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A MULTIDIMENSIONAL ANALYSIS OF OCCUPATIONAL MOBILITY AMONG FISHERWOMEN IN COASTAL KERALA USING PUSH-PULL THEORY APPROACH

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Abstract

This study investigates the occupational transitions of fisherwomen in Kerala, India, through a comprehensive multidimensional push-pull framework, integrating personal, social, institutional, and economic factors. The survey data collected from the coastal districts of Trivandrum, Kollam, and Alappuzha, the research examines how a combination of health hazards, unsafe workplace conditions, domestic responsibilities, social stigma, lack of recognition, policy interventions, and access to entrepreneurial avenues influence fisherwomen's decisions to shift occupations. By employing descriptive statistics and independent t-tests, the study compares intra-sector mobility (within the fisheries sector) and inter-sector mobility (into non-fisheries occupations), showing distinct push and pull factors in each group. The theoretical grounding incorporates Human Capital Theory, Push-Pull Theory, Structural Mobility Theory, and Social Network Theory, enabling a nuanced understanding of how educational attainment, structural economic changes, and social relationships mediate occupational change. Findings underline the pivotal role of institutional facilitation, economic incentives, social capital, and personal agency in shaping pathways of occupational mobility. The results reveal that occupational transitions are not solely driven by economic need but also by aspirations for dignity, and sustainable livelihoods, positioning fisherwomen as active agents in reshaping their socioeconomic realities.

Keywords: *Occupational Mobility, Fisherwomen, Kerala, Push-Pull Factors, Social Networks, Human Capital Theory, Structural Mobility, Social Network Theory, Intra-sector Mobility, Inter-sector Mobility.*

Occupational mobility plays a vital role in reshaping economic participation and social empowerment, especially among marginalized communities such as fisherwomen. Studies have increasingly recognized that traditional occupations, particularly in fisheries, are being disrupted by a range of structural, economic, and gender-based factors (Salagrama, 2006; Ramachandran et al., 2013). These disruptions are prompting a shift in livelihood strategies, where women are compelled to transition either within the fisheries sector or to entirely new occupational domains. This transformation is shaped by both push factors—such as occupational health risks, low wages, and social discrimination—and pull factors—such as better financial prospects, access to training, and institutional support (Nayak & Vijayan, 2017; Béné et al., 2016). Existing literature emphasizes the gendered nature of labor in coastal economies and highlights the limited recognition and support afforded to women engaged in fisheries (Williams, 2008; Weeratunge et al., 2010).

This study seeks to examine the extent to which push and pull factors affect the occupational transitions of fisherwomen in coastal Kerala and how these transitions contribute to their empowerment. By analyzing intra-sectoral and inter-sectoral mobility patterns, the study aims to identify the personal, social, institutional, and economic variables that facilitate or hinder such transitions. In doing so, the study applies a multidimensional framework grounded in Push-Pull Theory, Human Capital Theory, and Structural Mobility Theory to offer a comprehensive understanding of women's occupational change.

The central hypothesis of the study is that push and pull factors significantly differ between fisherwomen who remain within the fisheries sector and those who move into other sectors, and that these factors have a measurable impact on their perceived empowerment. If supported by empirical evidence, this hypothesis would offer policy-relevant insights into the design of interventions aimed at supporting women's livelihood transitions and empowerment in coastal communities.

2. Theoretical Framework Development and Measurement of Constructs

2.1. Occupational Mobility

Occupational mobility refers to the movement of individuals from one job or occupational group to another, either within the same sector (intra-sectoral) or to a different sector (inter-sectoral). It reflects both voluntary and involuntary shifts driven by a complex interplay of personal, social, institutional, and economic factors (Breen, 2004; Bukodi & Goldthorpe, 2011). For marginalized communities such as fisherwomen, occupational mobility is not merely a matter of economic change but a reflection of broader social transformation and empowerment (Weeratunge et al., 2010; Ramachandran et al., 2013).

This study draws upon a multidimensional theoretical framework integrating Push-Pull Theory, Human Capital Theory, Structural Mobility Theory, and Social Network Theory. Push-Pull Theory helps explain why fisherwomen leave traditional fishing roles—due to push factors such as low income, health risks, and gendered labor exploitation—and what draws them into new roles—such as better income, job security, and social acceptance (Lee, 1966; Hagen-Zanker, 2008). Human Capital Theory (Becker, 1964) provides a lens to assess how education, training, and skill acquisition influence women's capacity to transition into more empowered roles. Structural Mobility Theory (Blau & Duncan, 1967) helps analyze how larger socio-economic forces, such as policy interventions or labor market shifts, create new occupational spaces. Social Network Theory (Granovetter, 1973; Lin, 2001) explains how kinship, community ties, and women's groups help facilitate occupational shifts through support, information, and opportunity.

This integrated framework allows for a comprehensive analysis of both individual-level agency and structural-level constraints affecting fisherwomen's occupational mobility.

2.2. Dimensions of Push and Pull Factors

2.2.1. Personal Factors

Personal push factors include aspects such as occupational health hazards, long working hours, physical strain, and domestic gender-based discrimination. These issues often compel fisherwomen to abandon traditional fishing-related activities. On the other hand, personal pull factors—such as aspirations for personal growth, interest in entrepreneurship, or acquiring new skills—can drive women toward new roles that offer a sense of dignity and purpose.

2.2.2. Social Factors

Social stigma, lack of recognition, and caste- or gender-based exclusion often act as push factors discouraging women from continuing in traditional roles. Conversely, the presence of social support systems, peer encouragement, and collective identity in self-help groups can act as pull factors guiding them toward alternative livelihoods.

2.2.3. Institutional Factors

Lack of formal recognition, absence of policy support, or inadequate access to credit and schemes act as institutional push factors. Institutional pull factors, however, include training programs, government schemes, NGO support, and women-centric policies which provide a platform for fisherwomen to seek and sustain new livelihoods.

2.2.4. Economic Factors

Economic push factors include income instability, rising costs of fishing operations, and market volatility. Pull factors encompass better income prospects, financial independence, and access to microfinance or entrepreneurial ventures in allied or non-fishing sectors.

Methodology

The aim of this study is to explore the drivers of occupational mobility and the role of push and pull factors in shaping empowerment among fisherwomen in the coastal districts of Kerala. The major constructs of the study include personal, social, institutional, and economic push and pull factors, as well as indicators of empowerment outcomes. These constructs were developed based on theoretical grounding from the Push-Pull Theory, Human Capital Theory, and Structural Mobility Theory.

To measure the personal push factors, indicators such as occupational health risks, workplace harassment, long working hours, and gender discrimination within domestic and work spheres were incorporated, based on previous literature (Ramachandran et al., 2013; Nayak & Vijayan, 2017). Social and institutional push factors included lack of recognition, social stigma, and weak institutional support (Salagrama, 2006). Economic and personal pull factors were assessed using items that captured better income opportunities, flexibility in working conditions, access to skill development, and improved quality of life.

The initial questionnaire was developed through literature-informed item generation, followed by content validation from experts in gender studies, fisheries, and rural development. Based on their feedback, the language and phrasing of several items were revised to ensure contextual clarity and cultural relevance. A pilot study was then conducted among 30 fisherwomen in Trivandrum, Kollam, and Alappuzha districts. The feedback from this pilot was used to finalize the structure and wording of the questionnaire.

The final instrument included four major components: personal push and pull factors (8 items), social factors (9 items), institutional pull factors 3 items), economic factors (8 items) All responses were recorded using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was administered among fisherwomen who had undergone either intra-sectoral (within fisheries) or inter-sectoral (outside fisheries) occupational mobility

Data collection was conducted across selected coastal villages in the districts of Trivandrum, Kollam, and Alappuzha. Out of 350 distributed questionnaires, 309 valid responses were retained after rigorous screening for completeness and consistency. Respondents were categorized into two primary groups: intra-sector workers (those remaining within traditional fishery-related occupations) and inter-sector workers (those who transitioned into alternative sectors such as retail, hospitality, education, or self-employment). This classification enabled a comparative analysis of push and pull factors influencing occupational mobility among fisherwomen in the region.

Descriptive statistics were used to explore trends in the responses. In order to assess the differences in push and pull factor perceptions between intra-sector and inter-sector fisherwomen, independent sample t-tests were conducted. The results enabled comparisons of group means and revealed the statistical significance of specific factors influencing occupational mobility. All statistical analyses were performed using SPSS software, and the results were interpreted in light of the theoretical framework that integrates structural, economic, and agency-based understandings of occupational change among women in marginalized coastal communities.

5. Results and Discussion

5.1 Personal Push and Pull Factors

Descriptive analysis shows high intra-sector mean scores for occupational health hazards (4.438), harassment (3.790), and long working hours (3.549). In contrast, inter-sector workers report slightly lower scores, suggesting that health risks and stress act as significant push factors. Pull factors such as support from family (4.423), healthier work environment (4.342), and improved working hours (4.101) rate high among inter-sector workers. The desire for personal growth is notably stronger among intra-sector workers (3.401 vs. 2.402), suggesting early-stage aspirations (Table 5.1).

Personal Factor	Group	Mean	SD	T	df	p-value
Occupational Health Hazards	Intra	4.438	0.730	3.222	308	0.001*
	Inter	3.913	1.330			
Harassment & Discrimination	Intra	3.790	1.089	1.644	308	0.101
	Inter	3.537	1.307			
Long Working Hours	Intra	3.549	0.971	2.908	308	0.004
	Inter	3.087	1.479			
Desire for Personal Growth	Intra	3.401	1.055	7.293	308	0.000
	Inter	2.402	1.474			
support from family	Intra	4.340	0.706	-6.457	197	0.000*
	Inter	4.423	0.823			
Healthier work environment	Intra	4.265	0.721	-4.812	207	0.000*
	Inter	4.342	0.949			
Improved working hours	Intra	4.093	0.667	-3.457	201	0.001*
	Inter	4.101	0.898			

Source: Primary Data

A t-test for personal push factors reveals significant differences for occupational health hazards ($t = 3.222$, $df = 308$, $p = 0.001^*$) and long working hours ($t = 2.908$, $df = 308$, $p = 0.004^*$), suggesting stronger pressures within intra-sector

employment. The test for harassment and discrimination ($t = 1.644$, $df = 308$, $p = 0.101$) shows no significant difference across groups. In contrast, personal pull factors such as family support ($t = -6.457$, $df \approx 197$, $p = 0.000^*$), healthier work environment ($t = -4.812$, $df \approx 207$, $p = 0.000^*$), and improved working hours ($t = -3.457$, $df \approx 201$, $p = 0.001^*$) are significantly higher for inter-sector workers, indicating strong pull motivations. The desire for personal growth ($t = 7.293$, $df = 308$, $p = 0.000^*$) is notably higher in the intra-sector group, reflecting early-stage transition intent.

5.2 Social Push and Pull Factors

Descriptive analysis reveals moderately high intra-sector mean scores for social push factors such as negative attitude from society (3.617), social marginalisation (3.494), and lack of familial recognition (3.506). These suggest that stigma, exclusion, and gendered undervaluation continue to affect fisherwomen who remain in traditional occupations. Interestingly, the absence of governmental recognition and support scores higher among inter-sector workers (3.456 vs. 2.809), reflecting a retrospective critique from those who have transitioned to new sectors. In terms of social pull factors, inter-sector workers report consistently higher scores across all dimensions. Notably, they indicate stronger desire for community engagement (3.846), improved social connections (3.940), and better access to education and healthcare (3.584), compared to intra-sector workers. These findings underscore the appeal of broader social integration, prestige, and supportive environments as key motivators for occupational transition (Table 5.2a)

Social Factor	Group	Mean	SD	t	Df	p-value
Negative attitude from society	Intra	3.617	1.075	3.140	309	0.002
	Inter	3.208	1.280			
Social marginalisation and exclusion	Intra	3.494	1.035	1.787	309	0.075
	Inter	3.255	1.258			
Lack of recognition in family and society	Intra	3.506	1.029	-0.134	309	0.894
	Inter	3.523	1.171			
Male Supremacy	Intra	3.309	1.121	0.423	308	0.673
	Inter	3.248	1.235			
Govt. Recognition	Intra	2.809	0.636	5.946	308	0.000*
	Inter	3.456	1.081			
Social Prestige	Intra	3.395	0.643	3.936	308	0.000*
	Inter	3.826	1.184			
Social Participation	Intra	3.457	0.580	-3.759	210	0.000*
	Inter	3.846	1.011			
Desire for a supportive workplace	Intra	3.877	0.608	1.785	230	0.076
	Inter	4.081	1.205			
Better access to education and healthcare	Intra	3.019	0.948	4.276	205	0.000*
	Inter	3.584	1.356			

Source: Primary Data

The t-test results indicate no statistically significant difference in the overall social push factors between intra-sector and inter-sector workers ($t = 0.094$, $df = 309$, $p = 0.926$). This suggests that both groups experience similar levels of negative social attitudes, marginalisation, and gender-based discrimination related to fishery jobs. However, one specific item—"Negative attitude from society towards fishery activities"—shows a significant difference ($p = 0.002$), with intra-sector workers reporting a higher mean score (3.617) than inter-sector workers (3.208), highlighting the persistent stigma faced by those still in the fishery sector. Additionally, inter-sector workers report significantly more concern over governmental neglect (mean = 3.456, $p = 0.000$), likely reflecting a stronger critique post-transition.

In contrast, the overall social pull factors exhibit a statistically significant difference ($t = -4.968$, $df \approx 199$, $p = 0.000$), with inter-sector workers scoring higher (mean = 3.855) compared to intra-sector workers (mean = 3.456). This reflects that inter-sector workers are more motivated by the desire for social recognition, broader community engagement, better social connections, and improved access to education and healthcare. Each of these individual pull items shows a significant difference, with p-values well below 0.05, confirming that social upliftment and integration serve as key attractions for fisherwomen moving to other sectors.

5.3 Institutional Push Factors

Descriptive data (Table 5.1a) further show that women in the intra-sector report stronger access to institutional support—particularly training programs ($M = 4.66$) and linkages with financial institutions ($M = 4.32$)—compared to inter-sector women ($M = 3.98$ and 3.57 , respectively). This suggests that women who remain in fisheries-related occupations are more exposed to institutional interventions like government schemes or SHG training, potentially due to targeted programs within marine sectors. However, the lack of such structured support among inter-sector workers likely compels them to leave the sector entirely, indicating a missed opportunity for retention through stronger institutional facilitation.

Items	Category	Mean	SD
Trainings	Intra-sector	4.660	0.559
	Inter-sector	3.979	1.333
Linkage with Fis	Intra-sector	4.321	0.617
	Inter-sector	3.571	1.215
Information Support	Intra-sector	4.167	0.623
	Inter-sector	3.490	1.334

Source: Primary Data

Institutional push factors show significant differences in three areas: lack of permanent employment ($t = 5.662$, $df = 309$, $p = 0.000^*$), seasonal nature of jobs ($t = 5.357$, $df = 309$, $p = 0.000^*$), and absence of job benefits ($t = 3.661$, $df = 309$, $p = 0.000^*$), with higher scores for intra-sector workers. Gender bias in work allocation ($t = 1.643$, $df = 309$, $p = 0.101$) and lack of worker protection ($t = 1.913$, $df = 309$, $p = 0.057$) are not statistically significant. On the pull side, institutional incentives ($t = -6.570$, $df \approx 201$, $p = 0.000^*$) and job security ($t = -6.104$, $df \approx 203$, $p = 0.000^*$) are strong attractors for inter-sector participants

5.4 Economic Push and Pull Factors

Descriptive analysis confirms that economic insecurity remains a powerful push factor among intra-sector fisherwomen. For instance, lack of savings and income instability scores highest among intra-sector workers ($M = 3.827$), followed by high interest rates from informal lenders ($M = 3.914$) and decline in fishery resources ($M = 3.889$). These reflect the unstable and exploitative financial environment still dominant in traditional fisheries.

In contrast, inter-sector fisherwomen report high scores on economic pull factors, notably access to diversified income ($M = 4.032$) and greater financial autonomy ($M = 3.954$). These incentives strongly attract fisherwomen into new occupations that promise better income predictability and economic independence.

Economic Factor	Group	Mean	SD	t	df	p-value
Poverty Due to Unemployment	Intra	3.549	1.121	-0.668	308	.505
	Inter	3.644	1.356			
Decline in Fishery Resources	Intra	3.889	0.804	1.611	308	0.108
	Inter	3.698	1.212			
High Interest from Informal Lenders	Intra	3.914	0.573	1.691	308	0.092
	Inter	3.745	1.146			
Lack of Savings & Income Instability	Intra	3.827	1.078	9.074	308	0.000*
	Inter	2.671	1.171			
Denial of Institutional Credit	Intra	3.340	0.893	-3.921	308	0.000*
	Inter	3.725	0.884			
Access to Diversified Income Sources	Intra	2.859	1.33	-6.364	308	0.000*
	Inter	4.032	1.111			
Financial Autonomy & Control Over Earnings	Intra	2.845	1.226	-5.788	308	0.000*
	Inter	3.954	1.103			
Access to Government/NGO Economic Schemes	Intra	3.040	1.247	-4.116	308	0.000*
	Inter	3.891	1.020			

Source: Primary Data

Economic push factor tests show significant differences for income instability and lack of savings ($t = 9.074$, $df = 309$, $p = 0.000^*$), suggesting severe economic stress among intra-sector workers. Denial of institutional credit is unexpectedly higher for inter-sector workers ($t = -3.921$, $df \approx 203$, $p = 0.000^*$), possibly due to difficulties accessing financial aid during transition. Other economic push variables—unemployment-related poverty ($t = -0.668$, $df = 309$, $p = 0.505$), resource decline ($t = 1.611$, $df = 309$, $p = 0.108$), and informal loan burdens ($t = 1.691$, $df = 309$, $p = 0.092$)—do not show statistically significant differences. Among pull factors, access to diversified income ($t = -6.364$, $df \approx 206$, $p = 0.000^*$), financial autonomy ($t = -5.788$, $df \approx 201$, $p = 0.000^*$), and support from government or NGO schemes ($t = -4.116$, $df \approx 207$, $p = 0.000^*$) are significantly higher for inter-sector workers.

Conclusion

The t-test analysis across personal, social, economic, and institutional domains reveals distinct patterns of occupational mobility among fisherwomen. Intra-sector workers face significantly higher personal and institutional push pressures, such as health hazards, long working hours, job insecurity, and lack of benefits—factors that push them to consider alternative livelihoods. Meanwhile, inter-sector workers are predominantly influenced by strong pull factors including

better income options, supportive environments, and improved work conditions, particularly in the personal, social, and economic domains.

Social push factors appear uniformly distributed, suggesting that stigma or social restrictions affect both groups similarly. However, the significantly higher pull factor scores among inter-sector workers across all domains reflect enhanced opportunities and support systems that encourage occupational transition. These findings underscore the critical role of enabling structures—like family, government schemes, and stable employment—in facilitating sustainable livelihood shifts for fisherwomen.

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