

AN OVERVIEW OF THE GENDER DIFFERENCES : JAVANESE FISH TRADERS AND PROCESSORS

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ABSTRACT

The world of trading and processing fish continues to be differentiated along gender lines. While women present in the sector originate from a narrower and more specific social environment than their male counterparts, their educational level is also lower. Correspondingly, the size and the scale of their enterprises are smaller and their profits more limited. Yet, contrasts between men and women in this regard vary both across seasons and in function of the specific profile of the trading or the processing (drying, smoking, salting) activities considered. Conversely to what one might believe, women do not always suffer from the shortcomings attached to the low season.

KEYWORDS : gender, social origin, formal schooling, seasonal variations, turnover and income.

ABSTRAK

Sektor pemasaran dan pengolahan ikan terus menerus mengalami perubahan dalam hal perbandingan pria dan wanita yang terlibat. Wanita yang terlibat dalam sektor tersebut berasal dari lingkungan sosial yang lebih sempit dan lebih spesifik, bila dibandingkan dengan rekan prianya. Di samping itu tingkat pendidikan wanita juga lebih rendah dari pada tingkat pendidikan rekan prianya. Akibatnya, jumlah dan skala usaha wanitapun lebih kecil dan keuntungannya lebih terbatas. Perbedaan antara wanita dan pria dalam hal ini bervariasi, tergantung pada musim dan fungsi masing-masing dalam kegiatan pemasaran dan pengolahan ikan yang dilakukan (pengeringan, pengasapan, pengasinan). Ternyata pada saat bukan musim penangkapan, wanita tidak selalu merugi akibat tangkapan ikan yang rendah.

KATA KUNCI : jenis kelamin, asal usul sosial, pendidikan formal, variasi musiman, raman usaha dan pendapatan.

A commercial culture becomes full-fledged when it removes the spatial, temporal and functional constraints that weigh initially on the relevant economic transactions. Indeed, as such exchanges link partners that are increasingly remote from one another, they involve a growing number of go between. In addition, loans and credits facilitate the use of a broader time frame and the use of time as money. Finally, transactions are increasingly independent of the goods or services involved as well as of the specific status of the participants.

Participation in the most advanced forms of commercial culture is initially a male privilege. The rules that govern traditional patterns of division of labour and authority along sex lines in most human societies restrict the geographic mobility of women (Moscovici, 1968). The trips they are entitled to take usually cover a shorter physical distance are of a shorter duration and have to be exclusively undertaken for familial reasons.

The restrictions imposed on women in this regard have a macro social origin and are rooted in religious traditions which probably reflect the quasi universal dominance of men as well as the differential value of the tasks initially assigned to the two genders. In many societies, notably in Africa, those women who transgress the underlying taboos are often accused of witchery (LeVine, 1961)¹. But the differential socialisation patterns of young males and females helps also reinforce these restrictions at each inter-generation level.

As women are expected to bear and rear young children, they are prescribed to stay around the homes of their mothers and later on, of their husbands. Further, independently of these familial constraints, the discrimination exerted against women with regard to their access to the skills commanding occupational success discourages many of them from participating in the labour force in general, most particularly in those economic sectors that are traditional male enclaves as a result of the greater rewards they offer.

In the light of this array of remarks, the purpose of this paper is to compare the profile of male and female fish traders operating on the northern shoreline of Java. Even though female participation in this branch of activity is often unexpectedly high in view of its marginal and hence tradition-oriented character, one cannot infer that the two genders enjoy parallel modes of access to their current occupational roles. Indeed, the reproductive patterns at work in the recruitment of the two populations of traders differ. Women traders originate from narrower segment of the population and are more likely to enter the same sea related occupations as their parents. To the extent that their economic achievement is the exclusive result of familial rather than individual choices, their educational level is also lower than that of their male counterparts.

Yet, contrasts in the social and occupational trajectories of the two genders do not say anything about their respective achievements. While the social marginality of women may limit their success, it may also enable them to entertain the same aspirations as their male counterparts and impose the same demands on their customers or on their suppliers. We will show in this regard that the first hypothesis is more valid than the second one. Female traders have fewer suppliers, clients, or employees. Further, the sensitivity of their level of activity to seasonal variations differs from that which characterises their male counterparts. In view of this array of contrasts, the two populations enjoy distinct levels of income and the determinants of their respective earnings are not alike either.

These general trends being highlighted, we will in the conclusion outline the additional research questions that can be inferred from the analysis before assessing the long term significance of the findings, notably as far as policy issues are concerned.

¹ The major merit of LeVine is to show that whenever women are disproportionately more often suspected of witchcraft than men, the disproportionate incidence of charges of witchery levelled against the former cannot be only a by-product of the disparity between their actual independence and the legal or informal constraints to which they are subjected. Indeed, suspicions of witchery result also from the psychological consequences of the child rearing practices specific to independent women.

The data are collected from responses to a questionnaire administered at the three major *TPI* of Tegal, Pekalongan and Juwana between December 1994 and February 1995 to the traders registered at either one of the three auction places. Under such conditions, these responses represent either an exhaustive catalogue of the population under study, or as a minimal, a representative sample. The findings are extracted from cross tabulations and when relevant, from regression analysis.

THE SOCIAL ORIGIN OF MALE AND FEMALE JAVANESE TRADERS

Male traders are almost twice as numerous as their female counterparts (211 versus 177). Yet, the level of participation of women in the trade varies not only by auction place (they are most numerous in Pekalongan), but also across sub-sectors. Thus, women represent a little over one third of all traders, but only about 25 per cent of all salted and boiled processors, which probably results from the higher investments required by this form of processing².

Although the majority of traders live in their birthplace, which helps them develop appropriately particularistic network, men have been, as expected, more often geographically mobile than their female counterparts. No less than 19 per cent of men have a current place of residence which differs from their birthplace against only 9 per cent of the women engaged in the same activity. One may infer that the networks of male traders or processors cover a wider territory. Yet, the differential mobility of the two genders is also a function of the auction place (Tab. 1). Tegal attracts the same proportion of male (73 per cent) and female (82 per cent) local traders or processors. At Pekalongan, over three quarters of female owned enterprises are local against only 44 per cent of their male counterparts. In Juwana, the contrast is even more striking, the first percentage climbing to 86 per cent, the second one falling to 23 per cent. In short, the "local" orientations of male and female traders or processors vary with the overall alternative opportunities offered by the larger communities in which they operate.

In the same vein, the differential mobility of the two genders is also partly a function of the types of trade or of processing examined. The sub-sectors with the most egalitarian gender distributions are also those for which men and women are the most stable. At one end of the continuum, male processors of salted fish are both numerous and more mobile (28 per cent) than the women involved in the same activity (18 per cent of which are born elsewhere). At the opposite end, the male and female processors of smoked fish tend uniformly to work in their birth place (only 5 per cent of whom have changed residence at least once during their lives).

In addition, the familial circumstances of male and female traders are not alike. No less than 37 per cent of all women included in the sample originate from a family of fishermen as opposed to only 7 per cent of their male counterparts. Alternatively, men are twice as likely as women to have fathers engaged in various commercial activities, including those pertaining to fish (29 per cent against only 13 per cent). In other words, the two populations are socialised into their current occupational roles through distinct channels and by varying methods. To learn about fishes is not the same thing as to learn about trading. Finally, trading fish does probably not represent the same channels of social mobility for the two genders, since are twice as numerous as their female counterparts the male traders and processors who come from a farming family (36 versus 17 per cent). However, the corresponding contrasts vary with the special branch of activity under study. As an example, women who process salted fish (22%) are twice less likely to come from a family of fishermen than the whole set of female traders or processors, in contrast to their male counterparts with this particular background who are twice as numerous in this particular activity (16 per cent) as in the remaining other sectors.

Yet, to concentrate exclusively our attention on the nature of paternal occupation provides us only with a distorted view of the reproductive processes at work here. Indeed, female traders are more likely than their male counterparts to learn their trade from their mothers. No less than 23 per cent of the

² This reinforces the need to document further the empirical components of the distinctions established among distinct types of fish trading or processing.

former have mothers who have been doing or continue to do the same trading or processing activity as opposed to only 6 per cent of the men (Tab. 2). In short, the inter-generation transfer of sources of income probably continues to be segregated along sex lines.

Table 1 : Geographic origin of male and female traders and processors (in percentage)
Asal geografis pria dan wanita pedagang dan pengolah (dalam persen)

	Birth place	Male	Female	Total
Juwana	Batur	1.2	0.0	0.8
	Demak	15.1	0.0	10.7
	Jepara	25.5	0.0	18.2
	Juwana	10.5	31.3	16.5
	Kudus	2.3	2.9	2.5
	Madiun	2.3	0.0	1.7
	Pati	12.7	54.3	24.8
	Rembang	23.3	8.6	19.0
	Semarang	1.2	2.9	1.7
	Tayu	1.2	0.0	0.8
	Tuban	3.5	0.0	2.5
	Wedari-Jaksa	1.2	0.0	0.8
	N	86	35	121
Pekalongan	Batang	11.1	13.3	12.2
	Demak	4.8	0.0	2.4
	Karawang	1.6	0.0	0.8
	Kendal	12.7	0.0	6.5
	Lamongan	0.0	1.7	0.8
	Pekalongan	44.4	76.6	60.3
	Pemalang	22.2	6.7	14.6
	no answer	3.2	1.7	2.4
	N	63	60	123
Tegal	Bandung	0.0	4.6	1.2
	Batang	1.6	0.0	1.2
	Brebes	11.3	0.0	8.2
	Cirebon	3.2	0.0	2.4
	Demak	1.6	0.0	1.2
	Medan	1.6	0.0	1.2
	Pemalang	0.0	9.1	2.4
	Pekalongan	3.2	0.0	2.4
	Semarang	1.6	0.0	1.2
	Solo	1.6	0.0	1.2
	Tegal	72.7	81.7	75.0
	no answer	1.6	4.6	2.4
	N	62	22	84

Table 2 : Maternal occupation by type of trading or processing and by gender (%)
Pekerjaan orang tuanya (perempuan) menurut jenis perdagangan atau pengolahan dan menurut jenis kelamin (%)

	Trader (fish)	Processor (fish)	Other traders	Transport	Farmers	Other	No answer	Total
Men								
Trader fresh	5.3	1.1	7.5	2.1	22.3	23.4	38.3	94
Trader salted	3.9	0.0	7.7	0.0	23.1	30.8	34.6	26
Process. fresh	0.0	0.0	0.0	3.3	0.0	33.3	33.3	3
Process. salted	3.1	0.0	0.0	0.0	3.1	56.3	37.5	32
Process. boiled	10.5	0.0	2.6	0.0	15.8	31.6	39.5	38
Process. smoked	5.6	0.0	5.6	0.0	11.1	0.0	77.8	18
Total	5.7	0.5	5.2	1.4	17.1	28.9	41.2	211
Women								
Trader fresh	17.2	8.6	3.5	0.0		27.6	43.1	58
Trader salted	13.3	0.0	0.0	0.0		33.3	53.3	15
Process. fresh	0.0	0.0	0.0	0.0		50.0	50.0	2
Process. salted	9.1	9.1	9.1	0.0		9.1	63.6	11
Process. boiled	7.1	21.4	0.0	7.1		14.3	50.0	14
Process. smoked	17.7	5.9	5.9	0.0		0.0	70.6	17
Total	14.5	8.6	3.4	0.9		21.4	51.3	117

Finally, the men and women studied here have not the same educational background. Since trading fish often departs from the activity prevailing in the familial environment of the men included in the sample, men enjoy a level of formal schooling which is significantly higher than that of their female counterparts (Tab. 3). One third of male traders have attended a post primary institution as opposed to 18 per cent of the corresponding female population. Alternatively, no less than 56 per cent of the latter have not completed their primary education or have not even begun this particular cycle of studies as opposed to only 18 per cent of the former. Once more, however, differences between the two genders vary by sub-sectors. Less mobile than other segments of the population studied here, female processors of smoked fish are also significantly more likely to stand at the lower end of the educational continuum, whereas the female processors of salted fish have reached a higher level of formal schooling than the men engaged in the same speciality (33 versus 24 per cent).

To conclude this first part, the avenues providing access to the fish trading business are significantly narrower for women than for men. Women learn more often their trade from their family than from schools, which should reduce proportionately their chances to upgrade their skills and experience the same economic success as their male competitors. At the same time, distinct categories of traders and processors do not attract or retain the same kinds of men and women, probably because both of the varying amounts of capital required and their distinct time-tables³. In short, despite the limited size of the samples examined here, it looks as if the marginality experienced by women is not uniform across various professional environments. The question remains to ascertain whether variations in their relative marginality are associated with corresponding variations in the economic opportunities they enjoy.

³ One can only deplore retrospectively the lack of any question on the matrimonial status of male and female traders or processors. Truly enough, this absence is due to the fact that the data collected sought primarily to identify the structure of the networks used by traders. Yet, impressionistic observations suggest that women engaged in fish trading or processing are often divorced, separated or widowed. As such, they may have less stringent time schedules than their married counterparts but they have also additional needs and must tap distinct sources of capital.

Table 3 : Levels of schooling by type of trading or processing and by gender (%)
Tingkat pendidikan menurut perdagangan atau pengolahan dan menurut jenis kelamin (%)

	No schooling	Some primary	Primary completed	1st cycle	2nd cycle	University	Total
Men							
- Trading							
fresh	3.2	17.0	54.3	19.2	5.3	1.1	94
salted	0.0	7.7	19.2	57.7	15.4	0.0	26
- Processing							
fresh	33.3	33.3	0.0	0.0	33.3	0.0	3
salted	0.0	40.6	31.3	25	3.1	0.0	32
boiled	0.0	10.5	60.5	7.9	18.4	2.6	38
smoked	0.0	5.6	61.1	16.7	16.7	0.0	18
Total	2.0	17.5	47.4	22.3	10.0	1.0	211
Women							
- Trading							
fresh	3.5	43.1	34.5	13.8	5.2		58
salted	0.0	33.3	40.0	20.0	6.7		15
- Processing							
fresh	0.0	100.0	0.0	0.0	0.0		2
salted	9.1	54.6	9.1	18.9	9.1		11
boiled	21.4	42.9	21.4	14.3	0.0		14
smoked	23.5	70.6	0.0	5.9	0.0		17
Total	8.6	47.9	25.6	13.7	4.3		117

THE OCCUPATIONAL PROFILE OF MALE AND FEMALE TRADERS

Contrasts in the social trajectories of male and female traders should make a difference on their current occupational status. Yet, both men and women are about 41 years of age and the variance of the relevant distribution is the same for the two sub-populations.

However, the relative occupational stability one can infer from the age of our respondents is only partially confirmed by the examination of their occupational histories. On the whole, few traders or processors have been involved in other activities. But, as suggested by our general argument regarding the universalistic character of trading activities, men have performed a somewhat larger number of occupations than women (0.7 versus 0.53) and the very fact that the standard deviation of the corresponding distribution is more limited in the first than the second case (0.45 versus 0.50) suggests that the phenomenon tends to be general.

An inspection of the differential seniority of the two genders confirms that the alternative opportunities available to women are fewer. As an average, all female traders and processors have spent more time in the occupation (13.1 year versus 11.8), even though the standard deviation is greater in the first case (9.3 versus 7.3) (Tab. 4). Yet, this contrast is not uniform across the sub-sectors examined here, and to give an example, male traders or processors of salted fish have dug deeper roots in their environment than their female counterparts.

Table 4 : Occupational seniority by type of trading or processing and gender (number. of years)
Senioritas pekerjaan menurut perdagangan atau pengolahan dan jenis kelamin
(jumlah tahun)

		Men	Women
- Trading			
fresh fish	Mean	12.3	12.3
	Standard Deviation	8.0	8.8
	N	94	58
salted fish	Mean	10.5	9.6
	Standard Deviation	3.5	5.6
	N	26	15
- Processing			
chilled fish	Mean	8.7	19.0
	Standard Deviation	10.7	1.4
	N	3	2
salted fish	Mean	12.2	12.7
	Standard Deviation	7.8	6.7
	N	32	11
boiled fish	Mean	11.5	11.1
	Standard Deviation	6.1	10.6
	N	38	14
smoked fish	Mean	12.6	20.1
	Standard Deviation	8.7	11.2
	N	18	17
Overall Mean		11.9	13.1
Overall Standard Deviation		7.3	9.3
N		211	117

Trading fish seems to absorb most of the working time available to respondents, as the overwhelming majority of them do not indicate any secondary activity. Yet, as expected, access to the labour market continues to be highly differentiated along sex lines, and the male traders who do have a secondary job are more widely scattered among a greater number of sectors than their female counterparts. The former are found in 8 occupations as contrasted with 4 in the case of the latter. Not only this, but 43 per cent of the male traders with a secondary activity are engaged in sea related jobs (such as aquaculture and fishing) against only 12 per cent of their female counterparts. In other words, the general rules underlying division of labour along gender lines operate also in this particular universe.

In the trading sector itself, men are likely to specify more often than women the species of fish they are buying and selling. No less than 83 per cent of male traders do so against only 54 per cent of women⁴. Further, the information offered by men is more differentiated (they refer to 10 species, women to only 7). Among those who specify the species they deal with, *layang* is more a male than female choice (56 per cent of men trade *layang* against 46 per cent of women).

Finally, our expectations regarding the impact that the differential domestic liabilities of the two genders may have on their respective involvement around auction places are not validated. The overwhelming majority (95 per cent) of male and female traders or processors operate on a routine basis and work systematically throughout the year. Further, both adopt comparable strategies to counterbalance

⁴ This difference can be interpreted in two distinct ways. It may reflect the lower significance attached by interviewers to the activities of women, but it can also be regarded as a valid indicator of the undifferentiated nature of the operations undertaken by female traders and more specifically, of their propensity to be less regarding of the type of fish they buy and sell.

the impact of seasonal peaks and troughs in their respective markets. There are hardly any contrasts in the relative numbers of men and women who shut their activities any month during the year.

THE DISTINCT PROFILES OF MALE AND FEMALE OWNED BUSINESS

Yet, the networks used by male and female traders differ in size. On the whole, the first population relies on a significantly greater number of suppliers (Tab. 5).

Table 5 : Number of suppliers by type of trading or processing and gender
Jumlah pemasok menurut perdagangan atau pengolahan dan jenis kelamin

		High season (August to March)		Low season (April to July)	
		Men	Women	Men	Women
- Trading					
fresh fish	Mean	4.2	2.6	2.3	1.7
	Standard Deviation	5.9	2.8	2.1	1.5
	N	94	58	94	58
salted fish	Mean	5.2	2.9	4.4	2.7
	Standard Deviation	4.2	2.0	3.2	2.1
	N	26	15	26	15
- Processing					
chilled fish	Mean	1.7	2.0	0.7	1.0
	Standard Deviation	1.2	1.4	0.6	0.0
	N	3	2	3	2
salted fish	Mean	4.6	3.7	1.7	1.7
	Standard Deviation	5.0	5.5	1.3	2.1
	N	32	11	32	11
boiled fish	Mean	5.7	5.4	3.1	2.6
	Standard Deviation	7.2	8.1	2.5	3.1
	N	38	14	38	14
smoked fish	Mean	7.2	1.0	3.2	0.9
	Standard Deviation	9.7	0.0	3.1	0.2
	N	18	17	18	17
Overall Mean		4.9	2.8	2.7	1.8
Overall Standard Deviation		6.2	4.0	2.4	1.9
N		211	117	211	117

Processors of salted fish represent an exception to this general trend. Regardless of the season, women of this sub-sector use broader networks, while suppliers' networks are more sensitive to the peaks and troughs of the market in the case of men. The average number of suppliers for men varies between a maximum of 4.9 and a minimum of 2.7. The corresponding range for female traders and processors is narrower (the figures are 2.9 and 1.8). Not only this, but the logic of intra-gender competition is also season-specific. The supplying networks of men are more differentiated during the high season, those of female traders during the low season. The standard deviations of the distributions evolve between a maximum of 6.2 during the peak and a minimum of 2.4 during the low season as far as men are concerned, while they range between 4.0 and 1.9 for the corresponding period in the case of their female counterparts.

Thus, while the competition which opposes male traders to one another seems to be most evident whenever the market is in full swing, the differentiation of their female counterparts appears relatively speaking to be most visible during the periods of scarcity, even though the logic at work for the two populations vary across sub-sectors.

At the opposite end of the commercial process, the networks of buyers respond to distinct dynamic forces. On the whole, men have a larger number of buyers. Yet, contrasts between the two genders tend to vary in function of the peaks and trough of the market and are uniformly minimal for the low season (3.6 for men against 3.3 for women). Further, during the same low season, the differentiation of female traders or processors in this regard tend to be proportionately greater than that of men (the standard deviations of the relevant distribution are 3.8 and 3.1 respectively). Finally, as we could also expect, gender differences differ also across sub-sectors. To give an illustration, the average number of buyers served by male processors of salted fish drops sharply from 4.0 to 1.9 between the high and the low season. In contrast, the relevant figure for their female counterparts ranges less dramatically between a maximal of 3.8 and a minimal of 2.8.

Last, the size of the businesses themselves, as measured by the number of employees, is usually larger for the population of male traders and processors, especially in the processing sector. This number varies between a maximal of 16.6 and a minimal of 14.5 in the case of men, while the corresponding figures for women drop from 12.0 to 10.4. Not only this, but while a situation of scarcity tends to be associated with a proportional accentuation of the contrast between the most and least successful male operators, the reverse is true as far as the female population is concerned. The standard deviation of the pertinent distribution drops minimally from 23.9 to 22.8 for men but more significantly from 22.1 to 15.7 for women. Further, once more, the effects of seasonal variations differ across sectors. Even though the female processors of salted fish use systematically a larger number of wage earners than their male colleagues, gender differences in this regard are sharper during the high than the low season.

It remains necessarily to ascertain whether the three indicators of size used here are interrelated. In contrast to variations in the sizes of suppliers' and buyers' networks which are independent of one another, the size of the businesses themselves, as measured by the average number of individuals employed by the respondents, is more closely related to the size of the suppliers' than of buyers' networks. Variation in suppliers' networks account for 15 per cent of the variance of the distribution of the number of employees of male traders and processors, and for 20 per cent of the parallel distribution in the case of their female counterparts⁵.

Yet, differences in the size of male and female owned businesses are only partially associated with corresponding contrasts in their operating styles. To be sure, independently of gender, most of the transactions between our respondents and their suppliers or their clients are paid in cash, which confirms the characteristic at work in this entire branch of activity (Tab. 6).

But while we expected that contrasts in the social status or in the relative position that men and women occupy in the market would be associated with parallel differences in the way they treat their clients or are treated by their suppliers, the smaller scale of the activities owned by women does not oblige all of them to rely more systematically on cash. In effect, the use of cash depends simultaneously on the gender and the sub-sectors of the individuals considered. The proportion of male traders of fresh fish relying on cash is significantly greater than among their counterparts specialising in the trade of salted fish (95 per cent against 35 per cent). In contrast the corresponding figures for women are a little less than three quarters for both activities.

⁵ It would remain important to ascertain whether differences in the size of the networks used by the two populations are associated with parallel contrasts in their geographic structures. Whereas the general line of our argument would lead us to assume that the trading and processing activities of women are more local in nature, the data available do not enable us to test this specific hypothesis.

Table 6 : Forms of transaction between traders or processors, their suppliers and clients by gender (in percentage)

Bentuk-bentuk transaksi antara pedagang atau pengolah, pemasok dan pelanggan mereka menurut jenis kelamin (dalam persen)

	Credit	Cash	Other and no answer	Total
• Between men and clients				
- Trading				
fresh	7.5	92.6	0	100
salted	65.4	34.6	0	100
- Processing				
fresh	0	100.0	0	100
salted	0	90.6	9.4	100
boiled	26.3	71.0	2.6	100
smoked	5.6	94.4	0	100
Total	16.6	81.5	1.9	100
N	35	171	4	211
• Between men and suppliers				
- Trading				
fresh	5.3	94.7	0	100
salted	65.4	34.6	0	100
- Processing				
fresh	0	100.0	0	100
salted	3.1	93.8	3.1	100
boiled	23.7	76.3	0	100
smoked	0	100.0	0	100
Total	15.2	84.4	0.5	100
N	32	178	1	211
• Between women and clients				
- Trading				
fresh	24.1	75.9	0	100
salted	26.7	73.3	0	100
- Processing				
fresh	0	100.0	0	100
salted	9.1	81.8	9.1	100
boiled	0	100.0	0	100
smoked	0	100.0	0	100
Total	16.2	82.9	0.9	100
N	19	97	1	117
• Between women and suppliers				
- Trading				
fresh	24.1	74.1	1.7	100
salted	26.7	73.3	0	100
- Processing				
fresh	0	100.0	0	100
salted	9.1	90.9	0	100
boiled	0	100.0	0	100
smoked	0	100.0	0	100
Total	16.2	82.9	0.9	100
N	19	97	1	117

Comparing the income earned by male and female traders or processors requires the introduction of appropriate controls and notably the importance of the quantity of fish sold or processed during the "high" and "low" periods of activity (Tab. 7)

Table 7 : Daily net income of traders or processor by gender, season and volume (rupiah)
Pendapatan bersih harian dari pedagang atau pengolah menurut jenis kelamin, musim dan volume (rupiah)

Production (kg/day)		High season (August to March)		Low season (April to July)	
		Men	Women	Men	Women
<500	Mean	21,906	12,072	19,051	9,408
	Standard Deviation	23,041	11,637	23,816	9,810
	N	94	84	94	84
500 to 2000	Mean	33,143	22,230	16,746	13,872
	Standard Deviation	28,051	12,389	12,964	9,314
	N	68	25	68	25
>2000	Mean	208,664	365,000	100,101	104,750
	Standard Deviation	187,323	672,027	104,312	130,910
	N	47	8	47	8
Total	Mean	67,560	38,374	36,527	16,881
	Standard Deviation	118,687	87,873	62,396	41,180
	N	209	117	209	117

Regardless of the season, men earn more money than women. Yet, intra-gender contrasts as measured by standard deviations are greater in the case of female than male traders or processors during the high season. Most significant, while women fare poorly at the bottom of the hierarchy, they are more successful than the men when they exchange or process more than 2,000 kgs of fish per day.

It remains necessary to ascertain whether the determinants of economic success are alike for the two populations studied here. First, the differential income between the two genders does not seem to result from their relative participation in the various sectors. As numerous as men to process smoked fish, women earn significantly less than their male counterparts. Conversely, the more limited participation of woman in processing salted fish does not prevent them from doing better than their male competitors. In effect, the sex ratio of the various forms of trading and processing present here is hardly correlated with the direction as well as the extent of the differential net income by gender.

Secondly, a multivariate analysis accounts roughly for the same amount of variance in the income distributions of the two genders. But while schooling improves the economic results of all traders and processors, its influence is significantly greater on women than on men (Tab. 8). As women attending school are few, they are more likely to benefit fully from the rewards attached to their academic experiences. In contrast, the benefits that the men derive from such experiences are modified by other factors. To originate from a family where the fathers are engaged in fish trading or processing enhances the earnings of male respondents. Alternatively, these earnings decline whenever the mothers of traders or processors are engaged in fish trading or processing. The effects of social reproduction are relative and follow gender generation lines. This relativity can be imputed to male dominance or to the marginal matrimonial status of the preceding generation of female traders and processors. The fact remains that social reproduction does not operate in the case of women. Independently of the social background, age (and seniority) exerts a positive influence on income, but, it is more marked in the case of men.

Table 8 : Multiple regressions of income by gender
Regresi ganda dari pendapatan menurut jenis kelamin

Men : Included observations : 208 after adjusting end points
 Convergence achieved after 4 iterations
 Heteroskedasticity-consistent standard errors and covariance

Variable	Coefficient	Std. Error	T-Statistic	Prob.
EDUC	0.1074	0.0299	3.5873	0.0004
C	8.6832	0.4828	17.9853	0.0000
AGE	0.0203	0.0073	2.7887	0.0058
PERCOM*	0.5148	0.1643	3.1335	0.0020
PROFMER**	-0.5104	0.2450	-2.0832	0.0385
AR(1)	0.2978	0.0922	3.2305	0.0014
AR(2)	0.3161	0.0883	3.5808	0.0004
R-squared	0.3792	Mean dependent var.		10.1521
Adjusted R-squared	0.3607	S.D. dependent var		1.0922
S.E. of regression	0.8733	Akaike info criterion		-0.2378
Sum squared resid	153.3009	Schwartz criterion		-0.1255
Log likelihood	-263.4051	F-statistic		20.4633
Durbin-Watson stat	1.5747	Prob (F-statistic)		0.0000

* PERCOM is coded as a dichotomous variable, fathers traders or processors being coded as 1, others as 0.

** PROFMER is coded as a dichotomous variable, mothers traders or processors being coded as 1, others as 0.

Women : Included observations : 115 after adjusting end points
 Convergence achieved after 3 iterations
 Heteroskedasticity-consistent standard errors and covariance

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	7.7350	0.3968	19.4943	0.0000
EDUC	0.1998	0.0290	6.8882	0.0000
AGE	0.0124	0.0076	1.6151	0.1092
AR(1)	0.2098	0.0935	2.2427	0.0269
AR(2)	0.1237	0.0693	1.7847	0.0771
R-squared	0.5156	Mean dependent var.		9.2782
Adjusted R-squared	0.4980	S.D. dependent var		0.8986
S.E. of regression	0.6367	Akaike info criterion		-0.8604
Sum squared resid	44.5913	Schwartz criterion		-0.7411
Log likelihood	-108.7028	F-statistic		29.2734
Durbin-Watson stat	1.1967	Prob (F-statistic)		0.0000

NB. The AR (1) and (2) are introduced here as auto-regressive corrections. Even though auto-correlations may primarily after time series, they may also occur in the case of crosssection data (J. Johnston, 1991).

The results of this multivariate analysis suggest that the more precarious the participation of a particular population (in this case, women) in a specific activity, the more closely the success of its individual representatives reflects a limited number of universalistic and achievement related forces.

CONCLUSIONS

The analyses conducted here generate simultaneously methodological and theoretical lessons. In methodological terms, we have shown that in order to avoid falling prey to the fallacy of reification, one must satisfy two requirements. On the one hand, one must compare the determinants of the modes of access and success of the two genders, since one cannot be sure that the "bad lot" imposed on women does not characterise as well some segments of the male population. On the other hand, one must also compare the forms and the determinants of differentiation within each gender in order to ascertain the relative significance of the differential forms of solidarity enjoyed by the male and female segments of the particular social milieus in which we are interested.

In theoretical terms, we have established that female traders and processors are less cosmopolitan than their male competitors insofar as they are less mobile, less educated and depend more narrowly on the direct or indirect assistance of their familial groups. But while the ensuing handicaps should limit their economic success, the corresponding contrasts differ between trading per se and processing as well as across the various types of processing. Finally, this contrast is contingent on the quantity of fish sold or processed. The relativity of gender contrasts is not only a by-product of the distinct amounts and forms of investments required by each speciality. Indeed, it also results from the differential sensitivity of male and female traders to the seasonal variations of the market. This is also undoubtedly related to the specific way in which the emerging culture attached to each type of trading and each type of processing interacts with the general Javanese culture and with the catalogue of prescriptions and proscriptions the latter generates regarding the role of women both at home and in the society at large. Indeed, such an interaction introduces a marked individualisation of survival strategies.

Clearly, the strong dynamics operating in the entire sector of Javanese fisheries is likely to modify the extent and the form of the competition opposing the two genders in the world of trade and processing activities. With the growing stratification processes at work among fishermen, familial relations should become more diversified. The accentuated gap between skippers and unskilled deck hands should be paralleled by sharper contrasts in the number and the nature of the occupational opportunities enjoyed by their daughters, their sisters, or their wives. These contrasts should appear, early on, during the childhood of young women since the accentuated patterns of male stratification should be accompanied by a corresponding differentiation of familial strategies toward the formal schooling of male and female children. They should persist, later on, since changes in the structures of fisheries should be associated with changes in the status assigned to women within and without domestic groups. Thus, further research should be devoted by an evaluation of the dynamics governing the evolution of trading and processing on the one hand, and of the status assigned to women, on the other. The issue is to ascertain the extent to which this particular branch will become "unisex", access to trading or processing and economic success within each one of the relevant sectors becoming more and more independent of gender. While this may be the case, it may also be that the current specialisation of the Javanese labour force by gender will become increasingly visible, men and women living in two separate worlds.

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