

The Gender Difference on the Usage of Automobile of Young People in Taiwan

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Abstract: This study investigates current situations about car purchase, use modes and lifestyles of 22-45 years old office workers with different genders in Taiwan, thus to find out relevance between "gender difference" and "potential use demands and product design". 12 individual interviews and 270 questionnaire surveys were conducted successively so as to know different-gender young groups' similarities and differences in car purchase motivation, brand preference, operation mode, lifestyle, etc.

As per results of individual interviews and questionnaire surveys of this study, male and female young people mainly consider appearance, cheapness, low fuel consumption, etc. when buying a car. Most of the single choose small-scale motor home while the married mostly purchase recreational vehicle for carrying family members. Regarding brand of motor home, Toyota Corolla Altis and Mitsubishi Lancer account for the largest proportion. Among recreational vehicles, Toyota Wish constitutes the highest ratio. Lifestyle factors are analyzed as following types: (1) pragmatic, (2) knowledge-seeking, (3) impulsive-spending, (4) competent and active, (5) healthy and leisurely, (6) busy-with-work. Use modes are divided into following six types by factor analysis: (1) law-abiding, (2) careless, (3) familiar, (4) comprehensive, (5) casual, (6) good-care. Average scores of car use factors show young males and females in Taiwan generally emphasize on safe operation, follow traffic rules, have good skill in driving and seek sense of speed. In terms of gender difference, females are obviously inferior to males in confidence and emergency response. For example, females feel difficult in steering wheel manipulation, easily engage a wrong gear or step on the gas by mistake, and don't know what to do with traffic accident or car repair. Results of this study can provide a reference for relevant research development as well as designers and automobile manufacturers' new products design in the future.

Key words: *young group, gender difference, lifestyle, automobile, use mode*

1. Introduction

1.1 Research backgrounds

Young group is the main motive power of current consumer market as well as the mainstream of lifestyle trend. Along with changes in social life and values as well as consumer group structure, young people now don't need to bear expenses of the family and own independent economic capability. Two or three years after entering society, due to job or leisure demand, they will buy their first car, which then becomes a necessary vehicle in life. At the

same time, because of differences in work requirement, hobby, characteristic and self-concept, young males and females have different demands on car. As per traditional conception of "men going out to work and women staying home" driving car was considered as man's duty in the past. However, professional women's requirements for car driving have significantly increased nowadays. Actually, present-day men and women both show an enhancement in car demand and consumption capacity. Therefore, for automobile design and consumer market, different needs of these two groups should be taken into consideration in the future and research theme in this respect deserves our in-depth investigation.

1.2 Research purposes and approaches

This research performs case study and questionnaire survey among 22-45 years old office workers of different genders in Taiwan and discusses the theme from perspectives of different-gender young people's car use modes and lifestyles, so as to investigate what are key considerations for young groups with different genders when they purchase cars and choose use modes. Firstly, it conducts interviews with 12 young groups in Taiwan to know information about car use, possession, maintenance, etc., and then generalizes and analyzes the results to examine appropriateness of questionnaire. Next, it implements questionnaire survey among 270 young Taiwanese, contents covering car purchase preference, operation, lifestyle, etc. With regard to use mode, Likert scale is utilized to make interviewees tell in the questionnaires their feels of accepting different usages and the felt information are then converted into quantitative data. Finally, AIOs lifestyle scale and SPSS are used to complete factor analysis and thus investigate lifestyle group classifications, car purchase considerations and usage requirements of young groups in Taiwan. Results of this study help know relevance between "gender difference" and "potential usage demands and product design", function as a reference for future relevant researchers, and offer a direction for designers and automobile manufacturers to design new products in the future.

2. Literature review

This study investigates different-gender young groups' differences in car use modes and lifestyles. The literature review is directed towards knowledge and theories about "definition of young group in Taiwan", "different topics and viewpoints of gender", "Taiwan automobile market situation", etc.

2.1 Definition of young group in Taiwan

Lienti Bei (2000) says "generation" increases as time goes by while "group" represents specified age level or behavioral pattern. In the research on three generations' lifestyles, expense manners and consuming behaviors in Taiwan, Shyh-Ming Huang (1999) classified three generations as below: baby boomers of 49~63 (born during 1949 and 1963), X generation of 34~48 (born during 1964 and 1978) and Y generation of 19~33 (born during 1979 and 1993). However, differentiation of generation is highly overlapped and somewhat indistinct. Therefore, this study defines age of "young group" as from 22 (graduating from college and beginning to work) to 45 (getting married and having children).

2.2 Gender perspective

Gender perspective is a kind of relative viewpoint that studies how male perspective looks upon females in a patriarchal society and how females respond to patriarchal society. Berenbaum's research (1999) demonstrated hormone affected gender and caused differences in mentality, personal traits, activities and interests. Males have

stronger power of controlling and dominating, possess self-efficacy and seek self-target; females care about themselves and others and emphasize on establishing and maintaining harmonious relationships.

2.3 Summary of Taiwan automobile market

2.3.1 Statistic data of car use in Taiwan

According to statistic report from Highway Administration, 1,201-1,800 C.C constitute the he largest proportion of minibus exhaust volume, about 50%, followed by 1,801-2,400C.C. These data show that quantity of "car" is the greatest in automobile market and the next may be "recreational vehicle".

Results of survey completed by Department of Statistics, Ministry of Transportation and Communications in 2010 revealed: males and females respectively accounted for 70% and 30% of private car drivers in Taiwan; statistic order of purposes of car was: (1) work (42.1%), (2) leisure and shopping (20.9%), (3) visiting or picking up relatives, (19.5%) and (4) business (13.9%).

2.3.2 Automobile sales status in Taiwan

As per sales list of "Automobile forum news" published in February of 2013, Toyota Corolla Altis (Figure 1) is the first, followed by Toyota Wish (Figure 2), Nissan Tiida (Figure 3), Toyota Yaris and Toyota Camry in order. This exhibits Taiwanese's preferences for car brands and popularization of cars.



Figure.1 Toyota Corolla Altis
2013, [10]



Figure.2 Toyota Wish
2013, [10]



Figure.3 Nissan Tiida
2013, [8]

2.4 Relevant researches on automobile consumption and lifestyle of young groups in Taiwan

Domestic and foreign literatures directly related with this paper are disserted in this paper; emphases are summarized and discussed as the following:

1. In "The Study of Life Style and Consumer's Decision of Purchasing the Car for the First Time-Focus on Young Generation" (2005), Wei-Jen Chen divided young people's lifestyles into five types: (1)fashion information, (2)independence and uniqueness, (3)quality enjoyment, (4)style enjoyment, (5)delight in life. Their purchase decisions were classified as five aspects: (1)quality and safety, (2)overall design, (3) performance and manipulation, (4)driving space, (5)cost consideration. It was speculated from research results that groups with different lifestyles had different decisions of purchasing car for the first time and the corresponding style characteristics were also diverse.
2. Wei-Lin Wu conducted a research-"Determinants of Young Consumers' First Purchase of Vehicles- a Case Study for the Hsinchu Area" (2006) and found the most important influential factor of young people's first-time car purchase was "cost" and then was "performance", followed by "quality and maintenance", "appearance" and "functional requirement". For this generation, the relatively unimportant factor was "brand".

3. Individual interview

To know different-gender young groups' differences in car use modes and lifestyles, this study adopts individual interview and questionnaire survey. Objectives of individual interviews are 12 young groups who own cars and belong to different genders. During interviews, things placed inside and appearances of interviewees' present cars are photographed. By means of case data summarization and hypotheses, contents and appropriateness of the questionnaire are determined.

3.1 Implementation and contents of individual interviews and investigations

From middle of September, 2012 till beginning of November, 2012, this study utilized open question-and-answer means to have individual interviews with 12 office works of different genders and aged 22 to 45 in Taiwan, including 6 males and 6 females. Interview contents were recorded by sound recording and transcript. Moreover, camera was used to take photos of internal materials and appearances of these cars and related data are generalized as Table 1.

This study mainly investigates car use modes of young groups of different genders. Therefore, following conditions should be met when choosing interviewees: these young people are the users, registrants are them or their family members, and they have strong economic foundations. Questionnaire items are made up of four parts:













1. Interviewee's basic information and situation of the car.
2. Relevant pre-purchase information, reason for purchase, purpose.
3. Operation responses before, during and after driving as well as car maintenance.
4. Use conditions of the inside and outside of the car during work days and holidays.

3.2 Case analysis and generalization

His study generalizes following conclusions according to results of individual interviews:

1. Among automobiles owned by the 12 interviewees, brand Toyota accounted for the largest proportion and then Nissan. 2 of 7 married interviewees both have two children and buy recreational vehicle. Young groups show differences in car purchase due to diversified marital status.
2. In terms of car purchase, appearance and model is the first consideration, and the next is being fuel-efficient. Compared with females, males more value decorations inside and outside the car. Information origin is mostly recommendation from relatives, friends and family members. Main purpose is work, followed by "picking up family member s or children" and "outdoor leisure".
3. With regard to operation and control before, during and after driving, most interviewees feel accustomed because of long-period use, so there isn't any big problem. Compared with males, females are not so familiar with operation, such as sometimes forgetting to put down hand lever. In addition, females know fewer about car maintenance information. In case of unexpected situation, most men will get off the car and check by themselves but women always call for help.
4. Males and females don't have significant difference in daily purpose of the car. However, occupation brings difference. For instance: Case 05 is a salesman, who has to meet clients here and there; consequently, he takes parking into consideration when choosing the car. Outdoor leisure is main purpose of car in holidays, and then dinning out or shopping.

Table 1. Case background

Case 01 Miss Chen a.25 yrs old/ unmarried/ office workers b.Nissan Verita	Case 02 Miss Chiu a.26 yrs old/ unmarried/ office workers b.Suzuki new swift	Case 03 Miss Tsai a.26 yrs old/ unmarried/ officeholder b.Ford Festiva
		
Case 04 Mr. Chen a.28 yrs old/unmarried/ Auto Mechanic b.Toyota Yaris	Case 05 Miss Su a.29 yrs old/ unmarried/ saleswoman b.Toyota Yaris	Case 06 Miss Huang a.31 yrs old/ married, nurture for 1 children/ office workers b. Nissan Verita
		
Case 07 Mr. Chiang a.32 yrs old/ married/ office workers b.Toyota Camry	Case 08 Mr. Huang a.32 yrs old/ married, nurture for 2 children/ office workers b.Hyundai ix35	Case 09 Mr. Tseng a.32 yrs old/ married, nurture for 2 children/ Since business b.Toyota Wish
		
Case 10 Miss Li a.34 yrs old/ married, nurture for 1 children/ saleswoman b.Mazda 3 5D	Case 11 Mr. Chou a.37 yrs old/ married, nurture for 1 children/ Engineer b.Toyota Altis	Case 12 Mr. Li a.40 yrs old/ married, nurture for 2 children/ Car inspector b.Mr. Li Honda Accord
		

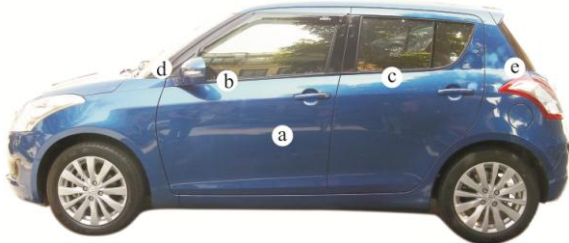
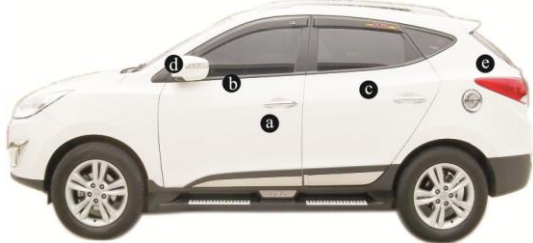




Remarks: a. personal information; b. the possession of currently cars

- From results of individual interviews we find young males and females regard "appearance and model" as primary consideration. Most women choose car models that are in line with their body types. Men enjoy comfort of driving and thus mainly select recreational vehicle. One male and one female are chosen from 12 interviewees as examples and explained as shown in Table 2.
- Table 2 reveals that Case 02 is single, so articles inside the car are mostly personal belongings such as office files or slippers. Case 08 is married and has two children, so outside of his car is quite clean but the inside is in disorder and filled with children's stuff; this interviewee says internal space is cleaned by his wife and he is in charge of appearance.

4. Questionnaire survey

Questionnaire survey is aimed to know different-gender young people's differences in car use modes and lifestyles, determine characteristics of young groups, and thus provide references for designers and automobile manufacturers to develop new products in the future.

Table 2. Explanation of two examples of individual interviews

Case 02 Miss Chiu	Case 08 Mr. Huang
<ul style="list-style-type: none"> • 26 yrs old /unmarried /office workers • Suzuki new swift driving for six months 	<ul style="list-style-type: none"> • 32 yrs old/married, nurture for 2 children/office workers • Hyundai ix35 driving a half years
	
 <p>a. Respondents b. Front seat c. Back seat</p>	 <p>a. Respondents b. Front seat c. Back seat</p>
 <p>d.Console e.The trunk</p>	 <p>d.Console e.The trunk</p>

4.1 Questionnaire contents

Questionnaire survey of this study is aimed at knowing lifestyle group classifications, car purchase considerations and usage requirements of different-gender young groups in Taiwan. The contents are divided into four parts: (1) basic information (9 items): as data of demographic variable; (2) current car purchase and possession (10 items): to know young groups' car model purchase trends and use demands; multiple-choice items included prime consideration, main purposes, additional equipment and personally-preferred accessional articles; (3) behaviors of car manipulation (30 items): males and females' differences in car operation and control; (4) Lifestyle AIOs scale (27 items): to investigate young groups' lifestyles.

4.2 Implementation of questionnaire survey

From January to February of 2013, this study conducted questionnaire survey among young people in geographically northern, middle and southern regions of Taiwan. Questionnaires were sent out by two ways: Internet and paper. Online questionnaires were mainly published on community web sites and automobile forums; paper questionnaires were filled in by family members, relatives and friends. There were 270 questionnaires totally including 200 online questionnaires and 70 paper questionnaires.

4.3 Interviewees' basic information

Table 3 lists respondents' basic information and questionnaire survey results. Males and females make up 60% and 40% of interviewees respectively. 32.6% of interviewees are aged 26-30, 23.0% of whom are males; the next

age range is 31-35 (27.0%). Regarding educational background, graduates account for the largest proportion-53.7%. In terms of occupation, ratio of professional technicians is the highest (25.6%) and men constitute 21.5% of this population; then is business personnel (18.9%) and females make up 13.3%. With respect to marital status, unmarried people are more (64.8%) and 38.5% of them are males. Personal monthly revenue is centered on 41000-50000 (17.4%) and men accounted for 12.6%; the next is 31000-35000 (15.6%). Most respondents have a height of 166-175cm (41.5%), among whom males constitute 35.2%. Speaking of weight, 61-70kg (27.0%) makes up the highest ratio and males account for 22.2%.

4.4 Interviewees' current car purchase situation

Part 2 of this study is directed towards young groups' car purchase trends, purposes and demands. Questionnaire survey results demonstrate that top five of young people's current car models are Toyota Corolla Altis (11.1%), Mitsubishi Lancer (1.9%), Ford Focus (5.9%), Honda Civic (4.4%) and Nissan March , Nissan Tiida & Toyota Yaris (each accounted for 4.1%) in order (Table 3).

Secondly, this study makes a cross analysis of interviewees' marital status and car purchase situations and results show significant difference. The unmarried mostly buy small cars, For example: Toyota Corolla Altis · Mitsubishi Lancer limousine. Taking family members into consideration, the married mainly purchase recreational vehicles, For example: Toyota Wish recreational vehicles.

Statistical results of prime considerations of car purchase, main purposes, additional equipment, personally-preferred accessional articles, etc are as follows:

1. Prime consideration: (1) appearance (50.0%); (2) low fuel consumption (49.6%); (3) cheapness (41.5%)
2. Main purposes of car (1) leisure and travel (69.3%); (2) work (58.5%); (3) picking up relatives or children (39.6%)
3. Additional equipment: (1) driving recorder (68.7%); (2) satellite navigation (60.0%); (3) rearview mirror (35.8%)
4. Personally-preferred accessional articles: (1) tissues (holder) (52.8%); (2) handing lucky hierogram (52.8%); (3) sunglass (40.5%).

5. Factor analysis of car use mode and lifestyle

5.1 The average analysis of car use mode

In Table 4 and line chart of car use mode in Figure 4 that shows averages of car use modes, from item with greatest gap between maximum and minimum averages, we can know different-gender young groups' viewpoints of car use mode High average means "agree" and low average represents "strongly disagree".

From perspective of young groups' commonness in car operation, males and females' average values in Table 4 are very close and items with an average more than 3.5 include 01, 08, 13, 25 etc. These results show young groups quite value safety of road and car operation. In addition, items 04, 21 and 22 demonstrate young groups are skilled in driving and seek sense of speed.

In respect of different-gender young people's differences in car operation, results of items 03, 05, 06 and 20 indicate females are inferior to males in steering wheel manipulation and always engage a wrong gear or step on the gas by mistake. Moreover, with regard to maintenance and emergency, results of items 10, 16 and 17 further reveal that most females don't have maintenance knowledge and ability and feel overwhelmed in case of emergency.

Table 3. Case background and models tables

Item	Content	Males		Females		Sum	
		times	percentage	times	percentage	times	percentage
age	21-25 years old	28	10.4	29	10.7	57	21.1
	26-30 years old	62	23.0	26	9.6	88	32.6
	31-35 years old	38	14.1	35	13.0	73	27.0
	36-40 years old	18	6.7	7	2.6	25	9.3
	More than 41 years old	16	5.9	11	4.1	27	10.0
educational background	Elementary or below	0	0.0	1	0.4	1	0.4
	Junior	0	0.0	0	0.0	0	0.0
	High school (grades)	15	5.6	8	3.0	23	8.5
	Specialist	20	7.4	6	2.2	26	9.6
	graduates	77	28.5	68	25.2	145	53.7
	Graduate	50	18.5	25	9.3	75	27.8
occupation	Civil servants and teachers	18	6.7	17	6.3	35	13.0
	Production operator	16	5.9	0	0.0	16	5.9
	professional technicians	58	21.5	11	4.1	69	25.6
	business personnel	15	5.6	36	13.3	51	18.9
	Service workers	18	6.7	17	6.3	35	13.0
	Since business	19	7.0	8	3.0	27	10.0
	Insurance Foreign staff	4	1.5	0	0.0	4	1.5
	Housewife	0	0.0	2	0.7	2	0.7
	Other	14	5.2	17	6.3	31	11.5
marital status	Unmarried	104	38.5	71	26.3	175	64.8
	Married without children	15	5.6	9	3.3	24	8.9
	Married with children	43	15.9	28	10.4	71	26.3
Personal monthly income	10,000 or below	7	2.6	13	4.8	20	7.4
	11,000-19,000	4	1.5	4	1.5	8	3.0
	20,000-22,000	4	1.5	9	3.3	13	4.8
	23,000-25,000	13	4.8	7	2.6	20	7.4
	26,000-30,000	18	6.7	17	6.3	35	13.0
	31,000-35,000	23	8.5	19	7.0	42	15.6
	36,000-40,000	14	5.2	17	6.3	31	11.5
	41,000-50,000	34	12.6	13	4.8	47	17.4
	51,000-80,000	34	12.6	9	3.3	43	15.9
80,000 or more	11	4.1	0	0.0	11	4.1	
height	155cm or below	0	0.0	24	8.9	24	8.9
	156-165cm	16	5.9	67	24.8	83	30.7
	166-175cm	95	35.2	17	6.3	112	41.5
	176-185cm	47	17.4	0	0.0	47	17.4
	185cm or more	4	1.5	0	0.0	4	1.5
weight	50kg or below	2	0.7	35	13.0	37	13.7
	51-60kg	17	6.3	51	18.9	68	25.2
	61-70kg	60	22.2	13	4.8	73	27.0
	71-80kg	40	14.8	6	2.2	46	17.0
	81-90kg	30	11.1	2	0.7	32	11.9
	91kg or more	13	4.8	1	0.4	14	5.2
Brand, models	Toyota Corolla Altis	17	6.3	13	4.8	30	11.1
	Mitsubishi Lancer	17	6.3	4	1.5	21	7.8
	Ford Focus	13	4.8	3	1.1	16	5.9
	Honda Civic	9	3.3	3	1.1	12	4.4
	Nissan March	2	0.7	9	3.3	11	4.1
	Nissan Tiida	6	2.2	5	1.9	11	4.1
	Toyota Yaris	6	2.2	5	1.9	11	4.1
price	100,000 or below	12	4.4	12	4.4	24	8.9
	110,000-200,000	15	5.6	11	4.1	26	9.6
	210,000-400,000	16	5.9	4	1.5	20	7.4
	410,000-600,000	26	9.6	33	12.2	59	21.9
	610,000-800,000	60	22.2	29	10.7	89	33.0
	810,000-1000,000	18	6.7	17	6.3	35	13.0
	1,010,000-1,500,000	9	3.3	0	0.0	9	3.3
	1,510,000-2,000,000	4	1.5	1	0.4	5	1.9
	2,010,000 or more	2	0.7	1	0.4	3	1.1
exhaust volume	600C.C or below	0	0.0	1	0.4	1	0.4
	601-1,200C.C	2	0.7	13	4.8	15	5.6
	1,201-1,800C.C	93	34.4	69	25.6	162	60.0
	1,801-2,400C.C	59	21.9	24	8.9	83	30.7
	2,401-3,000C.C	5	1.9	0	0.0	5	1.9
	3,001-3,600C.C	2	0.7	1	0.4	3	1.1
	3,601C.C or more	1	0.4	0	0.0	1	0.4
total		162	60.0	108	40.0	270	100.0

Table 4. The average analysis of car use mode Tables

Asked items of car use mode	Male	Female	Total
01. Firstly adjust seat and rearview mirror before driving	3.59	3.59	3.59
02. Design of car seat doesn't fit my height and body type	2.67	2.77	2.71
03. Frequently feel difficult in turning steering wheel	2.31	2.61	2.43
04. Like controlling steering wheel with one hand	3.38	3.12	3.27
05. Occasionally forget to put down hand lever or engage a wrong gear	2.49	3.04	2.71
06. Occasionally step on the gas or brake by mistake	2.18	2.56	2.33
07. Occasionally forget to turn on directional light when making a turn	2.48	2.71	2.57
08. Pay attention to following traffic before getting off the car	3.85	3.78	3.82
09. Lock the car before getting off	3.02	2.94	2.99
10. Have a habit of checking vehicle condition before driving	3.34	2.96	3.19
11. Get used to warming the car before driving	2.82	2.83	2.83
12. Check vehicle condition before a long trip	3.23	3.00	3.14
13. Regularly take the car to garage for maintenance	3.73	3.62	3.69
14. Frequently wash car to keep it clean	3.42	3.11	3.30
15. Wash the car until it is dirty	3.09	3.22	3.14
16. Feel nervous in case of abnormality indicator during driving	3.08	3.51	3.25
17. Check the car by yourself if glitch appears	3.30	2.90	3.14
18. Promptly report to the police in case of traffic accident	3.59	3.60	3.29
19. Call for help when colliding with other's vehicle	3.54	3.72	3.61
20. Be not good at curb parking or reserving car into garage	2.46	2.99	2.67
21. Quite enjoy sense of control and speed during driving	3.68	3.55	3.63
22. Fee impatient if anterior car is too slow	3.59	3.60	3.60
23. Must drive the car once going out	2.91	2.78	2.86
25. Be cautious during night driving	3.67	3.81	3.73
26. Need cordial drink during long trip	2.98	2.83	2.92
27. Like having companions during long trip	3.37	3.54	3.44
28. Have a complete range of supplies inside the car	3.16	3.04	3.11
29. Place work articles and equipment in the car	2.79	2.84	2.81
30. Eat while driving	2.87	2.93	2.89

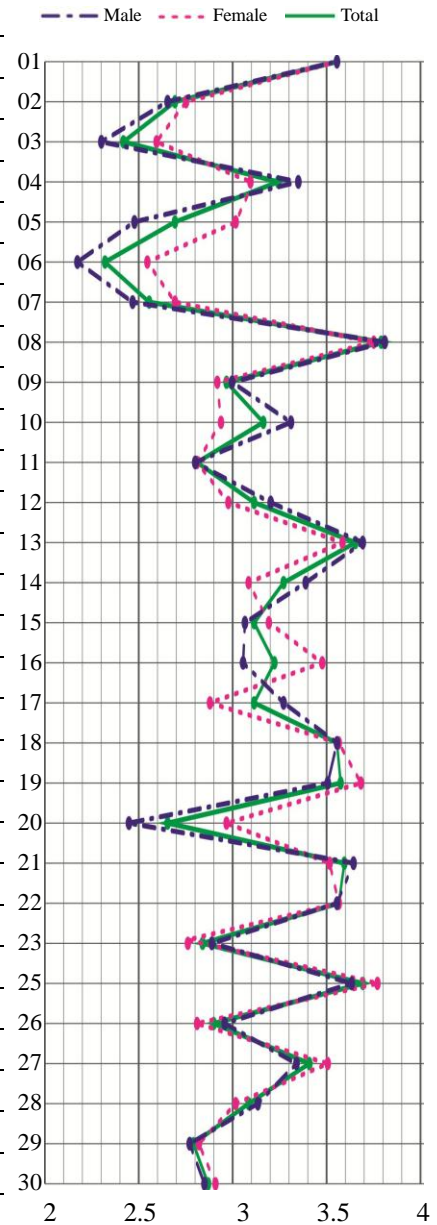


Figure 4. Line chart of car use mode

5.2 Type and Naming of use mode factors

This study conducts factor analysis according to use mode items of part three of the questionnaire. Principal Components Analysis is used to extract factors and Varimax is adopted to rotate factor axis. A total of 7 factors with eigenvalue greater than 1 are obtained and scree plot finally determines 6 factors. Cumulative variance is 61.8%. Names of factors are summarized as below:

1. Law abiding: as per results of items 25, 08 and 01, people of this type are cautious with unfamiliar situation, quite comply with road safety condition and pay close attention to vehicle condition.
2. Careless: items 03, 20 and 02 demonstrate this type is not good at driving and parking and thus sometimes will encounter small trouble.
3. Familiar: items 17, 12 and 10 show that this type is quite familiar with car condition and checks and repairs

the car personally.

4. Comprehensive: according to items 15, 28 and 29, this type has a complete range of inside-car equipment and the car is always in optimal status.
5. Casual: items 30, 23 and 04 reveal: for this type, driving is easy and comfortable like walking.
6. Good-care: as per items 09 and 11, this type takes good care of car even when he/she is not driving.

Use mode averages and type factor analysis show that young groups in Taiwan focus on car body and safe driving. Males and females are significantly different in "confidence in driving" and "ability of emergency response". With regard to use mode factors, most males belong to: 1: law abiding; females belong to: 2: careless.

5.3 Lifestyle factor analysis and naming

Eight factors with eigenvalue greater than 1 are extracted and scree plot shows loadings of six factors tend to be stable. Therefore, these six factors are analyzed in Table 5.

Statistic software SPSS is utilized to conduct factor analysis of young groups' lifestyles and names of the six factors are generalized as below:

1. Pragmatic: like stable work, value brand and after-sale service and love firm and durable products. People of this type like sustainable things and dispose various affairs by systematic means. They like resting at home in holidays, are used to watching TV or surfing the net, care about current events and don't need to always work overtime. It means that they lead a simple and stable life.
2. Knowledge-seeking: work and live regularly; learn new knowledge after work. They don't waste any time and make efforts in doing everything.
3. Impulsive-spending: people of this kind are fond of buying goods with bank card and easily influenced by medium ad when shopping; purchase anything they see and like. Therefore, they often buy unnecessary things and their enthusiasm for new things just lasts for a short period. This demonstrates that they are indecisive in consuming and always impulsively buy unnecessary products as affected by the external.
4. Competent and active: try to repair personally in case of product fault, like outdoor leisure and DIY and don't like to stay at home.
5. Healthy and leisurely: plan to travel abroad and have a habit of exercising regularly; it shows that they like outdoor activities.
6. Busy-with-work: often work overtime and cannot live without cell phone; it's clearly that they don't have leisure time and need to answer the phone for business during holidays.

Through summarizing above six types of lifestyle factors we know young groups in Taiwan are pragmatic and active in knowledge seeking; moreover, with regard to car use mode, it's approved that young people in Taiwan are law-abiding.

6. Conclusions and suggestions

This study adopts individual interview and quantified questionnaire survey to investigate automobile purchase, use mode and lifestyles of 22-45-year-old office workers of different genders in Taiwan. Several conclusions are drawn as the following:

Table 5. Factor analysis of young groups' life style

Content	F1	F2	F3	F4	F5	F6
27.Like stable work	.846	.171	.014	.095	.006	.003
05.Value brand and after-sale service	.808	.379	.088	.098	.019	.096
09.Like firm and durable things	.779	.389	-.067	.128	-.055	.097
01.Calculating carefully when shopping around	.650	.355	-.042	.204	-.002	.104
04.Take advices when purchasing high-price products	.646	.134	-.048	.173	-.052	.007
26.Feel economy is depressed and life is hard	.636	-.304	.071	.120	.014	-.024
16.Like resting at home during holidays	.602	-.115	-.081	-.337	.044	.240
19.Don't need to watch TV and surf the net in daily life	-.564	-.098	-.157	.006	-.029	.069
22.Like watching news and care about current affairs	.548	.176	-.057	.350	.328	.057
25.Good ability of adapting to strange environment	.118	.630	-.076	.239	-.085	.333
12.Work and life are regular	.209	.593	.113	.003	.061	-.357
17.Learn new knowledge after work	.382	.546	-.085	.250	.191	.187
07.Like buying goods with bank card	-.009	.145	.633	.077	-.057	-.007
06.Be influenced by medium ad. when shopping	.334	-.183	.587	-.034	-.011	.171
02.Buy anything you see and like	-.072	-.078	.586	-.112	.103	-.032
03.Buy unnecessary goods due to online or store promotion	-.325	-.485	.541	-.004	.020	.047
10.Like popular and fashionable products	.336	.287	.468	-.069	.090	.173
11.Enthusiasm for new things just lasts for a short period	-.081	-.406	.437	.362	-.290	.166
08.Try to repair by yourself in case of product fault	.237	.106	-.126	.695	.023	.091
15.Like outdoor leisure activities in holidays	.287	.405	.201	.535	.176	.074
18.Plan to travel abroad during holidays	-.014	.108	.139	-.090	.835	.071
21.Have a habit of exercising regularly	.005	-.097	-.115	.473	.689	-.066
13.Be busy with work and often work overtime	-.075	.053	.009	.046	.014	.822
14.Be highly dependent on cell phone	.252	.025	.193	.056	.033	.544
Feature value	4.952	2.404	1.998	1.639	1.476	1.455
Explained variance %	20.6	10.0	8.3	6.8	6.2	6.1
Cumulative variance %	20.6	30.7	39.0	45.8	52.0	58.0
Factor denomination	Pragmatic	Knowledge-seeking	Impulsive-spending	Competent and active	Healthy and leisurely	Busy-with-work

1. Through factor analysis, lifestyles are classified into six types: (1) pragmatic, (2) knowledge-seeking, (3) impulsive spending, (4) competent and active, (5) health and leisurely, (6) busy-with-work. It's found that young groups are stable, use spare time to learn, present enthusiasm for things and affairs interesting for them, and can't live without TV and computer; moreover, they quite value leisure and recreation after busy work. Individual interview and questionnaire survey demonstrate females have a high average in driving for shopping. Therefore, this study infers that most impulsive-spending people are females.
2. As per results of individual interview and questionnaire survey, young groups mostly choose Toyota Corolla Altis and Mitsbishi Lancer when purchasing motor home; most of them select Toyota Wish when purchasing recreational vehicle. Young males and females' common considerations include appearance, cheapness, low fuel consumption, etc. Compared with females, males more value appearance of car.
3. Males and females are not significantly different in main purposes of car: leisure, travel, work, and picking up relatives or children. However, marital status causes differences. For example: taking body shape and parking issue into consideration, single females mostly chose small-scale car; married women depend on husband's driving and they drive mainly for picking up children. Unmarried males seek for sense of speed and comfort of space and thus like to buy car with strong horsepower and large volume. After getting married, men mostly choose recreational vehicle for carrying family members and children.

4. Use modes are divided into following six kinds by factor analysis: (1) law-abiding, (2) careless, (3) familiar, (4) comprehensive, (5) casual, (6) good-care. Young groups quite comply with safety requirement before, during and after driving and also value car maintenance and repair. From line chart of use modes we know that males and females have difference. Females commonly lack confidence and don't possess maintenance knowledge and capability; they are relatively careless; Males have better automobile technology and maintenance knowledge, feel confident in driving, highly depend on car if going out, and are relatively casual.
5. This study investigates economic conditions, job types, living environments, recreational hobbies and lifestyles of young groups, in hope of providing a reference for future automobile design in terms of different-gender young groups' differences.

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