Structural Equation Modelling of Wellbeing: A Case of Fishers in the Western Region of Ghana

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14th July 2016

Outline of Presentation

- Background of Study

- Methodology

- Results and Discussions

- Conclusions

Background of Study

- **Wellbeing:** concept common to economics, psychology, sociology, and other social sciences.

- Frequently tied to financial status, yet broader than economic or material wellbeing alone

- Smith and Clay (2010) note that job satisfaction is often more important than income to fishers

- Their project considers the concept of *wellbeing* in a three-dimensional approach:

  - Material dimension

  - Quality of Life dimension

  - Sustainability dimension.

Methodology
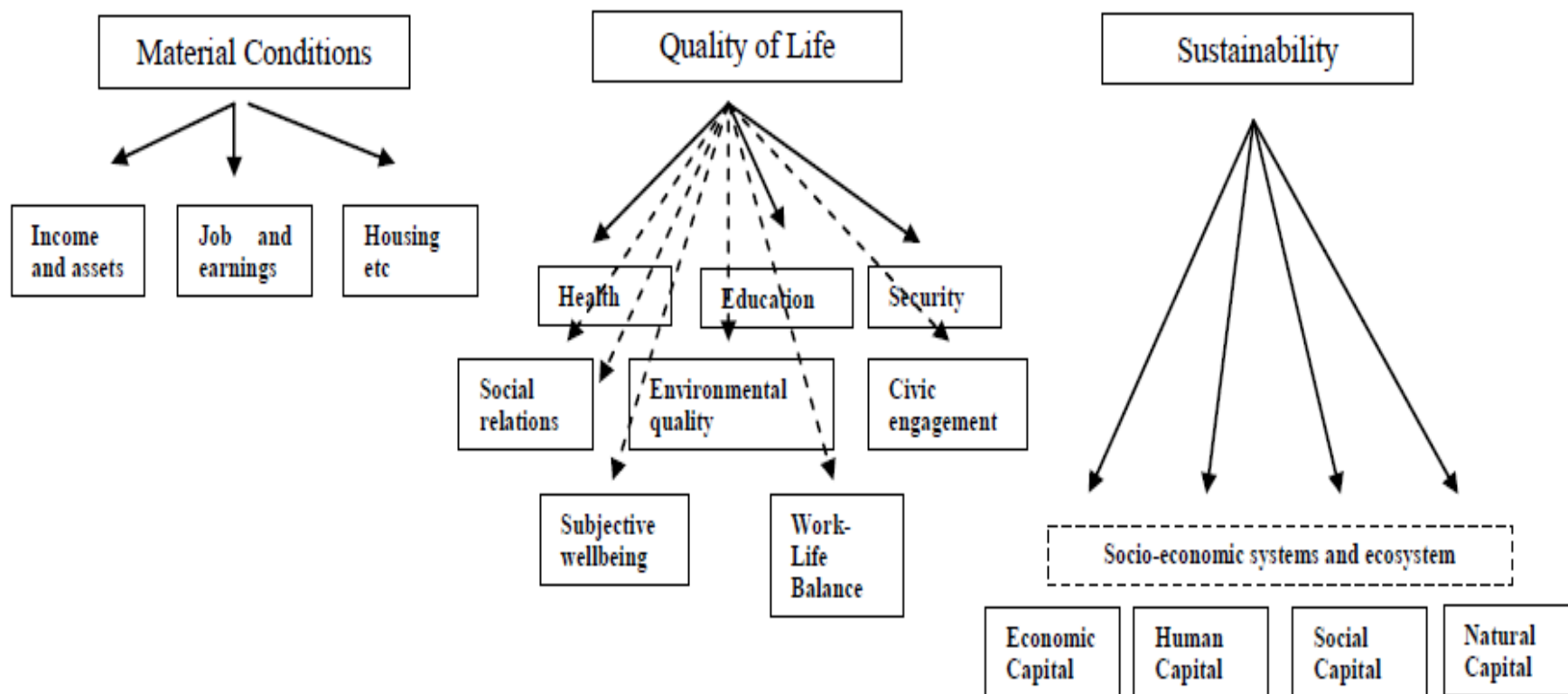
- **Descriptive analysis**, **PCA** and **SEM** were employed to assess the effect of indicators on wellbeing

The Ghana Case Study
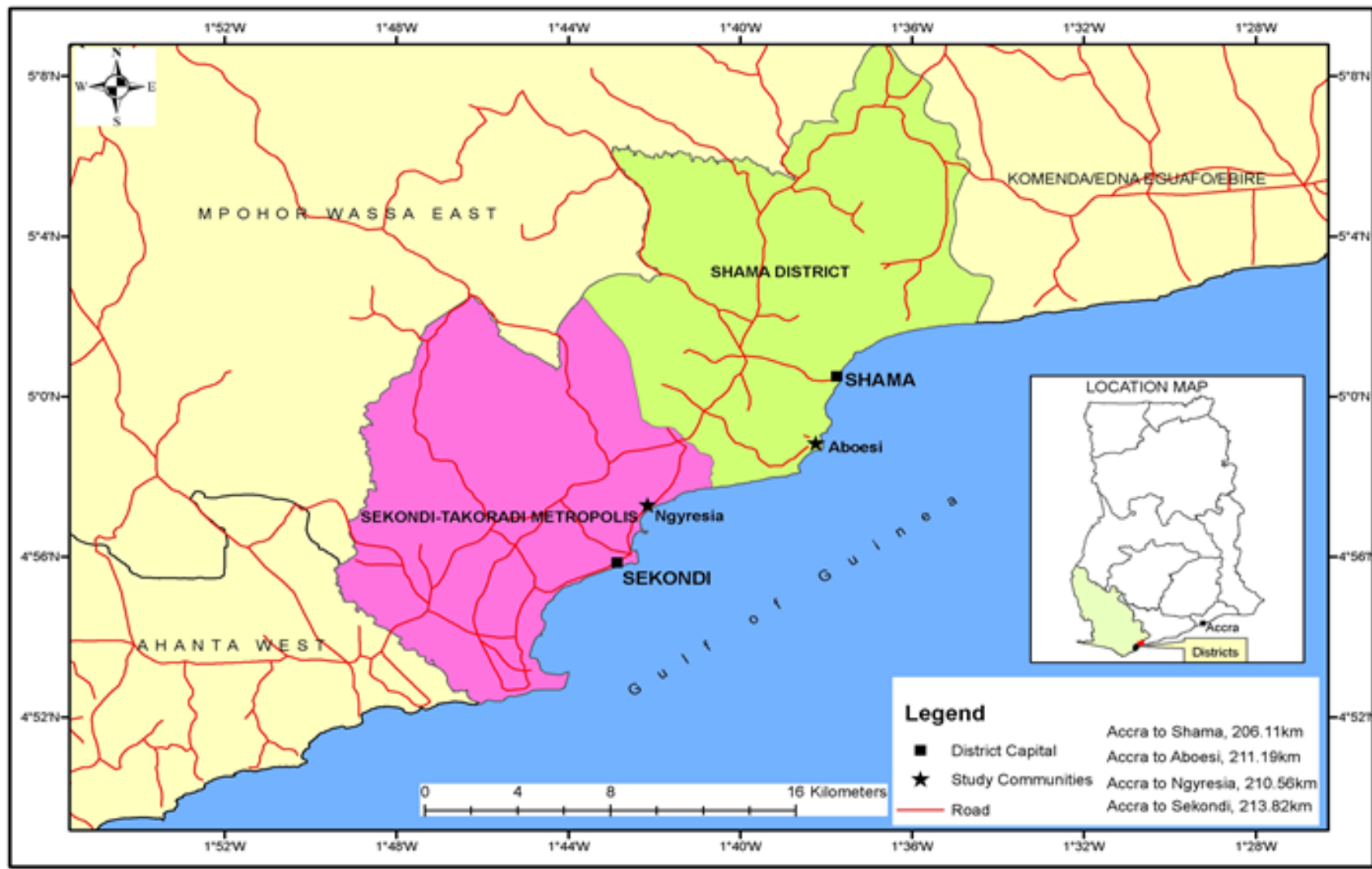
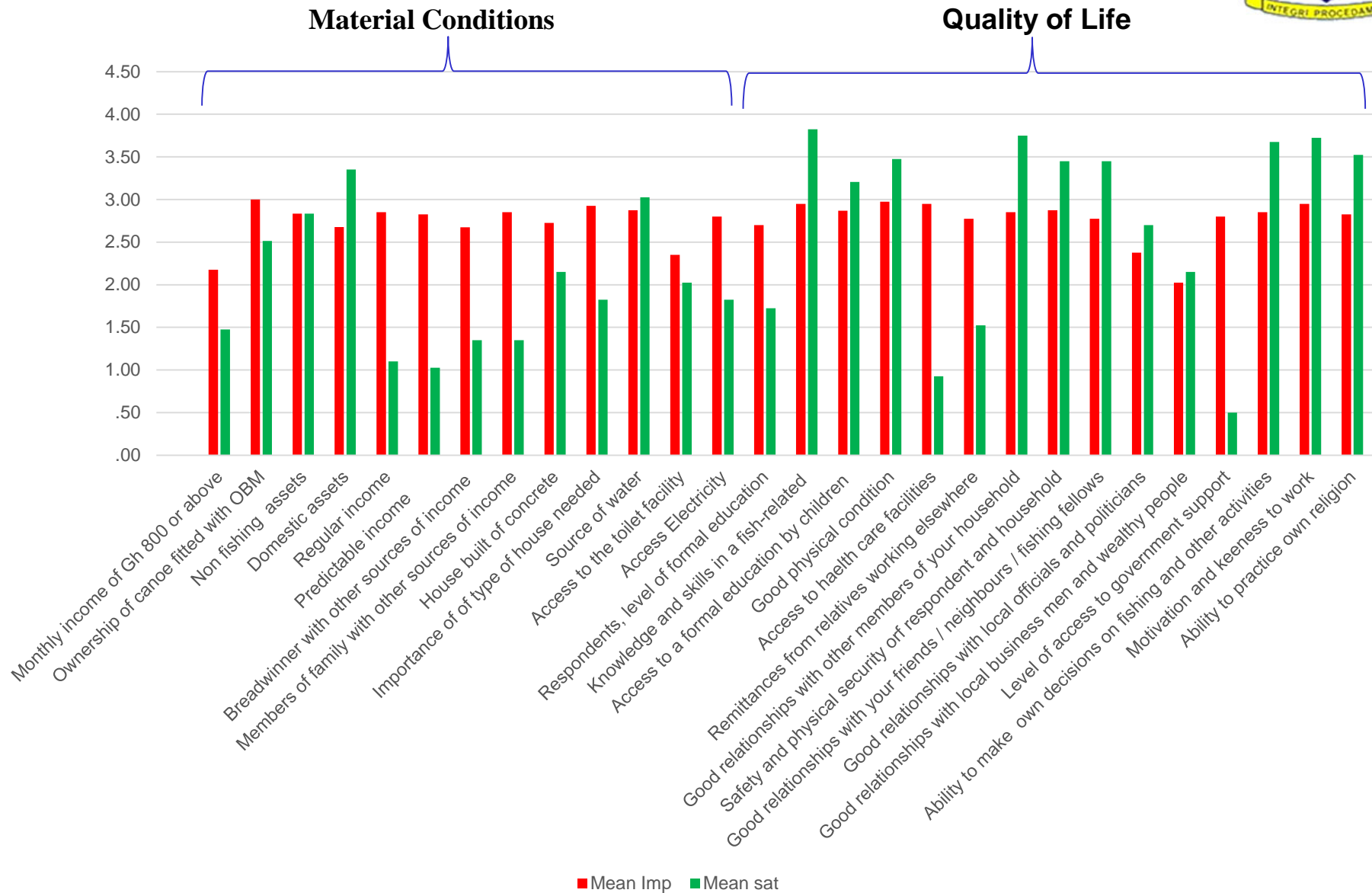# Activities of Smaller Canoes

Activities of Bigger Canoes

Activities of Processors

Ranking of Importance & Satisfaction

Indicators on Wellbeing (PCA)

Item	Principal Loadings on Major Constructs		
	Component 1	Component 2	Component 3
Material Conditions Dimension (MCD)			
Income and Assets (IA)	**0.91848**	0.31284	0.24191
Job and Earnings (JE)	**0.94321**	0.19291	0.27045
Housing and Related Infrastructure (HRI)	**0.95093**	0.28853	0.11176
Quality of Life Dimension (QLD)			
Environmental Conditions (EC)	0.35620	**0.67692**	0.25710
Health status and facilities (HSF)	0.35620	0.57917	0.10083
Empowerment and motivations (EM)	0.10461	**0.84982**	0.06052
Subjective wellbeing (SW)	0.19624	0.56341	0.16707
Empowerment and motivations in crisis (EMC)	0.16728	0.55413	0.36483
Social Connections in times of crisis (SCC)	0.16728	0.56334	0.45428
Personal and Household Vulnerability (PHV)	0.10719	**0.70807**	0.15240
Meaning and spirituality (MS)	0.42669	**0.77562**	0.46105
Social Connections (SC)	0.10838	0.54738	0.26993
Education and skills (ES)	0.25710	**0.71486**	0.08694
Sustainability Dimension (SD)			
Economic Capital (ECAP)	0.5033	0.3024	0.5737
Natural Capital (NCAP)	0.5415	0.2413	**0.7780**
Social Capital (SCAP)	0.3527	0.4732	**0.7777**
Human Capital (HCAP)	0.4950	0.1237	0.5270
Eigenvalue	**5.94425**	**3.96996**	**4.30274**
% of variance	**32.08**	**54.79**	**13.13**

Source: Field Survey, 2014

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Indicators on Wellbeing (SEM)

Constructs and Indicators	Coef.	t - Value	P - Values
Material Condition Dimension (MCD)			
Income and Asset (IA)	0.006317	0.59	0.557
Job and Earnings (JE)	0.0979281***	4.16	0.000
Housing and Related Infrastructure (HRI)	0.0470451***	3.51	0.000
Quality of Life Dimension (QLD)			
Environmental Conditions (EC)	0.0664131	0.81	0.416
Empowerment and motivations (EM)	-0.0065948	-0.15	0.882
Personal and Household Vulnerability (PHV)	-0.0143412	-0.40	0.690
Meaning and spirituality (MS)	0.1873676***	2.74	0.006
Education and skills (ES)	0.1208669***	3.41	0.001
Sustainability Dimension (SD)			
Natural Capital (NCAP)	0.1361829**	2.37	0.018
Social Capital (SCAP)	0.1488387**	2.08	0.038
Exogenous/Endogenous Path			
a. MCD $\rightarrow$ WELLBEING [H_1 is Supported]	5.995521***	6.85	0.000
a. QLD $\rightarrow$ WELLBEING [H_2 is Supported	2.882388***	3.58	0.000
a. SD $\rightarrow$ WELLBEING [H_3 is Supported]	4.855641***	2.69	0.007
a. MCD $\leftrightarrow$ QLD [H_4 is Not Supported]	2.857037	1.55	0.121
a. MCD $\leftrightarrow$ SD [H_5 is Supported]	2.851115***	5.75	0.000
a. QLD $\leftrightarrow$ SD [H_6 is Supported]	0.679252***	2.85	0.004

Conclusion

- Fishers have a strong bonding with the fisheries resources therefore getting communities out of fishing is not a route to reduce pressure on the resource

- Material condition, quality of life and sustainability aspects of wellbeing are very important to fishers

- *Measures should aim to diversify skills, make the fishing communities habitable with basic amenities so as to attract investment that offer alternative opportunities for fishers.*

Thank you for your attention