MODERNIZATION OF DEMAND ANALYSIS FOR POULTRY MEAT IN THE CONTEXT OF HPAI IN HANOI, NORTH - VIETNAM

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Introduction

This research is a fruit of interfaculty / research centers of HUA and Gembloux Agro-Bio Tech in order to mobilize the research skills on the sector of the poultry supply chains and demand analysis for poultry meat in Hanoi [1].

There is variety of animal products consumed in each family of both areas. In deed, pork meat, broiler chickens and freshwater fish were popularly used in all families; and broiler ducks are usually consumed in summer season. Furthermore, in the inner districts, there is a rise in the demand of red meats and aquatic products, particularly beef and seafood products. Home-made foods are still a major source of foods for all family members of most of families. However, families in urban areas tends to have breakfasts and lunches in restaurants.

Methodology

This research aims at documenting household food consumption from January to October 2010 by interviewing with and operating a record keeping system of food consumption in 250 households of various income levels living in two different areas of Hanoi, the inner and suburban districts.

Demand analysis model of poultry consumption was calculated by multivariate regression through logarithmic according to quantity consumed and price at household level by the software of Minitab 16 [2; 3].

Table 2 Food consumption per inhabitant per year (kg)

Food products	Rural (n=100)	Urban (n=155)	All (n=255)
Pork	22.64	21.75	22.10
Beef	2.96	5.63	4.58
Poultry meat	14.29	14.63	14.50
Pork bones	4.30	9.23	7.29
Fish, shrimp	14.20	21.28	18.50
Lean pork paste	0.67	1.44	1.14
Pork viscera	1.15	1.33	1.26
Rice	110.29	84.76	94.77
Eggs	116.52	123.56	120.80

Demand of poultry consumption by multivariate regression equation is:

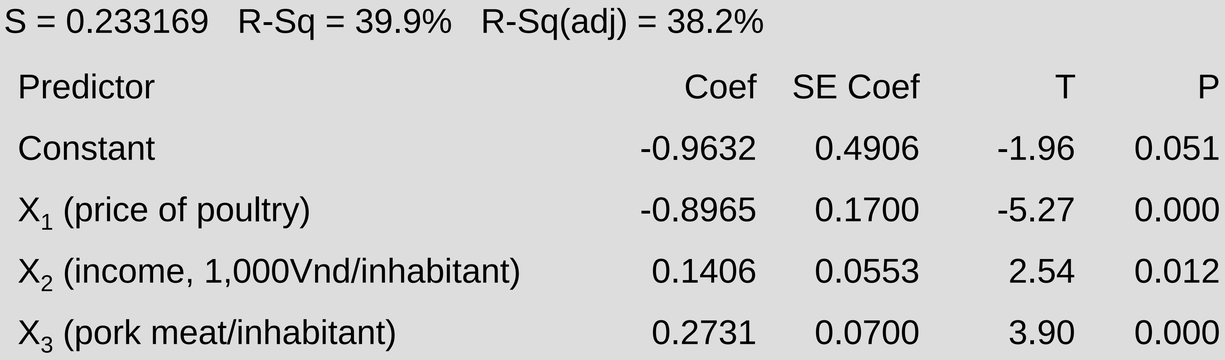
$$Y = - 0.963 - 0.896*X_1 + 0.141*X_2 + 0.273*X_3 + 0.473*X_4 + 0.219*X_5 + 0.215*X_6 + 0.223*X_7$$

S = 0.233169 R-Sq = 39.9% R-Sq(adj) = 38.2%

Predictor	Coef	SE Coef	T	P
Constant	-0.9632	0.4906	-1.96	0.051
X_1 (price of poultry)	-0.8965	0.1700	-5.27	0.000
X_2 (income, 1,000Vnd/inhabitant)	0.1406	0.0553	2.54	0.012
X_3 (pork meat/inhabitant)	0.2731	0.0700	3.90	0.000
X_4 (price meat pork/kg)	0.4726	0.2466	1.92	0.056
X_5 (beverage, 1,000Vnd/inhabitant)	0.2195	0.0430	5.10	0.000
X_6 (fish, crimp, kg/inhabitant)	0.2146	0.0525	4.09	0.000
X_7 (price of fish, crimp)	0.2235	0.1163	1.92	0.056

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	7	8.9203	1.2743	23.44	0.000
Residual Error	247	13.4288	0.0544		
Total	254	22.3492			



Results

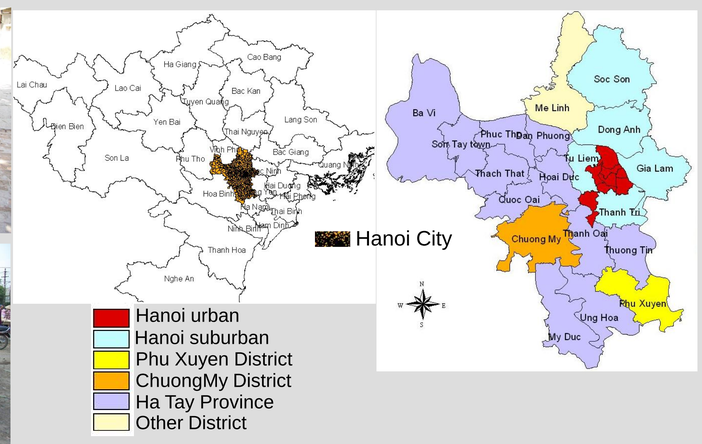


Fig. 1 Districts of research

Table 1 General information of households surveyed

Items	Rural area (n=100)	Urban area (n=155)	All (n=255)
Age of householder (years)	45.90	41.23	43.06
Level of education (years in school)	7.66	10.21	9.21
Number of inhabitants/household	4.83	4.23	4.47
Income per inhabitant/year (1,000 Vnd)	20.729	29.442	26.025

Table 3 Food expenditure per inhabitant per year (1,000 Vnd)

Food products	Rural (n=100)	Urban (n=155)	All (n=255)
Pork	1,066.0	1,173.8	1,131.5
Beef	351.9	715.5	572.9
Poultry	672.7	906.8	815.0
Pork bones	198.6	456.8	355.5
Pork viscera	32.0	50.9	43.5
Lean pork paste	46.4	98.7	78.1
Fish, shrimp	451.0	986.6	776.6
Tofu	175.2	230.6	208.9
Rice	1,058.0	1,013.8	1,031.2
Vegetables	592.1	1,284.7	1,013.1
Beverage	350.6	534.1	462.1
Cooking oil	115.3	224.2	181.5
Eggs	208.0	287.5	256.3
Other	48.3	40.0	43.3

Fig. 2 Structure of food consumption

Conclusions

Through incomes of 82% of households in rural area are mainly from agricultural production or from between agriculture and off-farm activities. Thanks to self-made products in most of households, the rural areas are not considerably influent by the present global food and financial crisis.

In rural areas, the soya curd (tofu) and self-made products from broiler chickens, vegetables, and the rice play an important role, occupying from 15% to 30% of food expenditures.

Pork meat and freshwater fish are usually bought in wet markets.

References

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