



Determinants and Influence of Wives' Sex Role Orientation in Urban Family Purchase Decision Making in Malaysia

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ABSTRACT

Changes in the socio-cultural environment such as emergence of women with dual careers entail that dimensions of their influence in family purchase decision making (FDM) be investigated in a specific context. Malaysian society differs from the West in terms of family composition and structure, values, norms, and behaviour, which affect the role that working and nonworking wives play in FDM. This study investigates factors that determine sex role orientation (SRO) of women and its influence on FDM. The methodology used a survey with structured questionnaires on a sample of 1252 working and non-working wives throughout Malaysia. Quota sampling was used to ensure representativeness of Malaysian household's social diversity. Findings reveal that FDM is governed by SRO based on socioeconomic and cultural factors. Wives' SRO influences major purchases of products and services that are bought for the family's consumptions.

Keywords: Family purchase, decision making, sex role orientation, working and nonworking wives

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INTRODUCTION

Family Purchase Decision Making (FDM)

Family purchase decision making (FDM) is the process by which decisions regarding purchases for the families are made. Most purchases by the family will affect the family members directly, as both the process and the outcomes will affect the well-being of family members and the family as a unit. FDM involves different stages such as problem recognition; search for information and purchase depending on the types of products being purchased. Classification of decisions on family purchases is guided by decision areas on whether it is husband dominant, wife dominant, syncratic, or autonomous

The roles played by family members and their relative influence differ with regard to the product being purchased, the stage in the decision making process, and characteristics of families and spouses (Levy and Lee, 2004). In a more macro perspective, role structure varies with regards to culture and societal development of the country (Cotte and Wood, 2004; Commuri and Gentry, 2000; Xia *et al.*, 2006). These roles may change over time due to changes in the environment, which consequently may lead to adjustments in the role structure of the decision making process. Role structure and spousal relative influence in FDM involve complex issues and need the incorporation of cross disciplinary inquiries and perspectives such as sociology, anthropology, economics and marketing.

Studies across Eastern (Chinese) culture show that changing roles of women, both traditional and modern have differential effects on adoption of strategies in family purchase decision (Dong and Li, 2007). A family has a tendency to make a joint decision in problem recognition and in the final decision stages, but wives were found to play a dominant role in the information search stage (Wang *et al.*, 2002). Similar findings were found in the Turkish market, with wives having a significant role in a number of purchase tasks on family holidays purchase. Women appear to be particularly influential in the purchase tasks such as information search, information processing and determination of a specific package holiday to be purchased for their families (Koc, 2004). In the Malaysian context, it was found that modern families tend to make more joint purchase decisions in FDM on product purchase such as furniture and family vacation than traditional families (Ndubisi and Koo, 2006). There are studies which revealed a significant shift in decision making which used to have been husband-dominant towards toward joint decision making (Litvin, Xu and Kang, 2004).

An improved understanding of spousal decision making may have implications for people who market to couples. As a result, there has been a recent resurgence in research interest regarding family purchase-decision dynamics (Aribarg *et al.*,

2002; Su *et al.*, 2003, Ward, 2006). Studies have shown that spouses may adjust influence strategies used in purchase decisions over time (Ward, 2005). Marketers may also become more effective at guiding personal selling activities (Aribarg *et al.* 2002) and may gain insight into targeting communication messages to spouses as the spousal decision making process becomes better understood (Petrevu 2001).

A better understanding of how spousal influence is used in family purchase decisions can help marketers to identify influential spouses and to better target communication marketing messages to the spouse who may have primary decision making authority regarding the product in question (Su *et al.*, 2003). Marketers have also acknowledged the importance of differentiating product category in family purchase decisions (Ward, 2006). Aribarg *et al.* (2002) determined that product category may impact the effectiveness of salesperson strategies and Seetharaman *et al.* (1999) found that households display similar state dependence across product categories, with income and family size having little influence.

Sex Role Orientation (SRO)

SRO is one of the factors that influence role structure in family purchase decision making. It involves those values and norms that are related to the duties and responsibilities of each sex (Samsinar *et al.*, 2004). It may be thought of as being on an array along the continuum from traditional to modern. The behavior of each spouse within the family is affected by attitude norms and preferences that each spouse brings into the family. These norms are, in turn, shaped by factors such as individual attitudes, the attitudes of each spouse's parents, and environmental factors.

SRO is a continuum of role orientation based on gender with traditional and egalitarian values at the end of the spectrum. Traditional sex roles tend to emphasize the rigid demarcation of roles played by husbands and wives based on gender. The husbands for example, are expected to take care of decisions regarding investment matters and the wives to take care of groceries. On the other hand, in an egalitarian setting, gender of husbands and wives do not play a part in determining their roles in family purchases. SRO varies with education level, occupation and household income. Wives with higher levels of education were found to be more modern (egalitarian) in their SRO (Samsinar *et al.*, 2004).

Sex role norm is an important factor in family decision making especially in the context of the wife's involvement in the decision making process. Even though past studies have supported this idea (e.g. Samsinar *et al.*, 2004; Makgosa, 2010),

additional studies need to be conducted to investigate what factors influence the perceptions of SRO and how SRO interacts with other factors, such as wives' employment in determining role structure in the family decision making process.

SRO and task allocation within a family are evolving; therefore traditional generalizations about family decision making may be obsolete. Non-traditional husbands are playing a greater role in the purchase of traditionally wife dominated products, and wives are playing a more active role in traditional husband dominated purchases such as durable goods and financial management.

Lee and Beatty (2002) found that Chinese mothers who contribute in providing for their families have significant influence on FDM. Further, the amount of influence exerted by family members is found to be dependent on their families' SRO and their mothers' occupational status. Past studies in SRO on FDM has been made across different product categories ranging from holidays (Wang *et al.*, 2002), automobiles, TV and financial planning (Belch and Willis, 2002) to restaurants (Labrecque and Ricard, 2001). Overall significant changes in the household structure did shift SRO assumed in the family decision-making process, with the wife gaining more influence in all purchase decision areas (Belch and Willis, 2002).

RESEARCH CONTEXT

The current study is carried out in Malaysia, a country with a population of 27 million people. Approximately 40% of the population is married, while 0.5% is divorced. The percentage of married individuals in Malaysia has increased slightly from 1997, while the marriage rate has decreased from 8.0 per 1,000 population in 1995 to 5.8 in 2007. The average marrying age has increased for both the men and women in Malaysia. It was 24.7 years old for the women in 1995, and 25.4 years old in 2007. As for the men, the average age has increased from 28.15 years old to 28.9 years old (Euromonitor, 2010).

The marked increase in the marrying age of women can be attributed to them completing higher levels of education and entering the workforce. They are also more focused in their career, consequently delaying marriage. This trend also leads to the increase in dual income families with very different needs compared to previously when the husbands were the sole breadwinner in majority of the Malaysian family. Women are also delaying their marriages as they perceived career advancement to be more important and that the presence of children would hinder their work aspirations. The average family size for these women have become smaller as parents would focus more on the quality rather than the quantity of their children (Chan and Mohamed, 2008).

Studies on evaluation of husbands' and wives' influence in FDM in Malaysia are rare and are heavily reliant on studies conducted mainly on households in early 2000. Since that time, profound transformation has occurred in the Malaysian family. More urban families with nuclear family structure now dominate the metropolitan style of living. Malaysian women are more liberalised as they have distinct hybrid roles as dual career wives. Such significant changes in roles assumed in the family decision-making process could affect the nature of decision making in the household. Wives who assume the modern and non-traditional role could have gained more influence in many decision areas. Hence it is necessary to re-examine and review the degree to which earlier findings are still generalisable today.

RESEARCH OBJECTIVES

The main objective of the study is to investigate demographic, cultural and socioeconomic factors that determine wives' SRO and consequently how wives' SRO affects FDM. Specifically, the study aims to determine whether there are any differences in wives' SRO based on selected demographic variables by region and socioeconomic factors such as income level and working or non-working status. Selected cultural elements such as ethnicity, major spoken language at home and education level are examined. The effect of SRO on FDM was tested on fifteen (15) selected products and services purchased by household.

HYPOTHESES DEVELOPMENT

Consistent with the objectives of this study and past studies, the following hypotheses were developed and tested with a contemporary sample of 1252 working and nonworking wives of Malaysian families.

H1 : Wives' SRO differ based on location of residence.

H2 : Wives' SRO differ based on demographic differences.

H2a : SRO differ based on income of wives.

H2b : SRO differ based on ethnicity of wives

H2c : SRO differ based on education level of wives

H2d : SRO differ based on working status of wives .

H3 : Wives' SRO differ based on cultural differences.

H3a : SRO differed based on major language spoken at home.

H4 : SRO is different based on products and services.

RESEARCH METHODOLOGY

A survey using structured questionnaires was used to collect the data. One thousand two hundred and fifty two (1252) wives in five major urban cities in Malaysia participated in the study. The urban cities of Kuala Lumpur, Kuantan, Johor Bahru, Penang and Kota Kinabalu were selected as they represent the central regions in Malaysia with ethnic, income and social composition diversities. Quota sampling based on ethnicity, region and working status was predetermined to ensure representativeness of Malaysian household's social diversity in an urban setting.

Twenty five (25) enumerators, (5 per location) were selected and trained to conduct interviews for this study. After determining that respondent qualified for the study, and request for interview granted, the interviewer spent approximately 15- 20 minutes interviewing the respondents. The interviews were conducted at the respondents' homes or offices. To ensure the study is carried out in urban settings, the researchers used the respondents' home addresses (postcodes) as the indicator. Questionnaires were checked for completeness and 1252 questionnaires were deemed usable to be analysed.

In this study, a family is operationalised as a man and woman married and living together for at least a year. FDM is operationalised as the process that a family goes through in the purchase of products used by the whole family. Fifteen products and services were selected in the study. These products had been used in previous studies (Xia *et al.*, 2006) and include furniture, electrical appliances, clothing, vacation, and cars. The research instrument used is a modified measure used by previous researchers (e.g. Xia *et al.*, 2006) to measure wives' influence on FDM.

Respondents would indicate whether the purchases are husband dominant (indicated as 1), joint decision (indicated as 2) or wife dominant (indicated as 3). Mean scores were calculated for each product/service category. The tabulation of mean scores between 1-1.7 is considered as husband dominant, 1.71-2.3 as joint decisions and 2.31-3 as wife dominant. SRO was measured using Scanzoni's (1982) twenty-one (21) item measure using 5-point Likert scale. Examples of items included in the measure are as follows: A married man's chief responsibility should

be his job; A married woman's most important task in life should be taking care of her husband and children; If being a wife and mother isn't satisfying enough, a woman should take a job. Data was analysed using descriptive and statistical analysis. Analysis of variance and t-tests were conducted accordingly consistent with the objectives of this study.

RESULTS AND DISCUSSIONS

Table 1 presents the demographic profile of the final sample. Majority of the respondents are between 31 - 40 years old (37%) and 21-30 years old (30%). The ethnic composition of 59% Malay, 27% Chinese and 11% Indians is typical of the Malaysian population. Almost half (43.6%) of the respondents are housewives, and of the working wives, 18.6% are in the clerical category and 24% in management and professional jobs. 42.3% of the working wives earned between RM1,001 - RM5,000 while 40% have a qualification of SPM or equivalent. Almost half of the respondents (49.2%) have been married for less than 10 years. In terms of language spoken at home, 61% of the respondents speak Malay, 20.1% Mandarin, 6.7% Tamil, and 11.3% English.

Table 1 Profile of respondents

Demographic Variable		Frequency	Percent
Age	21-30 years	376	30
	31-40 years	460	37
	41-50 years	262	21
	51-60 years	145	11
	More than 60 years	7	1
Ethnicity	Malay	734	59
	Chinese	338	27
	Indian	123	10
	Others	56	4
Religion	Islam	777	62
	Buddhism	256	21
	Christianity	112	9
	Hinduism	92	7
	Others	14	1

Table 1 (Cont'd)

Occupation	Management	155	12.4
	Professional	145	11.6
	Clerical	233	18.6
	Entrepreneur	56	4.5
	Retired	21	1.7
	Housewife	546	43.6
	Student	9	0.7
	Others	86	6.9
Job duration	Not working	523	41.8
	Less than 5 years	218	17.5
	6-10 years	192	15.4
	11-15 years	147	11.8
	16-20 years	76	6.1
	20-25 years	50	4
	More than 25 years	42	3.4
Monthly income	No income	506	40.4
	Less than RM1000	100	8
	RM1001-RM5000	531	42.4
	RM5001-RM10000	98	7.8
	RM10001-RM15000	13	1
	More than RM20000	4	0.4
Education	SPM or equivalent	527	42.3
	STPM or equivalent	150	12
	Diploma or equivalent	256	20.6
	Bachelor degree or equivalent	202	16.2
	Masters or PhD	39	3.1
	Others	72	5.8
Marriage years	Less than 5 years	317	25.4
	6-10 years	297	23.8
	11-15 years	238	19.1
	16-20 years	163	13
	21-25 years	101	8.1
	More than 25 years	133	10.6
Spoken language at home	Malay	754	61
	Chinese	248	20.1
	Tamil	83	6.7
	English	139	11.3
	Others	11	0.9

The following sections presents the evaluation of the hypotheses of the study:

H1 : SRO differ based on location of residence in Malaysia.

From Table 2, *M* measures the mean value of the presence of SRO of respondents in different location. A high SRO would signify the greater tendency for a wife to exhibit traditional roles versus modern/non-traditional role. It can be seen that overall, the wives' SRO are rather traditional ($M = 3.70$). Respondents in Kota Kinabalu score the highest ($M = 3.83$) and Klang Valley the lowest ($M = 3.55$). These findings show that the wives in Kota Kinabalu are most traditional and those in Klang Valley as most modern.

Table 2 Mean values of SRO of respondents by location

Location	No of respondents	Mean (M)	Std. Deviation (SD)
Klang Valley	251	3.55	0.38
Johor Bahru	250	3.80	0.42
Penang	250	3.63	0.35
Kuantan	249	3.71	0.40
Kota Kinabalu	252	3.83	0.38
Total	1252	3.70	0.40

The one-way ANOVA was utilized to test whether SRO is different based on region as shown in Table 3. Results indicate that there are significant differences in SRO based on location of data collection ($F = 22.053, p < .000$).

Table 3 ANOVA result of SRO by location

	Sum of squares	df	Mean square	F	Sig. (p)
Between groups	13.191	4	3.298	22.053	.000
Within groups	186.474	1247	.150		
Total	199.665	1251			

Table 4 Post hoc analysis of SRO by location

Location	Location	Mean Difference (I-J)	Std. Error	Sig.	95% confidence interval	
					Lower bound	Upper bound
Klang Valley	Johor Bahru	-.24397*	.03578	.000	-.3446	-.1433
	Penang	-.07918	.03282	.151	-.1715	.0131
	Kuantan	-.15629*	.03488	.000	-.2544	-.0582
	Kota Kinabalu	-.27716*	.03386	.000	-.3724	-.1819
Johor Bahru	Klang Valley	.24397*	.03578	.000	.1433	.3446
	Penang	.16479*	.03466	.000	.0673	.2623
	Kuantan	.08768	.03662	.158	-.0153	.1907
	Kota Kinabalu	-.03319	.03565	.987	-.1334	.0671
Penang	Klang Valley	.07918	.03282	.151	-.0131	.1715
	Johor Bahru	-.16479*	.03466	.000	-.2623	-.0673
	Kuantan	-.07711	.03373	.205	-.1720	.0178
	Kota Kinabalu	-.19798*	.03268	.000	-.2899	-.1061
Kuantan	Klang Valley	.15629*	.03488	.000	.0582	.2544
	Johor Bahru	-.08768	.03662	.158	-.1907	.0153
	Penang	.07711	.03373	.205	-.0178	.1720
	Kota Kinabalu	-.12087*	.03475	.005	-.2186	-.0231
Kota Kinabalu	Klang Valley	.27716*	.03386	.000	.1819	.3724
	Johor Bahru	.03319	.03565	.987	-.0671	.1334
	Penang	.19798*	.03268	.000	.1061	.2899
	Kuantan	.12087*	.03475	.005	.0231	.2186

The post hoc analysis in Table 4 shows that significant differences of SRO exist between respondents in the Klang Valley and respondents from Johor Bahru, Kuantan and Kota Kinabalu; between respondents from Penang and those from Johor Bahru and Kota Kinabalu; between respondents from Kuantan and those from Kota Kinabalu.

H2a: SRO differ based on income of wives.

ANOVA analysis was conducted to determine if there are significant differences in SRO based on monthly income levels of respondents and the results shown in Table 5 indicate that there is a significant difference ($F = 3.848, p < .002$).

Table 5 ANOVA result of SRO by monthly income level

	Sum of squares	Df	Mean square	F	Sig. (p)
Between groups	3.036	5	.607	3.848	.002
Within groups	196.629	1246	.158		
Total	199.665	1251			

The mean values in Table 6 shows that respondents who earn above RM 20,000 have the highest scores ($M = 3.80$) whilst those in the RM10,001 to RM 15,000 income bracket scored the least ($M = 3.42$). The post hoc analysis in Table 7 shows that there are significant differences between the “no income” group and the RM1001 to RM 5000 group.

Table 6 Mean values of SRO based on monthly income levels

Income level	No of respondents	Mean (M)	Std. Deviation
No income	506	3.75	0.40
Less than RM1k	100	3.69	0.45
RM1001-RM5000	531	3.67	0.39
RM5001-RM10000	98	3.70	0.39
RM10001-RM15000	13	3.42	0.35
More than RM20000	4	3.80	0.35
Total	1252	3.70	0.40

Table 7 Post hoc analysis of SRO by income level

(I) Monthly income	(J) Monthly income	Mean difference (I-J)	Std. Error	Sig.	95% confidence interval	
					Lower bound	Upper bound
No income	Less than RM1k	.06090	.04791	.969	-.0819	.2037
	RM1001-RM5000	.08696*	.02446	.006	.0152	.1587
	RM5001-RM10000	.05112	.04345	.984	-.0783	.1806
	RM10001-RM15000	.32718	.09828	.080	-.0249	.6792
	More than RM20000	-.04553	.17733	1.000	-1.5152	1.4241
Less than RM1k	No income	-.06090	.04791	.969	-.2037	.0819
	RM1001-RM5000	.02606	.04760	1.000	-.1159	.1680
	RM5001-RM10000	-.00978	.05963	1.000	-.1865	.1670
	RM10001-RM15000	.26628	.10643	.289	-.0938	.6263
	More than RM20000	-.10643	.18197	1.000	-1.4399	1.2270
RM1001-RM5000	No income	-.08696*	.02446	.006	-.1587	-.0152
	Less than RM1k	-.02606	.04760	1.000	-.1680	.1159
	RM5001-RM10000	-.03584	.04311	1.000	-.1643	.0927
	RM10001-RM15000	.24023	.09813	.363	-.1118	.5922
	More than RM20000	-.13248	.17725	1.000	-1.6050	1.3400
RM5001-RM10000	No income	-.05112	.04345	.984	-.1806	.0783
	Less than RM1k	.00978	.05963	1.000	-.1670	.1865
	RM1001-RM5000	.03584	.04311	1.000	-.0927	.1643
	RM10001-RM15000	.27606	.10450	.233	-.0815	.6336
	More than RM20000	-.09665	.18085	1.000	-1.4595	1.2662
RM10001-RM15000	No income	-.32718	.09828	.080	-.6792	.0249
	Less than RM1k	-.26628	.10643	.289	-.6263	.0938
	RM1001-RM5000	-.24023	.09813	.363	-.5922	.1118
	RM5001-RM10000	-.27606	.10450	.233	-.6336	.0815
	More than RM20000	-.37271	.20119	.862	-1.4284	.6830
More than RM20000	No income	.04553	.17733	1.000	-1.4241	1.5152
	Less than RM1k	.10643	.18197	1.000	-1.2270	1.4399
	RM1001-RM5000	.13248	.17725	1.000	-1.3400	1.6050
	RM5001-RM10000	.09665	.18085	1.000	-1.2662	1.4595
	RM10001-RM15000	.37271	.20119	.862	-.6830	1.4284

H2b: SRO differ based on ethnicity of wives

The mean values in Table 8 shows that Indian wives score the lowest ($M = 3.67$) whilst those who regarded themselves as belonging to “other” races score the highest ($M = 3.86$). This implies that the Indian wives are the most modern relative to wives of the three other races.

Table 8 Mean values of SRO based on ethnicity

Race	No of respondents	Mean (M)	Std. Deviation (SD)
Malay	734	3.70	0.39
Chinese	338	3.70	0.42
Indian	123	3.67	0.38
Others	56	3.86	0.41
Total	1251	3.70	0.40

Based on the ANOVA result shown in Table 9, significant differences exist between races in terms of SRO and the post hoc analysis in Table 10 indicates that respondents who identified themselves as belonging to “other” races have significant differences compared to respondents of Malay and Indian races.

Table 9 ANOVA result of SRO based on ethnicity

	Sum of squares	df	Mean square	F	Sig.(p)
Between groups	1.531	3	.510	3.213	.022
Within groups	198.130	1247	.159		
Total	199.662	1250			

Table 10 Post hoc analysis of SRO based on ethnicity

(I) Race	(J) Race	Mean difference (I-J)	Std. Error	Sig.	95% confidence interval	
					Lower bound	Upper bound
Malay	Chinese	-.00855	.02691	1.000	-.0796	.0625
	Indian	.02354	.03716	.989	-.0754	.1225
	Others	-.16399*	.05706	.033	-.3190	-.0090
Chinese	Malay	.00855	.02691	1.000	-.0625	.0796
	Indian	.03209	.04107	.968	-.0769	.1411
	Others	-.15543	.05968	.065	-.3167	.0059
Indian	Malay	-.02354	.03716	.989	-.1225	.0754
	Chinese	-.03209	.04107	.968	-.1411	.0769
	Others	-.18752*	.06495	.028	-.3619	-.0131
Others	Malay	.16399*	.05706	.033	.0090	.3190
	Chinese	.15543	.05968	.065	-.0059	.3167
	Indian	.18752*	.06495	.028	.0131	.3619

H2c: SRO differ based on education level of wives

The mean values in Table 11 show that respondents with SPM or equivalent have the highest SRO scores ($M = 3.76$) whilst those with Masters or PhD have the lowest ($M = 3.57$). It can be implied from this finding that wives with higher level education have a more modern orientation relative to the wives with lower level of education.

Table 11 Mean values of SRO based on level of education

Education level	No of respondents	Mean (M)	Std. Deviation (SD)
SPM or equivalent	527	3.76	0.39
STPM or equivalent	150	3.72	0.37
Diploma or equivalent	256	3.65	0.42
Bachelor degree or equivalent	202	3.63	0.41
Masters or PhD	39	3.57	0.41
Others	72	3.65	0.36
Total	1246	3.70	0.40

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The ANOVA analysis of SRO in terms of the educational level of respondents shown in Table 12 indicates that significant differences exist in SRO in terms of the level of education of respondents ($F = 5.717, p < .000$). The post hoc analysis shown in Table 13 reveals that respondents who have SPM or equivalent qualification have significant differences with respondents who have Diploma or equivalent and Bachelor or equivalent.

Table 12 ANOVA of SRO based on level of education

	Sum of squares	Df	Mean square	F	Sig. (p)
Between groups	4.472	5	.894	5.717	.000
Within groups	193.987	1240	.156		
Total	198.458	1245			

Table 13 Post hoc analysis of SRO based on level of education

(I) Education level	(J) Education level	Mean difference (I-J)	Std. Error	Sig.	95% confidence interval	
					Lower bound	Upper bound
SPM or equivalent	STPM or equivalent	.04033	.03454	.985	-.0618	.1424
	Diploma or equivalent	.10963*	.03111	.007	.0181	.2012
	Bachelor degree or equivalent	.12931*	.03325	.002	.0313	.2273
	Masters or PhD	.19374	.06725	.088	-.0146	.4021
	Others	.11524	.04626	.196	-.0237	.2542
STPM or equivalent	SPM or equivalent	-.04033	.03454	.985	-.1424	.0618
	Diploma or equivalent	.06929	.03971	.722	-.0478	.1864
	Bachelor degree or equivalent	.08897	.04141	.390	-.0331	.2111
	Masters or PhD	.15341	.07164	.429	-.0658	.3726
	Others	.07491	.05243	.920	-.0813	.2311

Table 13 (*Cont'd*)

Diploma or equivalent	SPM or equivalent	-.10963*	.03111	.007	-.2012	-.0181
	STPM or equivalent	-.06929	.03971	.722	-.1864	.0478
	Bachelor degree or equivalent	.01968	.03860	1.000	-.0939	.1333
	Masters or PhD	.08412	.07005	.982	-.1310	.2993
	Others	.00561	.05024	1.000	-.1443	.1555
Bachelor degree or equivalent	SPM or equivalent	-.12931*	.03325	.002	-.2273	-.0313
	STPM or equivalent	-.08897	.04141	.390	-.2111	.0331
	Diploma or equivalent	-.01968	.03860	1.000	-.1333	.0939
	Masters or PhD	.06444	.07102	.999	-.1532	.2821
	Others	-.01406	.05160	1.000	-.1678	.1397
Masters or PhD	SPM or equivalent	-.19374	.06725	.088	-.4021	.0146
	STPM or equivalent	-.15341	.07164	.429	-.3726	.0658
	Diploma or equivalent	-.08412	.07005	.982	-.2993	.1310
	Bachelor degree or equivalent	-.06444	.07102	.999	-.2821	.1532
	Others	-.07850	.07797	.997	-.3147	.1577
Others	SPM or equivalent	-.11524	.04626	.196	-.2542	.0237
	STPM or equivalent	-.07491	.05243	.920	-.2311	.0813
	Diploma or equivalent	-.00561	.05024	1.000	-.1555	.1443
	Bachelor degree or equivalent	.01406	.05160	1.000	-.1397	.1678
	Masters or PhD	.07850	.07797	.997	-.1577	.3147

H2d: SRO differ based on working status of wives

The mean values of SRO based on working wives versus housewives are shown in Table 14. Findings show that housewives have a higher score ($M = 3.73$) than working wives ($M = 3.68$) in terms of SRO. This means that working wives have more modern SRO orientations relative to housewives. The ANOVA result

in Table 15 indicates that there is a significant difference between housewives and working wives in terms of SRO ($F = 6.109, p < .014$).

Table 14 Mean values of SRO based on working status

	No of respondents	Mean (M)	Std. Deviation (SD)
House wives	558	3.73	0.40
Working wives	693	3.68	0.40
Total	1251	3.70	0.40

Table 15 ANOVA result of SRO by working status

	Sum of squares	df	Mean square	F	Sig. (p)
Between groups	.972	1	.972	6.109	.014
Within groups	198.692	1249	.159		
Total	199.664	1250			

H3a: SRO differ based on major language spoken at home

The mean values shown in Table 16 reveal that respondents who speak English score the lowest ($M = 3.59$) whilst those who speak “other” languages score the highest ($M = 3.89$). This finding implies that English speaking wives have the most modern SRO and that those who speak ‘other’ language have the least modern SRO.

Table 16 Mean values of SRO based on major language spoken at home

Language spoken at home	No of respondents	Mean (M)	Std. Deviation
Malay	754	3.71	0.40
Chinese	248	3.72	0.42
Tamil	83	3.76	0.37
English	139	3.59	0.40
Others	11	3.89	0.36
Total	1235	3.70	0.40

According to the ANOVA result shown in Table 17, there are significant differences in SRO in terms of the major language spoken at home ($F = 3.884, p < .004$) and the post hoc in Table 18 indicates that significant differences exists between those respondents who speak English at home and those who speak Malay, Chinese and Indian.

Table 17 ANOVA analysis of SRO based on major language spoken at home

	Sum of squares	df	Mean square	F	Sig. (p)
Between groups	2.480	4	.620	3.884	.004
Within groups	196.341	1230	.160		
Total	198.821	1234			

Table 18 Post hoc analysis of SRO based on major language spoken at home

(I) Major language	(J) Major language	Mean difference (I-J)	Std. Error	Sig.	95% confidence interval	
					Lower bound	Upper bound
Malay	Chinese	-.00412	.03007	1.000	-.0888	.0805
	Tamil	-.05018	.04318	.942	-.1737	.0733
	English	.11910*	.03692	.015	.0145	.2237
	Others	-.18240	.10927	.737	-.5687	.2039
Chinese	Malay	.00412	.03007	1.000	-.0805	.0888
	Tamil	-.04606	.04847	.985	-.1837	.0916
	English	.12321*	.04299	.044	.0020	.2445
	Others	-.17829	.11147	.772	-.5648	.2082
Tamil	Malay	.05018	.04318	.942	-.0733	.1737
	Chinese	.04606	.04847	.985	-.0916	.1837
	English	.16928*	.05299	.016	.0191	.3194
	Others	-.13222	.11569	.959	-.5211	.2566
English	Malay	-.11910*	.03692	.015	-.2237	-.0145
	Chinese	-.12321*	.04299	.044	-.2445	-.0020
	Tamil	-.16928*	.05299	.016	-.3194	-.0191
	Others	-.30150	.11351	.190	-.6889	.0859
Others	Malay	.18240	.10927	.737	-.2039	.5687
	Chinese	.17829	.11147	.772	-.2082	.5648
	Tamil	.13222	.11569	.959	-.2566	.5211
	English	.30150	.11351	.190	-.0859	.6889

H5 : The effects of SRO is different based on products and services

Determinants and Influence of Wives' Sex Role Orientation

The ANOVA analysis result in Table 19 indicates that based on SRO, the family influence pattern is significantly different for the following products/services: furniture ($p < 0.015$), computers ($p < 0.000$), children's clothes ($p < 0.027$), wife's clothes ($p < 0.046$), vacation ($p < 0.004$), education ($p < 0.040$), insurance ($p < 0.023$) and groceries ($p < 0.000$). Since there are only two groups of SRO (modern and conservative), no post hoc analysis was conducted.

Table 19 ANOVA analysis of effect of SRO on product purchase for families

		Sum of squares	df	Mean square	F	Sig. (p)
Furniture	Between groups	1.218	1	1.218	5.952	.015*
	Within groups	198.705	971	.205		
	Total	199.923	972			
Electrical	Between groups	.026	1	.026	.107	.744
	Within groups	238.032	969	.246		
	Total	238.058	970			
Computers	Between groups	4.663	1	4.663	16.785	.000*
	Within groups	269.204	969	.278		
	Total	273.867	970			
Clothes children	Between groups	1.198	1	1.198	4.895	.027*
	Within groups	231.916	948	.245		
	Total	233.114	949			
Clothes wife	Between groups	.982	1	.982	4.001	.046*
	Within groups	238.062	970	.245		
	Total	239.044	971			
Clothes husband	Between groups	.114	1	.114	.339	.561
	Within groups	325.311	970	.335		
	Total	325.425	971			
Vacation	Between groups	1.243	1	1.243	8.176	.004*
	Within groups	145.511	957	.152		
	Total	146.754	958			
Eating out	Between groups	.037	1	.037	.203	.652
	Within groups	174.817	967	.181		
	Total	174.854	968			
Education	Between groups	1.121	1	1.121	4.226	.040*
	Within groups	255.988	965	.265		
	Total	257.109	966			

Table 13 (*Cont'd*)

Entertainment	Between groups	.003	1	.003	.012	.914
	Within groups	249.719	950	.263		
	Total	249.722	951			
Bank account	Between groups	.683	1	.683	2.996	.084
	Within groups	212.277	931	.228		
	Total	212.961	932			
Insurance	Between groups	1.543	1	1.543	5.177	.023*
	Within groups	280.836	942	.298		
	Total	282.380	943			
Home	Between groups	.001	1	.001	.005	.941
	Within groups	213.018	966	.221		
	Total	213.019	967			
Cars	Between groups	.109	1	.109	.473	.492
	Within groups	223.248	968	.231		
	Total	223.357	969			
Groceries	Between groups	4.663	1	4.663	16.785	.000*
	Within groups	269.204	969	.278		
	Total	273.867	970			

* The mean difference is significant at the 0.05 level

Findings show that for furniture, purchase decision is basically a joint decision; however modern oriented wives are relatively more influential. As for the purchase of computers, the modern oriented wives determine their purchase decision whilst for the conservative oriented wives it is the husband's decision and hence the modern oriented wives have relatively more influence. In terms of the wife's clothes, it is her decision regardless of SRO and modern oriented wives are found to be relatively more influential. For children's clothes, wives make the decision no matter the SRO even though modern oriented wives have relatively more influence. As for education, it is a joint decision irrespective of SRO and that modern oriented wives are relatively more influential. As for insurance, it is found that the purchase decision is determined by the husband for conservative oriented wives but a joint decision for modern oriented wives. For the purchase of groceries, it is revealed that for conservative wives, it is a joint decision but modern oriented wives determine their own decision. With respect to vacation, it indicates that it is a joint decision regardless of SRO, however, modern oriented wives have relatively more influence.

CONCLUSION

One of the findings of this study is that there are significant differences in SRO between the different locations of Malaysia. The respondents in Kota Kinabalu are found to be most conservative whereas those in the Klang Valley are most modern. Kota Kinabalu is located in East Malaysia which is not as cosmopolitan compared to cities in the Klang Valley and Penang. Wives in Penang are similar to those in the Klang Valley in terms of their SRO. They are found to be more liberal and more open minded. As these two cities are more cosmopolitan than the other three cities of Kuantan, Johor Bahru and Kota Kinabalu, wives from these regions are expected to be exposed to experiences which are different in the other cities. They are more willing to share responsibilities and household chores with their husbands regardless of whether these chores are traditionally male-dominated.

Another significant finding of this study is that higher income, higher educated working wives and wives who spoke English at home, have relatively more modern SRO. These findings are quite coherent in that these indicators when summed up reflect that SRO may be used to indicate individual modernity. As indicated in the findings, wives with both high income and high education show indicators of modern women, and using the SRO is actually a good indicator for modernism.

The findings also indicate a significant difference of SRO based on ethnicity. Indian wives are perceived to be more modern than the Malay and Chinese wives. This is consistent with a previous study by Samsinar *et al.* (2004). Indian wives' who have more modern orientation could be explained due to their relatively better command of the English Language and this factor consequently influence their role orientations. This is corroborated by Makgosa (2010) in which the effects of SRO are significant across ethnic groups in joint purchase decision of household durables in terms of conflict resolution strategies.

Housewives and working wives are found to have significantly different SRO. This is consistent with other findings of this study which again points to the general proposition that wives who are exposed to more experiences and challenges outside the house have a more open and liberal outlook in life. There is no denying the increasing evidence of changing SRO of the Malaysian women as well as shifting demographic patterns caused by increasing female participation in workforce, higher educational standards and delayed age of marriage and child birth. Similar findings by Gupta (2013) were found among Indian households where the relative influence of wives with liberal SRO had marked differences from wives with traditional SR) and wives with high SRO score have a high incidence of joint decision and dominated purchase decisions across products.

It is also interesting to note that SRO effect varies with certain product / service purchases. SRO has a more prominent effect on the purchase of the more expensive services and those products that are not bought jointly. As major purchases require more effort and inputs, wives with more modern SRO would have more influence in these high involvement purchases. Furthermore, the modern wives perceive that they have more experience and information and consequently would be able to make better purchase decisions. The differences in SRO on purchase decision could be explained by the income pooling system of their families. Modern wives tend to have individual control over their income (individual pool system) as opposed to joint or common pool as evident in urban Malaysian households. Explanation is consistent with findings from Teo and Chuah (2009).

One major implication of this study is that wives' SRO varies with certain demographic variables. Findings are consistent to indicate the more modern wives have relatively modern SRO. Thus, marketers can safely imply that these modern wives can be their target markets for those products that are not traditionally targeted to them. These wives have acquired the necessary experience and skills to be able to influence purchase decisions for these products. However, marketers should be aware that not all purchases of products and services are affected by wives' SRO. Wives' SRO affects only those major purchases that are bought autonomously by husbands and wives, and purchases of major services.

It may be inferred from this study that industrialisation and modernisation of a country do have an impact on how purchase decisions are made in the families. These changes brought opportunities for women (wives) working outside their homes, which consequently change their value systems. As many of these women stay working even after marriage, modifications need to be made to purchase decision making process in the family. The findings of this study indicate that these modifications are affected by sex role orientation. Similar views by Wibisono (2013) further support evidence that as more wives are working outside home and acting as a source of income, and even to some extent becoming chief wage earner in the family, husband's perception and value towards family purchase decisions have evolved.

The findings in this study should be interpreted with caution. Eventhough sample was taken from five different regions of Malaysia; it was taken from urban settings, and may not be reflective of Malaysian population in general. It is recommended that future research should investigate the effects of SRO in other regions of Malaysia, and to include the non-urban setting. More studies should also be conducted to examine the differences between the working and non-working wives' values and belief systems. It is suggested that the responses from both husbands and wives be included as there may be biasness in the responses given

by the wives.

In conclusion, this study has achieved its objectives. Income, education, ethnicity and working status of wives and language spoken at home are some of the determinants of SRO. SRO is also found to have a significant impact on the major and more expensive purchases. As it varies with income and education of the wives, SRO is assumed to improve, and the wives are expected to have more influence in the future purchase decision making.

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