderly years. Without adequate retirement planning or savings, they struggle to meet their basic needs, including housing, healthcare, and daily living expenses post-retirement.
- **Challenges of an informal sector:** Women vendors operate in the informal sector, which often lacks the necessary regulatory framework and enforcement for social security coverage.
- **Ineffective social safety-net:** Existing social safety net programs, such as income support schemes or poverty alleviation initiatives, do not effectively reach women vendors in Pozhiyoor. The absence of targeted social safety nets leaves them vulnerable to economic shocks, income instability, and limited avenues for support during challenging times.

5.3 SUGGESTIONS

- **Build and renovate market infrastructure:** Considering the fact that LSG at Pozhiyoor must build designated spaces, adequate storage facilities, and sanitation amenities. This will enable vendors to maintain hygiene standards, store products effectively, and provide a comfortable shopping experience for customers.

- Install waste disposal facilities: LSG in tandem with development banks need to install proper waste management infrastructure within the market area to prevent environmental pollution and health hazards. This must include waste disposal bins or designated areas for vendors to dispose of their waste properly. Raise awareness among vendors about the importance of proper waste disposal practices.
- Build toilet/restroom facilities: Install clean and accessible toilet/restroom facilities specifically catering to the needs of women fish vendors within the market premises. This will ensure their hygiene, privacy, and dignity, and reduce health risks associated with unhygienic alternatives besides improving the shopping experience and attracting customers from the city.
- Ensure access to water supply: Improve water infrastructure within the market area to provide vendors with a reliable water supply. This enables them to maintain hygiene and carry out their business operations effectively.
- Enhance storage facilities: Develop and provide sufficient storage facilities, ideally paid cold-storage facilities for vendors to preserve their fish products. This will help maintain the quality and freshness of their products and improve operational efficiency.
- Implement sanitation and hygiene measures: Establish and enforce proper sanitation and hygiene measures within the market, including hand washing facilities, regular cleaning routines, and waste management protocols. Provide vendors with training and awareness programs on best practices for maintaining hygiene and food safety.
- Mitigate heat-related risks: Create measures to address the health risks associated with high temperatures. This included providing shaded areas, access to clean drinking water to permit them to stay hydrated during hot weather. The LSG must create awareness about heat-related illnesses and their prevention among vendors.
- Improve public transportation capacity: Ensure that public transportation systems accommodate the fish-containers and equipment carried by women vendors. This involves providing designated spaces or compartments within buses or other modes of public transport to facilitate the transportation of perishable goods like fish.

- Address overcrowding: Take measures to mitigate overcrowding on buses and other modes of public transport. This can be achieved by increasing the frequency of buses or introducing additional services during peak hours to ensure that vendors have a comfortable and safe commuting experience.
- Sensitize bus conductors: Conduct training or awareness programs for bus conductors to promote respectful and accommodating attitudes towards women vendors. This can help eliminate discriminatory behaviours, ensure adequate space for vendors to carry their fish and equipment, and create a more inclusive and supportive commuting environment.
- Explore alternative transportation: Initiate dedicated 'paid' fish-transport for fish-vending women from fishing villages - Poovar, Poonthura, Marianad, etc. This may include dedicated transportation services or partnerships with local auto rickshaw operators to ensure efficient and convenient transportation for vendors and their products.
- Improve logistics of public transport: Do a thorough evaluation of bus routes and schedules in Pozhiyoor to identify gaps in routes and frequency especially during peak-hours to address the availability of transport. Introduce additional routes or adjust existing schedules to ensure better accessibility and reduced waiting times for women vendors.
- Monitor and regulate transportation costs: Collaborate with transportation authorities to monitor and regulate transportation costs for women vendors. This can help alleviate their financial burden and ensure that transportation costs are reasonable and affordable.
- Collaborate with private mass transportation providers: Establish partnerships or collaborations with private transportation providers, such as auto rickshaw operators or taxi services, to offer reliable and convenient transportation options for women vendors. This can provide them with more flexibility and efficiency in transporting their fish to markets.
- Financial literacy and training: Provide targeted financial management training programs to women fish vendors, focusing on topics such as budgeting, record-keeping, profit analysis, and financial planning. These programs should aim to enhance their financial literacy and equip them with the necessary skills to make informed financial decisions and manage their businesses effectively.

- Access to formal financial institutions: Collaborate with financial institutions to develop tailored financial products and services that cater to the needs of women fish vendors. This may include microfinance programs, low-interest loans, or credit facilities specifically designed for small-scale businesses in the fishing sector. Simplify loan application processes and consider alternative forms of collateral that vendors can provide, such as group guarantees or community-based collateral.
- Awareness campaigns: Conduct awareness campaigns to promote the importance of financial management and educate vendors about the benefits of adopting structured financial practices. These campaigns can include workshops, seminars, and community outreach programs to reach a wide audience and raise awareness about the significance of financial literacy.
- Collaboration with ngos and government agencies: Collaborate with non-governmental organizations (ngos) and government agencies to develop and implement comprehensive support programs for women fish vendors. This may involve financial literacy workshops, access to credit, business development services, and capacity-building initiatives.
- Market information and linkages: Facilitate access to market information and establish linkages between vendors and potential buyers, such as restaurants, hotels, or seafood distributors. This can help vendors identify market trends, adjust their product offerings, and establish stable market connections, reducing the impact of fluctuating fish prices and ensuring a steady demand for their products.
- Augmenting social safety nets: There is only very limited assistance or schemes for the fisher-community which contributes towards food-security of the urban. Hence, it is especially important to develop targeted social safety net programs specifically designed for women fish vendors. These programs can provide income support during financial crises, access to affordable healthcare, retirement planning support, and other social security benefits.
- Climate resilience and disaster preparedness: Support vendors in building climate resilience and disaster preparedness strategies. This can involve providing training on climate change adaptation, diversification of income sources, and promoting sustainable fishing practices. Building resilience to

natural disasters and climate-related challenges can help vendors mitigate the financial impacts of disruptions to their fishing activities.

- **Advocacy and representation:** Advocate for the rights and interests of women fish vendors at the local and regional levels. Raise awareness about their contributions to the local economy, highlight their specific needs and challenges, and work towards creating an enabling environment that supports their businesses. Representation in decision-making processes and engaging with relevant stakeholders can ensure that their voices are heard and their concerns are addressed. This could include international alliances which are a power to reckon with.
- **Networking and collaboration:** Foster networking to foster collaboration among women fish vendors. This can include establishing vendor associations or cooperatives where vendors can share experiences, pool resources, and collectively address common challenges.

By implementing these suggestions, small-scale women fish vendors in Pozhiyoor can overcome the challenges they face and sustain their fish vending businesses in a more financially stable and resilient manner.

5.4 SOCIAL WORK IMPLICATIONS

In the context of the multifaceted challenges encountered by small-scale women fish vendors in Pozhiyoor, the significance of social workers becomes evident as key facilitators and implementers of transformative initiatives. The amalgamation of social work principles with the practical strategies outlined in this research blueprint offers a comprehensive approach to foster sustainable change.

Empowerment and Capacity Building: Social workers design and facilitate training programs that focus on various aspects, such as financial literacy, Vending business management, hygiene practices, and climate resilience. Empowering women vendors with knowledge and skills enhances their confidence and ability to make informed decisions, manage their businesses effectively, and advocate for their rights.

Community Engagement: Social workers engage with the local community, including women fish vendors, their families, and other stakeholders, to build support networks, raise awareness about the importance of their contributions, and promote

inclusivity and collaboration. This involvement helps create a sense of belonging and strengthens the social fabric.

Advocacy and Policy Change: Social workers play a vital role in advocating for policy changes at the local and regional levels. They work with local authorities and government agencies to develop and implement policies that address the unique needs of women fish vendors, such as improved market infrastructure, transportation facilities, and access to financial services.

Counseling and Mental Health Support: The challenges faced by women fish vendors often lead to stress, anxiety, and mental health issues. Social workers provide counseling services and create safe spaces for vendors to share their concerns, seek emotional support, and learn coping strategies to manage stress effectively.

Gender Equality and Empowerment: Social workers work towards promoting gender equality by addressing gender-based discrimination and biases. They advocate for equal access to resources, opportunities, and decision-making processes, ensuring that women fish vendors are empowered to lead and participate in various aspects of their businesses and communities.

Collaboration with NGOs and Government Agencies: Social workers collaborate with NGOs, government agencies, and other stakeholders to implement comprehensive support programs for women fish vendors. These collaborations result in more effective and sustainable interventions that cater to the specific needs of the vendors.

Social Safety Nets and Welfare Programs: Social workers assist in designing and implementing social safety net programs tailored to the needs of women fish vendors. These programs provide essential support during times of crisis, improving their overall well-being and reducing vulnerabilities.

Cultural Sensitivity and Inclusivity: Social workers must be culturally sensitive and respect the local context and customs while implementing interventions. Understanding the cultural dynamics and addressing any cultural barriers ensures that the interventions are well-received and effective.

Research and Data Collection: Social workers contribute to ongoing research and data collection efforts to better understand the challenges faced by women fish

vendors, monitor the effectiveness of interventions, and refine strategies based on evidence and feedback.

Strengthening Social Networks: Social workers facilitate the establishment of vendor associations or cooperatives, which provide a platform for women vendors to share experiences, collaborate, and collectively address challenges. These networks foster solidarity and collective action.

Overall, social workers serve as catalysts for positive change in the lives of small-scale women fish vendors in Pozhiyoor by providing holistic support, advocating for their rights, and contributing to the development of sustainable and resilient communities.

5.5 CONCLUSION

Women small-scale fish vendors play a crucial and often overlooked role in the fish vending industry. Operating in markets and coastal communities worldwide, these women actively contribute to their households' income and local economies. The study on the occupational challenges encountered by small-scale women fish vendors in Pozhiyoor sheds light on the various challenges faced by these vendors and the potential areas for improvement. The findings reveal several key issues, including inadequate infrastructure facilities, waste management, lack of proper sanitation facilities, transportation challenges, Insufficient financial literacy, limited access to financial resources and other related challenges of the women fish vendors in Pozhiyoor. it is imperative to recognize the interconnected nature of these challenges and develop comprehensive solutions that consider the specific context of Pozhiyoor.

The introduction chapter provides a comprehensive overview of the research question, the fisheries sector as well as the concepts fish-vending and in particular small-scale women fish-vendors, besides problematising the occupational challenges encountered by small-scale women fish vendors in Pozhiyoor. It highlights the importance of economic empowerment and sustainability of women vendors in the community. The literature review chapter of the research presents current studies relevant to the research topic covering three main themes: significance of small-scale fisheries, women in fisheries, and challenges faced by women fish-vendors. Exploring these themes contributed to an overall understanding of the research topic and justified the significance of conducting the current study in Pozhiyoor. The methodology chapter outlines the quantitative nature of the research design taking a deductive approach

gathering data using a self-prepared interview schedule from a sample size of 81 gathered by way of simple random sampling.

The data analysis and interpretation chapter explicate the use of descriptive statistics aided by the Statistical Package for the Social Sciences (SPSS) software in examining the socio-demographic profile, market infrastructure, transportation services, and financial literacy. The findings shed light on the challenges encountered by small-scale women fish-vendors in the above-mentioned areas affecting their overall financial stability and business sustainability. The interpretation of the data brings forth a nuanced perspective on the complex interplay of factors impacting the vendors' work environment and identifies potential areas for improvement and support. Furthermore, the chapter compares the findings of this study with previous research and relevant studies in the field. It establishes connections and disparities between the current research and existing literature, identifying areas of convergence and divergence. The discussion with other studies' findings helps to validate the present study's results and adds depth to the interpretation of the data. By incorporating insights from other research, the chapter strengthens the overall understanding of the occupational challenges faced by small-scale women fish vendors in Pozhiyoor.

The study presents key findings related to the socio-demographic profile of the vendors, market infrastructure shortcomings, transportation issues, financial literacy, and the identified challenges. Based on these findings, practical suggestions and recommendations are offered to address the vendors' difficulties and improve their livelihoods. By enhancing market infrastructure, improving transportation options, promoting financial literacy, and advocating for social safety net programs, women fish vendors can overcome obstacles and sustain their businesses more effectively, leading to their economic empowerment and well-being. By implementing the suggested recommendations, stakeholders, including government authorities, financial institutions, and religious organizations in the community, can support the growth, profitability, and sustainability of small-scale women fish vendors in Pozhiyoor. These measures will contribute to improving the socio-economic conditions of the vendors and promoting inclusive economic development in the community.

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ANNEXURE

TOOL- Interview Schedule

SECTION 1: SOCIO DEMOGRAPHIC DETAILS

1. Name:
2. Age:
 - a. 18-25 years
 - b. 26-35 years
 - c. 36-45 years
 - d. 46-55 years
 - e. 56 years and above
3. Marital Status:
 - a. Single
 - b. Married
 - c. Divorced
 - d. Widowed
4. Religion:
 - a. Hindu
 - b. Muslim
 - c. Christian
5. Education
 - a. No formal education
 - b. Primary education (up to grade 5)
 - c. Secondary education (up to grade 10)
6. Household Size:
 - a. 1-2 members
 - b. 3-4 members
 - c. 5-6 members
 - d. More than 6 members

7. Household Income (Daily):

- a. Less than ₹500
- b. ₹500 -₹1000
- c. ₹2000-₹3000
- d. ₹3000 and above

8. Years of Involvement in Fish Vending:

- a. Less than 1 year
- b. 1-5 years
- c. 6-10 years
- d. More than 10 years

SECTION 2 : Evaluation of the existing infrastructure shortcomings within the market environment.

9. How would you rate the overall infrastructure facilities within the market environment for small-scale fish vendors in Pozhiyoor?

- a. Excellent
- b. Good
- c. Fair
- d. Poor

10. Are there any designated spaces/sheds specifically allocated for small-scale fish vendors in the Market?

- a. Yes
- b. No

11. If yes, are these spaces/sheds sufficient to accommodate all the small-scale fish vendors?

- a. Yes, more than enough
- b. Yes, just enough
- c. No, insufficient space

12 . Are there designated stalls or stalls with proper facilities (e.g., tables, chairs) for small-scale fish vendors?

- a. Yes
- b. No

13. Are there sufficient facilities for waste disposal within the market premises?

- a. Yes
- b. No

14. If no, how do you dispose the waste generated during fish vending activities currently?

- a. Leave it at the market premises
- b. Dump it in nearby areas
- c. Other (specify)

15. Are there sufficient restroom/toilet facilities available for small-scale fish vendors at the market?

- a. Yes
- b. No

16. If no, how do you manage restroom/toilet needs while working at the market?

- a. Use public facilities nearby
- b. Use nearby establishments' facilities
- c. No access to restroom/toilet facilities

17. Is there a reliable water supply within the market for cleaning fish and maintaining hygiene?

- a. Yes
- b. No

18. If no, how does the lack of adequate water supply and sanitation facilities affect your daily operations?

- a. Difficulties in cleaning fish

b. Health and hygiene concerns

c. Other (specify)

19. Are there sufficient storage facilities (e.g., refrigeration, ice) within the market for storing fish?

a. Yes

b. No

20. Are there proper sanitation and hygiene measures in place within the market environment?

a. Yes

b. No

21. Have you faced any safety concerns or accidents within the market environment due to infrastructure shortcomings?

a. Yes

b. No

22. How do the existing infrastructure shortcomings within the market environment affect your overall business operations and profitability?

a. Increased costs

b. Inefficient operations

c. Loss of sales or customers

d. Impact on fish quality

e. Other (specify)

23. Can you suggest some measures for improving the infrastructure facilities?

SECTION 3: Deficiency in public transport services available to small-scale fish vendors for accessing markets.

24. What mode of transportation do you primarily rely on to transport your fish to the market?

- a. Own vehicle
- b. public transportation
- c. Bicycle/motorcycle
- d. By Walk

25. If you use public transportation, please specify the type(s) of public transport you commonly used to transport your fish to the market

- a. Bus
- b. Taxi
- c. Auto-rickshaw

26. How frequently do these public transportation options operate in your area?

- a. Very frequently (multiple times per hour)
- b. Frequently (hourly)
- c. Infrequently (a few times a day)
- d. Rarely (once a day or less)
- e. Not sure

27. Are the public transportation options convenient in terms of their schedules and routes for small-scale fish vendors?

- a. Yes, very convenient
- b. Yes, somewhat convenient
- c. No, inconvenient
- d. Not applicable (do not use public transportation)

28. Do the public transportation options have enough capacity to accommodate your fish and equipment?

- a. Yes, always
- b. Yes, sometimes
- c. No, usually overcrowded

d. Not applicable (do not use public transportation)

29 .How do deficiencies in public transport services affect your overall business operations and profitability?

- a. Increased transportation costs
- b. Longer transportation time
- c. Loss of sales due to delays
- d. Other (specify)

30. Are there any specific challenges you face in using public transport services to transport your fish to the market?

- a. Limited space for fish storage
- b. Lack of proper handling and care for fish
- c. Inconvenient bus routes
- d. Other (specify)

31. How would you rate the overall adequacy of public transport services for small-scale fish vendors in accessing markets?

- a. Excellent
- b. Good
- c. Fair
- d. Poor

SECTION 4 : Knowledge and practice of financial literacy among small-scale women fish-vendors in Pozhiyoor

32.How do you manage your financial transactions related to your fish vending business?

- a. Cash transactions only
- b. Bank transactions only
- c. Combination of cash and bank transactions
- d. Other (specify)

33. Do you maintain separate financial records for your fish vending business?

- a. Yes
- b. No

34. If yes, what kind of financial records do you maintain?

- a. Sales records
- b. Expense records
- c. Profit and loss statements
- d. Receipts and invoices
- e. None

35. How do you make financial decisions for your fish vending business?

- a. Based on previous experience
- b. Based on market conditions
- c. Based on advice from others (e.g., family, peers)
- d. Combination of factors
- e. Other (specify)

36. What factors influence your pricing decisions for selling fish?

- a. Market demand
- b. Cost of fish procurement
- c. Competition
- d. Seasonality
- e. Other (specify)

37. How do you allocate your earnings from fish vending?

- a. Reinvestment in the business
- b. Personal expenses
- c. Savings
- d. Repayment of loans

e. Other (specify)

38. Do you have a budget or financial plan for your fish vending business?

a. Yes

b. No

39. If yes, how often do you review and update your budget or financial plan?

a. Monthly

b. Quarterly

c. Annually

d. Irregularly

40. What are your major expenses in running your fish vending business?

a. Fish procurement

b. Transportation costs

c. Market fees or rent

d. Packaging materials

e. Other (specify)

41. Are you aware of any financial management training or resources available for small-scale fish vendors?

a. Yes

b. No

42. If yes, have you participated in any financial management training or utilized such resources?

a. Yes

b. No

43. How would you rate your level of financial literacy and understanding of financial management practices?

a. Basic understanding

b. Intermediate understanding

c. Advanced understanding

d. Limited understanding

44. Have you faced any specific financial challenges or difficulties in managing your fish vending business?

a. Yes

b. No

45. Have you implemented any strategies to improve your financial management practices?

a. Yes

b. No

46. What do you perceive as the main factors contributing to the financial crises in your fish vending business?

a. Fluctuating fish prices

b. Insufficient market demand

c. High competition

d. Seasonal variations

e. Inadequate infrastructure

f. Lack of financial resources

g. Other (specify)

47. Are there any specific challenges or obstacles that make it difficult to sustain your job as a small-scale fish vendor?

a. Limited access to credit or loans

b. Lack of market information

c. Inefficient supply chain

d. Lack of proper storage facilities

e. Difficulties in complying with regulations

f. Unreliable transportation options

g. Other (specify)

48. How do fluctuations in fish prices impact your financial stability?

- a. Significantly affect profitability
- b. Moderate impact on profitability
- c. Minimal impact on profitability
- d. No impact

49. Have you faced challenges in accessing financial resources (e.g., loans, credit) for your fish vending business?

- a. Yes
- b. No

50. Are there any existing support or assistance programs available to small-scale fish vendors to overcome financial crises or hardships?

- a. Yes
- b. No

51. How effective do you consider the existing support or assistance programs in addressing the financial challenges faced by small-scale fish vendors?

- a. Highly effective
- b. Moderately effective
- c. Ineffective
- d. Not applicable (if not utilized)

52. Have you received any financial management training or support to improve your financial stability and management practices?

- a. Yes
- b. No

53. How would you describe the level of income stability in your fish vending business?

- a. Highly unstable
- b. Moderately unstable

- c. Somewhat stable
- d. Stable

54. How would you rate the overall support and assistance provided to small-scale fish vendors in achieving financial stability?

- a. Excellent
- b. Good
- c. Fair
- d. Poor

SECTION 5: Challenges encountered by small-scale women fish-vendors in sustaining their fish-vending business