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Exploring Factors Affecting Job Satisfaction and Profession Loyalty of Fishermen in Bengkulu Province: Structural Equation Model

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ABSTRACT
Bengkulu fishermen face intense challenges mainly caused by climate change, which influences their livelihood. On the other side, there are government policies and social capital that could help and protect them in pursuing a better life. This study aimed to analyze fishermen's job satisfaction and loyalty and identify factors affecting them in Bengkulu Province. A Structural Equation Model (SEM) was proposed, which shows the relationship between the perception of climate change, government policy, and social capital on job satisfaction and loyalty of fishermen. Research samples consisted of 350 fishermen who live in seven central fishing locations along the coast of Bengkulu Province. The result showed that even though almost 54.1 percent of fishermen are satisfied with their jobs, only 16.2 percent are loyal to their profession. Furthermore, about 75.4 percent of fishermen would not advise their sons to continue their jobs. The research result model shows that job satisfaction is directly influenced by the perception of climate change and social capital, whereas government policy is not. The model also indicates that fishermen's loyalty is directly influenced by their perception of climate change, government policy, and job satisfaction. Furthermore, the loyalty of fishermen to their profession is indirectly influenced by climate change and social capital. In encouraging fishermen's job satisfaction and loyalty, some government policies could be implemented, including increasing fishermen's understanding of climate change by the existing program, fishermen empowerment by developing institutions, social norms, and formal regulations, and providing low credit funding for a bigger fishing boat, a more robust machine, and new fishing gear.

INTRODUCTION

With a 525km coastline, Bengkulu Province has excellent abundance of fisheries resources. The fisheries production of this area reached 84,690 tons in 2022, but it is still extremely distant from its sustainable production of 860,800 tons. Moreover, there are 12,050 fisheries households involved and depend on fishing activities **(Ministry of Marine & Fisheries, 2024)**. The abundance of fisheries' resources has not made fishermen's society more prosperous **(BPS, 2024)**. **Patriana and Satria (2013)** stated that most fishermen used small fishing vessels, less than five Gross Tonnage (GT), hence their fishing operation lies in the narrow fishing ground. In addition, they also faced

extreme challenges related to global warming. In 2023, 4% of 5400 disaster events in Indonesia are related to global environmental and climate changes, such as floods, drought, extreme weather, tidal waves, and abrasion **(BNPB, 2024)**. The climate change lead to increase sea levels and destruct marine ecosystems both physically and biologically such as floods, changing currents, mangrove damage, seawater intrusion, decreased shoreline.

Fortunately, virtually all rural societies in Indonesia, mainly fishermen, live in a rural area; they have social relationship that becomes life-sustainable, especially when facing climate-related disasters. This social capital enhances motivation for society to survive and to continue their business in fishing **(Bourdieu, 1986; Coleman, 1988; World Bank, 1998; Cvetanovic *et al*., 2015)**. Apart from that, according to **Haddad and Mallucio (2000)**, the capital is able to play a function in individuals gaining access to society, such as access to capital and information. Meanwhile, **Bandiera and Rasul (2006)** pointed out that individual decision-making such as technology adoption positively correlates with social group behavior. Furthermore, **Islam *et al.* (2023)** pointed out that social capital is essential in increasing fishermen's household income.

Regarding the fisheries sector development, the Indonesian government usually develops this sector through policies. The policies that improves fishermen welfare include: increasing export, investment incentive, job opportunity, fishing insurance, and reform fisheries regulation **(Fauzi & Anna, 2005)**. Meanwhile, **Monnereau and Pollnac (2012)** stated that the policies in fishing also include conflict solutions regulations, fisher chances for participation, counseling, and guidance, and the development of fishing ports facilities. However, in playing their role, fishermen in Bengkulu faced essential problems such as financial capital access, low technology, and climate change because of global warming. On the other hand, fishermen are encouraged to take on a much more critical role in economic development in the future. For this reason, studies on factors affecting fishermen's job satisfaction and professional loyalty have become urgent.

Satisfaction is an individual's response to evaluating previous expectations and actual reality **(Hasan, 2013)**. The concept of job satisfaction, according to anthropology, is trying to implicitly understand the compatibility aspect between the person and his work in a changing world **(Pollnac & Poggie, 1988)**. Variables related to job satisfaction are matters relating to fulfilling human needs. Meanwhile, in marketing term, loyalty is a desire to buy a product or service again in the next time **(Santana & Gil, 2018)**.

Research on fishermen's job satisfaction and professional loyalty is rarely conducted, including in Indonesia. Some studies related to the job satisfaction of fishermen were conducted by **Pollnac and Poggie (2006)** in south Alaska, **Monnereu and Pollnac (2012)** in the Caribbean, and **Sall (2012)** in Senegal. The majority of the research on job satisfaction and professional loyalty is conducted related to firms and organizations where researchers focus on laborers' satisfaction with their jobs and their loyalty to business organizations where laborers work **(Maric *et al.*, 2011; Aparna *et al*., 2018;**

Frempong *et al.*, 2018; Minarova, 2018; Sidiqui & Dron, 2019; Andi *et al.*, 2021; Regin *et al.*, 2023). Meanwhile, in marketing, researchers are interested in customer satisfaction and loyalty to the product and its attributes **(Al-Maamari & Abdulrab, 2017; Javed, 2017; Leninkumar, 2017)**.

Various researches on the social capital of fishermen related to natural disasters, social conflict, and government programs have been conducted. Among others include research by **Bodin and Crona (2008)** in Sweden, **Turner *et al.* (2014)** in the Northumberland (UK), **Gustavsson *et al.* (2017)** di Wales, **Islam (2021)** in Bangladesh, and **Islam *et al.* (2023)** in Malaysia. Social capital is essential in achieving various aspects of development, including economic, environmental, and social development, as well as community development. One of the arguments is that with social capital, individuals and community groups can work together and coordinate to achieve common goals, as explained by **Putnam (1995)**, **Portes (2014)** and **Narayan and Cassidy (2020**). This is even more important because, from the case in West Sumatra, investment in the form of physical capital, such as the procurement of fishing boats, is not practical in improving the welfare of fishermen if it ignores the social capital aspects that exist in the fisheries community **(Stanford *et al.*, 2014)**. Meanwhile, **Fey *et al.* (2006)** explained that the success of community development cannot be separated from the existence of social capital. The question is whether social capital can affect the job satisfaction and loyalty of fishermen, as well as the influence of social capital on disaster mitigation, as discussed earlier. For this reason, research to elaborate on the influence of social capital on fishermen's satisfaction and loyalty to their profession must be examined. This research would significantly contribute to knowledge development, especially about fishermen's job satisfaction and loyalty.

MATERIALS AND METHODS

Materials

This research is based on a field survey, so the materials used are research instruments such as a questioner, ballpoint pen, pencil, note board, and computer unit.

Research Location and Sample

The research location was purposely selected at the fishing centers in five districts in the Bengkulu Province. These districts involve the District of Kaur, South Bengkulu, Central Bengkulu, Mukomuko, and Bengkulu City. Seven villages were selected purposively from these selected districts based on the number of fishermen in that area. These selected villages are Bintuhan Beach, Sekunyit, Manna Pasar Bawah, Pulau Bai, Malabro, Pondok Kelapa, and Pasar Bantal. Each fishing center chose 50 respondents randomly, so the overall respondents are 350 fishermen (Fig. 1)

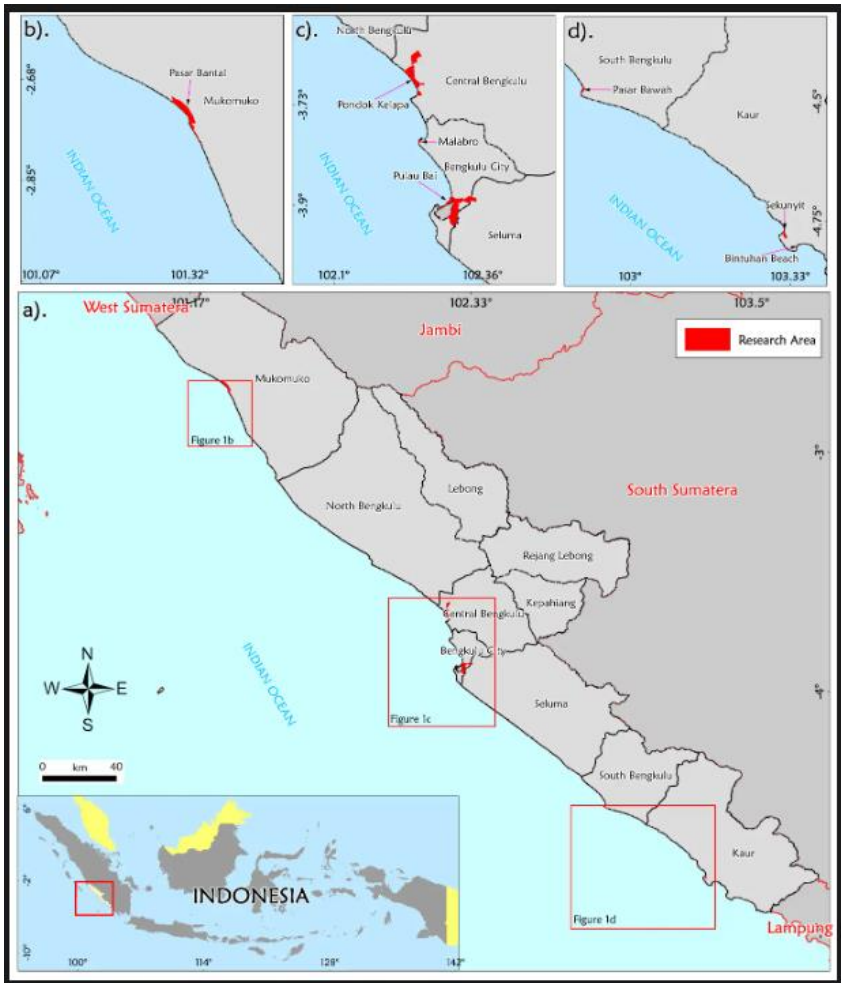

Fig. 1. Research location

Model specification and data analysis

This research was arranged based on a theoretical framework which adopted theory satisfaction and loyalty of customers or workers in the organization **(Maric *et al.*, 2011; Turkyilmaz *et al.*, 2011; Al-Maamari & Abdulrab, 2017; Javed, 2017; Leninkumar, 2017; Aparna *et al.*, 2018; Frempong *et al.*, 2018; Minarova, 2018; Sidiqui & Drone, 2019; Andi *et al.*, 2021; Regin *et al.*, 2023)**. This theory states that the success of a company organization requires employee job satisfaction, where in its development, employee loyalty also plays a crucial role in determining the success of the company's performance. In measuring job satisfaction, this research adopts the methods of **Kotler and Amstrong (2006)**, **Monnereau and Pollnac (2012) and Sall (2012)**, which measure job satisfaction involving six indicators. These indicators are focused on the fishermen's perception of their jobs. Meanwhile, professional loyalty closely follows **Rangkuti (1997)** and **Hasan (2013)** whose research involves three questions related to their willingness to stay in their jobs as fishermen. Furthermore, research by **Kalisch *et al.* (2010)**, **Khuong and Tien (2013)**, **Frempong *et al.* (2018**) and **Febriana *et al.***

(2024) concluded that job satisfaction has a significant effect on job loyalty.

This research also follows the findings of **Lange (2015)** that social culture, including social capital, plays a vital role in job satisfaction in addition to other factors such as demographic characteristics and types of organization. On the other hand, **Flap *et al.* (2000)** found different results in their research. In terms of the effect of government policy, research by **Sariwulan *et al*. (2019)** found that government policy has an essential role in teachers' job satisfaction, even though another study found that government policy has a negative effect **(Umar *et al.*, 2022)**.

Based on the previous discussion, the hypothetical model in this research has been developed (Fig. 2). This model exhibits a complex relationship that shows direct and indirect effects. For this reason, the approach and analysis applied in this study are Structural Equation Models (SEM), as suggested by **Widarjono (2015)** and **Haryono (2017)**.

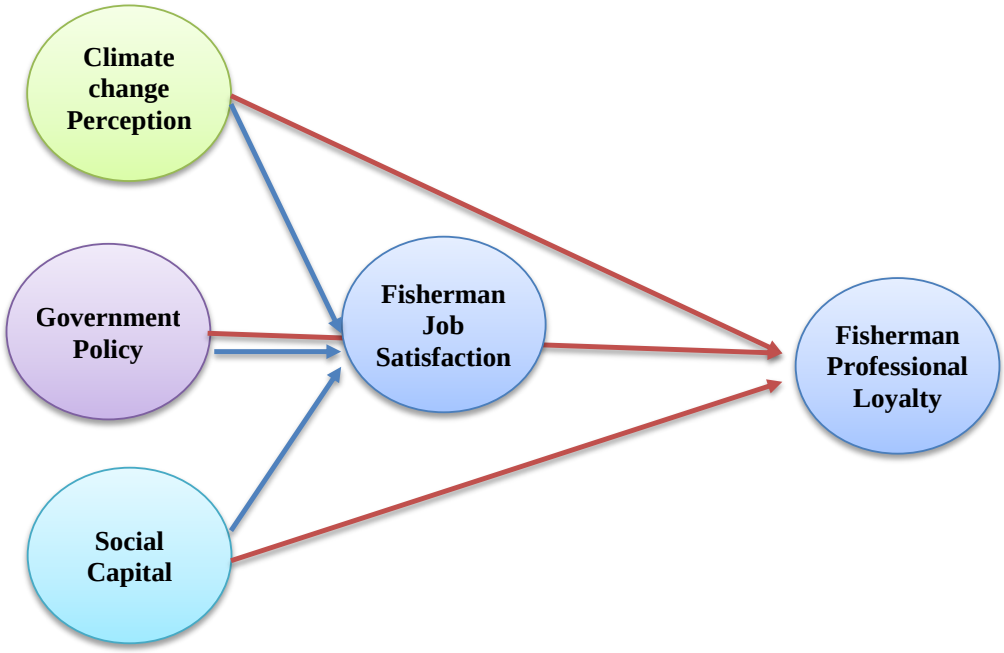

Fig. 2. Hypothetical model

Fig. 2. Research variables as five latent variables: three exogenous latent variables, namely perceptions of climate change, government policy, and social capital; one intervening latent variable, job satisfaction of fishermen; and one endogenous latent variable, fishermen's profession loyalty. Table (1) describes these variables. Fig. (3) shows a hypothetical model with indicators.

Table 1. Latent and manifest variables

No	Latent variables	Manifest variables
1	**Job satisfaction** [c]	1) The work of the fishermen can provide for proper family food ($X_{4.1}$). [a, b, c] 2) Working as a fisherman can meet the family's need for health ($X_{4.2}$).[b, c] 3) Fishermen's work can meet the needs of the child's school to high school level ($X_{4.3}$).[b] 4) Working as a fisherman, he takes pride in being the boss of his own business ($X_{4.4}$).[b, c] 5) Workers are fishermen, and the father loses time with family and other communities such as traditional parties ($X_{4.5}$). [c] 6) Work as a fisherman is a challenging job that you love ($X_{4.6}$) [c]
2	**Fishermen loyalty** [c]	1) Because of the current circumstances will you stop being a fisherman and look for another job? ($Y_{1.1}$). [c] 2) With the current situation, will you still be a fisherman but replace the fishing gear used? ($Y_{1.2}$). [c, h] 3) Will you advise your son to continue your job as a fisherman? ($Y_{1.3}$).[c, d, e]
3	**Climate change** [q]	1) In the last five years, sea waves have been higher than before ($X_{1.1}$).[f, i] 2) In the last five years, there has been a change in wind direction. ($X_{1.2}$). [f, g, i] 3) In the last five years are often extreme weather (X1.3).[f, g] 4) In the last five years, there has been a change in the fish season ($X_{1.4}$). [f, g] 5) In the last five years, fishing sites have changed (X1.5). [f] 6) In the last five years, the air temperature has been getting hotter ($X_{1.6}$). [i] 7) In the last five years, the sea has been getting turbidity and less salty ($X_{1.7}$). [i]
4	**Government policy** [p]	1) Government policies and programs on regulatory regulations and conflict solutions ($X_{2.1}$) [b,r] 2) Government policies and programs on training and extension assistance for fishermen ($X_{2.2}$) [b] 3) Government policies and programs on means (ports and

No	Latent variables	Manifest variables
		fish auctions) ($X_{2.3}$) [b]
		4) Government policies and programs on infrastructure (vessel assistance, fishing gear, and fishing insurance). ($X_{2.4}$) [b, j]
5	**Social capital** [k]	1) Trust ($X_{3.1}$) [l, n]
		2) Social Norm ($X_{3.2}$) [m, n]
		3) Mutual Reciprocity ($X_{3.3}$) [n, o, k]
		4) Social Network ($X_{3.4}$) [n, o, k]
		5) Participation in group activities ($X_{3.5}$) [m,k]

Notes: Latent and manifest variables are adapted from:

a) Kotler and Amstrong (2006)
b) Monnereau and Pollnac (2012)
c) Sall (2012)
d) Rangkuti (1997)
e) Hasan (2013)
f) Patriana and Satria (2013)
g) Weatherdon *et al.* (2016)
h) BAPPENAS (2011)
i) Team SOS (2011)
j) Zainal (2012)
k) Bourdieu (1986)
l) Coleman (1988)
m) World Bank (1998)
n) Putnam (1995)
o) Cvetanovic *et al.* ((2015)
p) Dunn (2003)
q) Ajayi (2014)
r) Wijaya (2009)

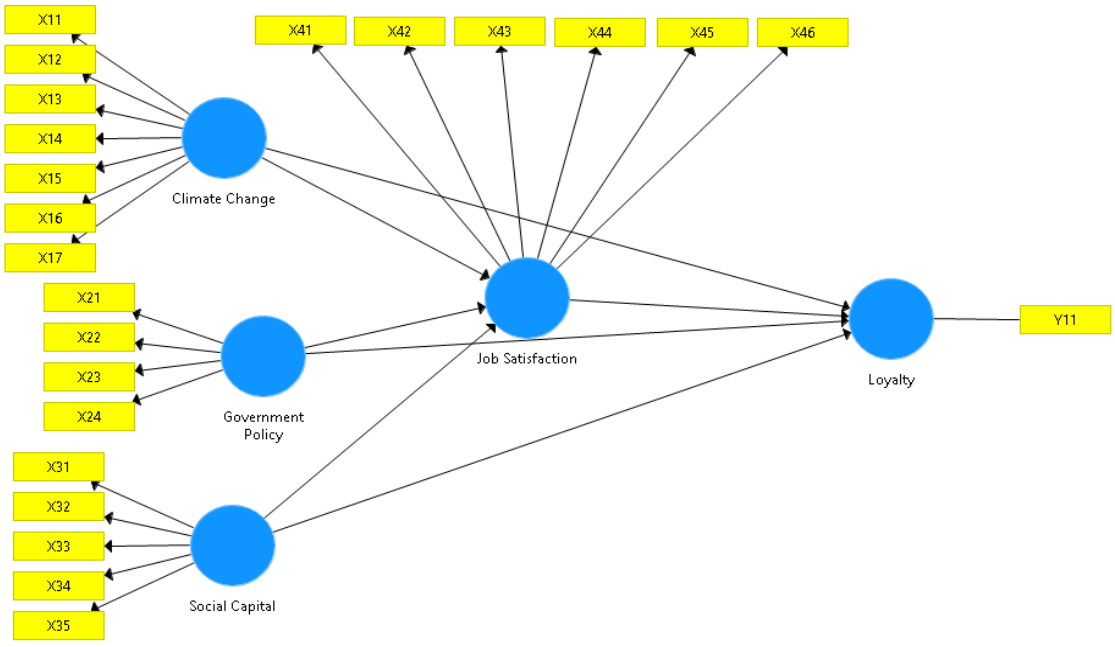

Fig. 3. Hypothetical model with indicators

Based on the above discussion, the hypothesis of this research is as follows:

H1: Perception of climate change influences job satisfaction directly
H2: Perception of climate change influences loyalty directly
H3: Government policy influences job satisfaction directly
H4: Government policy influences loyalty directly
H5: Social capital influences job satisfaction directly
H6: Social capital influences loyalty directly
H7: Job satisfaction influence Loyalty directly
H8: Climate change influence Loyalty if mediated by variable job satisfaction
H9: Government Policy influences Loyalty if mediated by variable job satisfaction
H10: Social capital if the mediated variable of job satisfaction

Evaluation of SEM model

1. Evaluation outer model

The outer model can be said to be feasible if the following requirements are met:

a) Indicator reliability if loading factor > 0.5 **(Widarjono, 2015)**
b) Discriminant validity if Heteritrait-Monotrait Ration of correlation (HTMT) <0.9 **(Usman, 2009)**
c) Internal consistency if composite reliability >0.7 **(Haryono, 2017)**
d) Convergent validity if average variance extracted (AVE) ≥ 0.5 or (Root Square AVE) > maximum correlation between construct **(Haryono, 2017)**.

2. Evaluation inner model

a) Coefficient determination (R^2) (Good, moderate, and weak)
b) Estimated path coefficient: should be significant (T Statistic ≥ 1, 96 or *P*-Value ≤0.05) **(Haryono, 2017)**.

RESULTS

Characteristics of respondents

Fishermen respondents in this study can be described by age, educational status, number of family members, and ownership status. The survey data show that the average age of fishermen respondents in this study is 41 years old; however, most of those fishermen are just secondary level or have no formal education. The average family is four members, but about 11 percent of respondents have more than five people. In addition, 45 percent of the respondents are the owners of the fishing units, and 55 percent are the fishing laborers (Table 2).

Table 2. Characteristic of respondents

Characteristic	Class	Percentage	Average
Age	18-30 year	13.2	
	31-43 year	42.5	41 years
	44-56 year	36.8	
	57-59 year	7.5	
Education	No School	4.3	Junior high school
	Primarily School	45.5	
	Junior High School	35.1	
	High School	15.1	
Family size	0-2 People	11.7	
	3-5 People	76.7	4 Peoples
	6-8 People	11.3	
	>8 People	0.3	
Status	Owner	45.	
	Worker	55.	

Fishermen's perceptions on climate change, government policy and social capital

Research shows that most of the respondents (62.1 %) have a negative perception of climate change, about 23.7% are neutral, and just 15.1% have a positive perception. This research found out about 23.5% of respondents said that government policies on the fishermen sector are positive, whereas 20.4% of them said it is negative, and others are neutral. Then this research also shows that social capital that most of the respondents (68.6%) said that their social capital has a positive impact on their fishing activities, just about 13.6% negative, and others neutral (Table 3)

Table 3. Fishermen's perceptions on fishing environment (%)

No	Fishing environment	Too bad	Bad	Neutral	Good	Very good
1.	Climate Change	21.3	40.9	23.7	9.7	5.4
2.	Government Policy	4.2	16.2	56.1	15.3	8.2
3.	Social Capital	5.8	7.8	17.8	48.8	19.8

Note: total respondents 350 fishermen

Fishermen's job satisfaction and loyalty

The fishermen of Bengkulu province are highly satisfied with their profession's performance. As many as 54.1% of Bengkulu's fishermen are satisfied with their job, about 25.8% are dissatisfied, and the rest are neutral (20.1%). On the other hand, this research also shows that 68% of respondents are not loyal to their profession, 15.4% are loyal, and the other 26.6% are neutral about their professional job (Table 4).

Table 4. Fishermen job satisfaction and loyalty (%)

No	Fishermen response	Very low	Low	Neutral	High	Very high
1.	Job Satisfaction	8.7	17.1	20.1	37.5	16.6
2.	Loyalty	40. 8	27.2	15.4	13.3	3.3

Note: Total respondents 350 fishermen

Evaluation result from the SEM model

Based on the results of data analysis using SEM, all the criteria were valid **(Usman, 2009; Widarjono, 2015; Haryono, 2017),** as seen in Table (5) and Fig. (4).

Table 5. Convergent validity and reliability test

Latent variable	Indicator	Loading factor	Composite reliability	Average variance extracted (AVE)
Climate Change (CC)	X.1.6	0.692	0,828	0,712
	X.1.7	0.972	0.828	0.712
Government Policy (GP)	X.2.1	0.847	0,688	0,532
	X.2.4	0.588	0.688	0,532
Social Capital (SC)	X.3.2	0.693	0,688	0,424
	X.3.3	0.609	0.688	0.424
	X.3.5	0.649	0.688	0.424
Job Satisfaction (JS)	X.4.1	0,698	0,849	0,531
	X.4.2	0,728	0.849	0.531
	X.4.3	0.643	0.849	0.531
	X.4.4	0.795	0.849	0.531
	X.4.6	0.770	0.849	0.53
Loyalty (L)	Y1.1	1.000	1.000	1.000

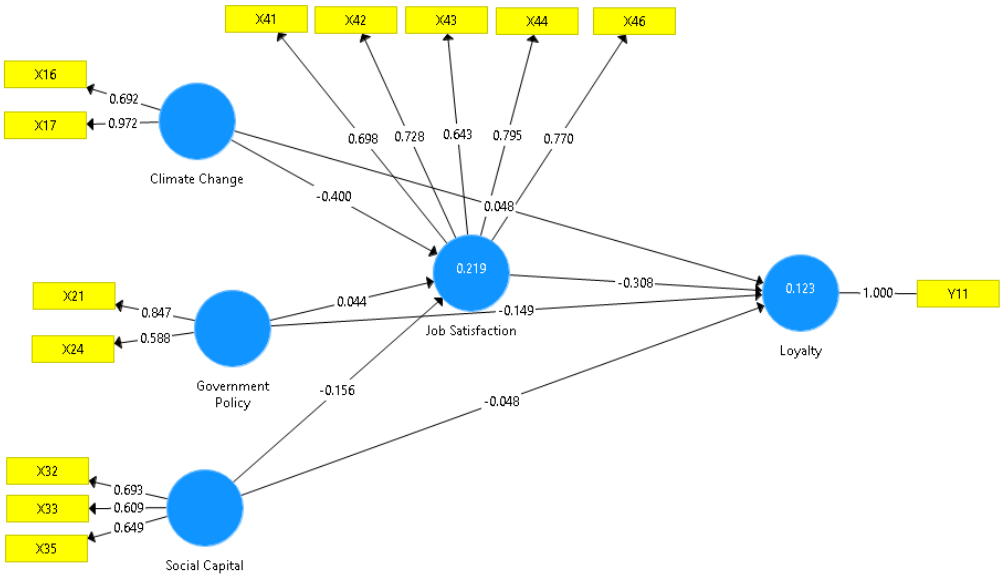

Fig. 4. Final results of analysis of the hypothetical model

The direct influence hypothesis test

This testing aims to prove the hypotheses of the influence of exogenous variables (Climate change, Government Policy and Social Capital) on job satisfaction and loyalty directly without intermediate. If the probability value (*P*-value) is <0.05, Hi: is accepted and vice versa **(Haryono, 2017)**. Table (6) exhibits the influence of variable exogenous (Climate Change, Government Policy, Social Capital) on job satisfaction directly.

Table 6. The hypothesis of direct influence

Latent variable	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-statistics (|O/STDEV|)	*P* Values
CC -> Job satisfaction	-0,400	-0,405	0,059	6,746	**0,000**
CC-> Loyalty	0,048	0,046	0,065	0,740	0,460
GP -> Job satisfaction	0,044	0,042	0,059	0,747	0,455
GP -> Loyalty	-0,149	-0,154	0,056	2,645	**0,008**
SC ->Job satisfaction	-0,156	-0.163	0,048	3,268	**0.001**
SC-> Loyalty	-0.048	--0.041	0,061	0,779	0,436
JS -> Loyalty	-0,308	-0.306	0.066	4,683	**0.000**

Hypothesis test results of direct influence:

(1) Perception of climate change (CC) influences nob satisfaction (JS) directly (**H1: accepted)**
(2) Perception of climate change does not influence loyalty directly (**H2 : rejected**)
(3) Government policy (GP) does not influence job satisfaction (JS) directly (**H3: rejected**)
(4) Government policy (GP) influences loyalty (JS) directly (**H4: accepted**)
(5) Social capital (SC) influences job satisfaction (JS) directly (**H5: accepted**)
(6) Social capital (SC) does not influence loyalty (L) directly (**H6: rejected**)
(7) Job satisfaction (JS) influences loyalty (L) directly (**H7: accepted**)

The indirect influence hypothesis test

The purpose of an indirect influence hypothesis test is to prove that exogenous latent variables (Climate change, government policy, social capital) influence endogenous latent variables (loyalty) through intermediary variables (Job satisfaction) (Table 7).

Table 7. Hypotheses of indirect influence

Latent variable	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-statistics (O/STDEV)	*P*-values
Climate change to loyalty	0,123	0,123	0,029	4,237	**0,000**
Government policy on loyalty	-0,013	-0,013	0,019	0,722	0,470
Social capital to loyalty	0,048	0,051	0,020	2,432	**0,015**

Hypothesis test results of indirect influence:

(1) Climate change (CC) influence loyalty if mediated by job satisfaction (JS) indirectly (**H8: accepted)**
(2) Government Policy (GP) does not influence loyalty (L) if mediated by job satisfaction (JS) indirectly (**H9: rejected)**
(3) Social capital (SC) influences loyalty (L) if mediated by job satisfaction (JS) indirectly (**H10: accepted**)

DISCUSSION

Exogenous latent variable

The latent variable climate change only has two valid indicators out of seven indicators tested, namely the temperature of the air is getting hotter (X1.6) and water turbidity ($X_{1.7}$). Those are in accordance with **Team SOS (2011)**. Meanwhile, the other indicators (sea wave, wind direction, extreme weather, fish season change, and fishing

ground change) are not valid. Thus the results are different from those of **Patriana and Satria (2013)** and **Weatherdon *et al.* (2016)**.

The study results also show that 61.3% of fishermen in Bengkulu said climate change is bad, especially since the temperature of the air is getting hotter and water turbidity has been getting higher in the last five years. This situation is the same as Caribbean fishermen, where 72, 6% said that the climate had changed significantly in the past couple of decades **(Seara *et al.*, 2020)**. Then this has affected them, and as a consequence, they have to adapt, such as looking for new fishing grounds **(Seara *et al.*, 2020)**. In addition, **Weatherdon *et al.* (2016)** argued that climate change will have a negative impact on small-scale fishermen, such as distribution changes presenting the problems, composition, and potential stock of fishery resources in British Columbia. In contrast, **Maltby *et al.* (2021)** elucidated that fishermen in the UK overall had low-risk perceptions of climate change.

The latent variable government policy just has two valid indicators out of four tested indicators: regulatory for conflict solution ($X_{2.1}$) and program on infrastructure ($X_{2.4}$). Indicator ($X_{2.1}$) is in line with the study of **Monnereau and Pollnac (2012)**. This is also supported by **Wijaya (2009)**, that to avoid fishermen conflict, the government has bordered fishing grounds between traditional fishing and modern ones in Bengkulu. However, fishermen are very dissatisfied with government policy, especially on conflict solutions between different gear types and ethnic groups in the Caribbean **(Monnereau & Pollnac, 2012)**. Meanwhile, indicator $X_{2.4}$ (vessel assistance, fishing gear, and fishing insurance) corresponds to **Monnereau and Pollnac (2012)**, **Zainal (2012)** and **Tenuit (2016)**. On the other hand, two other indicators, namely program on training and extension assistance for fishermen ($X_{2.2}$) and programs on means port and auctions ($X_{2.3}$), are not valid. This is different from indicator $X_{2.4}$ of **Monnereau and Pollnac (2012)**. However, in the policy context, this research found that most respondents (56.1%) responded neutrally to existing policies; 23.5% said they were good, and 20.4% said they were not good. This is in contrast with the data presented in the investigation of **Biswal *et al.* (2017)**, postulating that most of the fishermen's Bag Net programs in Gujarat are dissatisfied.

Of the five indicators tested on the latent variable of social capital, only three were found to be valid, namely social norms ($X_{3.2}$), social relationships ($X_{3.3}$), and participation ($X_{3.5}$). Meanwhile, three other indicators, namely trust, mutual reciprocity, and social network, were declared invalid. Norms and participation indicators are based on the **World Bank (1998)**, while relationship indicators derived from the opinion of **Cvetanovic *et al.* (2015)**. Meanwhile, other indicators namely research trust **(Bourdieu, 1986)**, mutual reciprocity **(Coleman, 1988)** and social network **(Putnam, 1995)**, contradict with the findings of this research.

Regarding social capital, most respondents, 68.6%, stated that it had a good impact on their fishing activities, only 13.6% of them stated that the condition of their social

capital was not bad, and the rest felt that it was normal. It can be said that the social capital of the fishing community in Bengkulu is still very strong. This finding differed from Bangladesh fishermen, where social cohesion has been diminished due to modernization and commercialization **(Islam, 2021)**. In addition, **Bodin and Crona (2008)** also explained that there is a lack of common initiatives to deal with the over-exploitation of fishermen in rural Sweden. Furthermore, **Anwar *et al*. (2015)** stated that social participation as one of the social capital in the Barang Lompo island community (Makasar City) has decreased recently.

Endogenous latent variable

The study found that the latent variable job satisfaction has five indicators that are declared valid, including fishing can provide proper family food ($X_{4.1}$), fishing can meet the family's need for health ($X_{4.2}$), fishing can meet the needs of the child's school to high school level ($X_{4.3}$), fishermen have their own pride for being a boss on their own business ($X_{4.4}$) and fishing is a challenging job ($X_{4.6}$). It is just one indicator that is not valid, namely lost time with family ($X_{4.5}$). Indicator $X_{4.1}$ coincides with **Kotler and Amstrong (2006)**, **Monnereau and Pollnac (2012**) and **Sall (2012**). Meanwhile, indicator $X_{4.2}$ is in line with **Monnereau and Pollnac (2012)** and **Sall (2012)**. Indicator $X_{4.3}$ is in line with **Monnereau and Pollnac (2012)**. Indicator $X_{4.4}$ is in line with **Monnereau and Pollnac (2012)** and **Sall (2012),** whereas indicator $X_{4.6}$ is in contrast with **Sall (2012)** because the fishing effort is a daily activity, thus there is no missed family party **(Patriana & Satria, 2013)**. Likewise, according to **Pollnac and Poggie (1988)** findings, New England fishermen with bigger vessels spend more time at sea. In terms of satisfaction with the profession as fishermen, more than half of the respondents (54.1%) said they were satisfied as fishermen, 28.8 said they were not confident, while the rest (25.8%) said they were normal or neutral.

Finally, the surprising research results show that even though the majority is satisfied with their profession as fishermen, only (16.2%) will be loyal fishermen. This means that if there is a chance they will stop being fishermen. It doesn't stop there, more than three-quarters (75.4%) did not make a will to their children to continue their profession as fishermen.

The result of this study is in stark contrast to **Pollnac *et al*. (2001)**, where 88% of fishermen in Maluku, Indonesia**,** 95% of fishermen in the Philippines, and 82% of Vietnamese fishermen stated that they would remain loyal fishermen. Moreover, most fishermen in the Caribbean still make a will to their children to continue their work as fishermen **(Monnereau & Pollnac, 2012)**. In addition, fishermen in Senegal and India are little interested in changing their profession **(Sall, 2012)**. On the other side, this result is in accordance with **Biswal *et al*. (2017)**, who said that 76% of fishermen in Gujarat, India, also would not advise their sons to follow their jobs as fishermen.

Relationships among latent variables of the model

The research results show that there are two latent variables that influence fishermen's job satisfaction, namely perception of the environment and social capital of the fishing community, while the governing policy variable does not. These results show that job satisfaction will decrease if the climate change is negative. Environmental changes will have a direct effect on fish catches. High levels of turbidity will inhibit the penetration of sunlight, thereby disrupting the growth of fish food **(Team SOS, 2011)**. Meanwhile, high water temperatures will disrupt the chemical and biological reactions in the waters, thereby reducing the productivity of plants and animals and leading to decreased fish catch. Furthermore, climate change also leads to disruption of the stability of fishing production. Hence, both the decrease in fish catch and instability fishing production lead to a decline in household income.

Sea fishing is a business with high risks. There are two main sources of risk: the risk when fishing is carried out and the second when marketing is carried out. Social capital has an important role in facing these two risks. Fishing communities with strong social capital will work together and will share resources and information regarding fishing grounds and weather. In this way, they work together to avoid the catcher's failure. For example, when extreme weather changes occur, they will help each other to ensure safe sailing. Likewise, if they encounter problems in marketing fish, they share price information, the quality of fish desired by the market, and government regulations for preserving fish resources. This way they will not catch fish of sizes prohibited by the government.

The most important information obtained from this research is about fishermen's loyalty to their profession. Data show that more than 75% of fishermen are disloyal. In fact, more than 80% of them do not make a will to continue their profession to their children. If this happens, it will really disrupt the community economy. First, the abundance of fisheries resources in the Indian Ocean will be wasted and will be exploited by foreign fishermen. Both of these resources' economic potential will erode the country's economy. Finally, government investment in the capture fisheries sector has been in vain. Apart from downstream businesses, fisheries, home industries, and restaurants, fish exporters will also be affected.

Fortunately, this study found that all the latent variables tested influenced fishermen's loyalty, both directly and indirectly. This means that if these latent variables, namely perception of weather changes, government policy, social capital, and fishermen's satisfaction, can be managed well, the opportunity for fishermen to remain permanently in their profession will be great.

Of the four latent variables that influence fishermen's loyalty, the government policy variable is the one that has the most driving force and is the most flexible. In theory, there are four programs that make it possible to increase fishermen's loyalty, namely regulatory regulation and conflict solutions, training and counseling assistance,

improvements to fish landing sites and auctions, and assistance with vessels, fishing equipment, and fishing insurance **(Monnereau & Pollnac, 2012; Zainal, 2012)**. In this research, only two government programs were recommended, including those related to regulations and conflict solutions and infrastructure assistance such as ships, fishing gear, and sea insurance.

Government regulations are beneficial in the short and long terms. In the short term, this regulation will prevent conflicts between traditional fishermen and modern fishermen which often occur in Bengkulu **(Fauzi & Anna, 2005; Monnereau & Pollnac, 2012)**. In the long term, government regulations will promote sustainable fishing by limiting the number of vessels and the size of fish caught and prohibiting the use of fishing gear that damages the environment. By doing this, abundant resource stocks are maintained, and fishermen's satisfaction and loyalty increase.

Government policies relating to assistance with vessels, fishing gear, and fishing insurance are closely related to the needs of fishermen in facing the changes occurring. So far, Bengkulu fishermen only operate in a narrow area and carry out daily fishing because they use small fishing vessels **(Patriana & Satria, 2013)**. With government assistance with larger fishing vessels, the fishing area will be expanded, fishing yields will increase, and larger vessels will also be more able to withstand large storms. Meanwhile, the help of fishing gear will cause variations in the fish caught. This is also related to the fishing season, where only certain fish can be caught at certain times. Thus, there is certainty that fishermen's income will lead to satisfaction and loyalty. Lastly, the existence of fishing insurance increases safety confidence in fishing; of course, this will increase fishermen's satisfaction and loyalty **(Monnereau & Pollnac, 2012)**.

The government also plays an important role in strengthening the social capital of fishing communities **(Abrahamsz, 2011)**. Existing norms will be more functional if they are institutionalized in writing and socialized through counseling, especially for the younger generation of prospective fishermen in the future. The formation of joint institutions the government promotes to support fishermen's lives, such as cooperatives or others, is a fundamental form of social capital. Moreover, counseling related to climate change will increase their understanding of the environmental changes and make them more prepared and confident. This will make fishermen remain satisfied as fishermen and loyal to their profession.

CONCLUSION

Based on the discussion that has been done, it can be concluded that even though almost 54.1 percent of fishermen are satisfied with their jobs, just 16.6% of them are loyal to their profession as fishermen. Additionally, about 75.4% of fishermen would not advise their sons to continue their jobs. The research model shows that job satisfaction is directly influenced by their perceptions of climate change and social capital, whereas government policy is not. The model also indicates that fishermen's loyalty is influenced

by their perception of climate change, government policy, and job satisfaction directly. In addition, loyalty is also indirectly influenced by climate change and social capital.

To increase fishermen's job satisfaction and professional loyalty in Bengkulu Province, some government policies could be implemented, including, increasing fishermen's understanding of climate change through existing programs, for example through fishery extension and climate field schools, fishermen empowerment by developing institutions, social norms, and formal regulations, and providing a low credit fund for bigger fishing boats, machines, and fishing gear.

This study had some limitations that provide opportunities for future research, especially since the theory model framework is still weak. In doing so, some construct variables, such as demographic, economic, and institutional, are not yet joined to the model.

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