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Classifying Retirement Preparation Planners and Doers: A Multi-Country Study

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Abstract: This study has three principal aims: to classify consumers by their retirement preparation planning and behavior; to examine the financial status of retirement preparation in each country; and to find ways to help consumers effectively secure financial sustainability after retirement by practicing retirement preparation. Adopting the planner–doer model, consumers were classified into four types: 'indifferent,' 'just planner,' 'just doer,' and 'ideal doer.' This study used data collected by Korea Life Insurance Association to compare the level of retirement preparation in Korea, Japan, Germany, the U.S., and the U.K. The data were analyzed using the chi-square test, analysis of variance (ANOVA), and binary logistic regression analysis. The major findings are three-fold: first, the largest percentage of consumers in every country were 'just doers'; second, 'ideal doers' are older than the other types, but have a low expected retirement age and high level of retirement preparedness; and third, 'ideal doers' demonstrated distinct variations in their characteristics in different countries. These findings indicate the need to help consumers recognize the necessity to prepare effectively for financial sustainability in their post-retirement lives; this requires the development of policy and gradual education programs, including effective practical suggestions.

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1. Introduction

As advances in medical science continue to increase average life expectancy, life after retirement grows ever longer [1]. Furthermore, the retirement of baby boomers and low birth rates have drastically increased the elderly proportion of the population. Accordingly, many people are becoming keenly interested in their post-retirement life [2]. To maintain their lifestyle at a similar level after retiring, people need to ensure that they accumulate sufficient savings. This is in line with the concept of financial sustainability and is related to one's ability to maintain the pre-retirement standard of living even after retirement. However, not everyone is saving enough [3]. In the U.S., for example, it is reported that more than half of workers nearing retirement do not have sufficient savings to maintain their current living standards after retirement [4]. Without proper financial preparation for life after retirement, one's life is likely to be negatively affected, which might even include psychological anguish [5–7].

Most people admit that thorough preparation for post-retirement life is essential, particularly regarding finances. For the financial aspects of retirement preparation, the most important concept is planning. Financial planning can be measured by separately considering the financial plan for life after retirement and how much people have saved [8]. This demonstrates that planning involves actual behavior. However, many who recognize the need to be financially prepared for retired life do not take any real action. In other words, there is a gap between understanding the need to prepare and making

specific decisions to achieve this [9,10]. Awareness of the need to financially prepare for retirement is a normative preference, while actually preparing through financial savings and investment is a revealed preference; there is clearly a difference between these two types of preference [11]. To explain the difference between normative and revealed preferences in terms of behavioral economics, Thaler and Shefrin [12] distinguish a planner with a long-term perspective and a short-sighted doer. The planner–doer model focuses on decisions regarding retirement preparation. Prior research has often focused on normative preferences regarding the level of savings required for post-retirement, but few studies have focused on revealed preferences as practical actions. Furthermore, although the theoretical framework is well developed, as conflict between the two preferences explains the intertemporal choice in behavioral economics [13], there are few relevant studies using empirical data.

Therefore, this study aims to elucidate the major factors in preparing for life after retirement in a more complicated environment, using empirical data to elaborate the planner–doer model. Data collected through a survey of 5000 people by Korea Life Insurance Association are used to compare the level of retirement preparation in Korea, Japan, Germany, the U.S., and the U.K. The sample is sufficiently large to draw inter-country comparisons. This study also examines the reasons for people failing to plan or act based on the planner–doer model. Identifying inter-country differences in decision-making on retirement preparation reveals specific problems in the process. In particular, by recognizing these differences, this study's findings are expected to be utilized to discover ways of inducing people to better prepare for their post-retirement life. It will also help promote household well-being and financial sustainability. There are two specific research questions:

1. In the process of retirement preparation, how are consumer types classified according to planning and behavior, and what are the differences among countries?
2. What factors determine consumer types in the process of retirement preparation, and what are the differences among countries?

The rest of this article is organized as follows. Section 2 reviews the literature on retirement preparation and the planner–doer model. The study's methods are then described in Section 3. Section 4 reports analysis of the different characteristics of planner–doer types and the determinants of each type. Section 5 then discusses the study's findings and implications, followed finally by the limitations and future directions in Section 6.

2. Literature Review

2.1. Retirement Preparation

Since the baby boomer generation began to reach retirement, the number of studies on how individuals prepare for retirement has drastically increased [14]. The content of such research has also changed markedly. People no longer passively perceive retirement as the period immediately prior to death, and are actively preparing to retire. According to McCormack et al. [15], elderly women—who have a relatively longer life expectancy than men—perceive retirement as a period of social interaction with their community, rather than a time of inactivity. Diverse ideas about post-retirement life raise the importance of planning and preparing for retirement to unprecedented levels. According to Friedman and Scholnick [16], people preparing for retirement follow sequential steps of understanding expected problems, setting goals, making plans, and putting them into practice. To be effective, plans should take into consideration many variables, including environmental factors (such as social support), cognitive characteristics, personal characteristics, motivation, etc. [14]. Although making plans is of great importance, excessive emphasis on planning results in rather adverse effects [17]: vital planning ahead needs to lead to practical behavior.

Most relevant studies focus on the financial conditions of people nearing retirement. Specifically, the main subjects are the level of assets that need to be secured for post-retirement life and the current level of financial preparation among soon-to-be retirees [18]. This is also in line with the aforementioned

relationship between the normative and revealed preferences. Research findings on the scale and status of secured retirement savings differ significantly between studies of different research objects and data. In the study of Butrica et al. [19], 65% of retirees, 56% of respondents nearing retirement, 55% of the early baby boomer generation, and 56% of the later baby boomer generation had secured at least 75% of their average total life earnings (aged 22–62) for their post-retirement life. Similarly, Scholz et al. [20] found that approximately 80% of U.S. households had close-to-ideal levels of preparedness for their post-retirement life. However, other studies have shown far greater incidence of insufficient retirement savings. As life expectancy and, therefore, also the post-retirement period increasingly lengthen, it has been estimated that less than half of retiree households in the U.S. have secured sufficient retirement savings [21]. According to Rhee [22], approximately 90% of households in the U.S. failed to secure sufficient assets in comparison with DB (defined benefit) pension assets. Moreover, based on the total amount of assets and on net assets, approximately 84% and 65% of households, respectively, had not secured sufficient assets in preparation for post-retirement life. Follow-up research reported similar results [23]. This study seeks to analyze retirement preparation by classifying consumers according to their plans and behavior, based on the contradictory prior research results.

2.2. Planner–Doer Model

In traditional economics, human rationality and egoism are supposed to be fundamental elements. It is, therefore, assumed that individuals have the perceptive ability to maximize effects through appropriate allotment of resources and to solve optimization problems by making and practicing optimal choices [24]. However, only an extremely small number of people devote time and cost to decision-making in uncertain and changing circumstances in order to reach logical decisions; the vast majority, by contrast, make heuristic decisions. Although heuristics are a helpful tool for making choices, they often hinder people from making correct judgments [25].

Research on heuristics and behavioral economics explains human behavior from different perspectives to those of traditional economic models, which assume human rationality. One representative theory to explain the causes of such frequent heuristics and bias in practical decision-making processes is the dual-process theory [26]. This is based on the assumption that the human brain is divided into an area for intuitive thinking and an area for logical thinking. This theory also permits the assumption that humans distinguish the present self from the future self [27]. In other words, the self can be divided into two parts based on the difference between human perception and actual behavior. Originally conceived by Thaler and Shefrin [12], the planner–doer model is largely consistent with the dual-process theory. The planner–doer model views an individual as one organization comprising a planner and a doer, and explains that the preferences of each conflict over time. For instance, the planner is interested in lifetime profits, whereas the doer tends to pursue relatively short-term profits. Because retirement saving is based on the intertemporal choice model, consumers' changing preferences over time, or time discounting, is a major factor. Accordingly, the planner–doer model is expected to be relatively effective in explaining a series of human behaviors related to retirement saving [28].

3. Methodology

3.1. Classification of Consumer Types

In this study, consumers are classified by their planning and behavior in the process of retirement preparation, and dependent variables are determined accordingly. Respondents were first asked if they had ever calculated the amount of funds they would need after retirement ('yes' or 'no'). Their answers determined whether they were treated as having made plans for retirement preparation. Respondents were also asked about the average amount they saved monthly in preparation for retirement. Their responses were used to measure the extent of their retirement preparation. Consumers who saved

nothing for retirement were distinguished from other respondents. Using their responses to these two questions, consumers were classified into four types, as presented in Figure 1.

Classification		Monthly saving for retirement preparation	
		No	Yes
Calculation of funds necessary after retirement	No	① Indifferent	③ Just doer
	Yes	② Just planner	④ Ideal doer

Figure 1. Consumer types based on planning and behavior for retirement preparation.

'Indifferent' consumers are those who have neither planned for nor taken any actions toward retirement preparation. This type of consumer lacks awareness of the necessity of financial preparation for retirement, and is consequently at serious risk. In contrast, 'ideal doer' consumers plan and act in advance to prepare for their retirement, and are exemplary in this regard. The other two types have conflicts in preferences between planning and action over time, according to the planner–doer model. 'just planner' consumers plan ahead for retirement preparation, but take no action pursuant to their plans; by contrast, 'just doer' consumers do not plan ahead for retirement preparation, but they do prepare financially for life after retirement. The 'just planner' type is well aware of the necessity of retirement preparation, but does not actively prepare for life after retirement. In this regard, this type is the second least prepared after the 'indifferent' type. The 'just doer' type undertakes retirement preparation but with no effective planning. Hence, these consumers are unlikely to prepare sufficiently for their post-retirement lives, which is a clear issue requiring improvement. Since this study focuses on whether a consumer plans ahead for retirement preparation and acts according to their plans, it is necessary to clarify specific differences between the 'ideal doer' type and the other three types. In particular, this study seeks to distinguish the 'just planner' and 'just doer' from the 'ideal doer' in order to address conflicts that may result from discrepancy between planning and behavior regarding retirement preparation. Its findings should help consumers to prepare financially for post-retirement life more effectively.

3.2. Data Collection

This study uses data from the Korea Life Insurance Association's recent comparative study of old-age preparation levels [29]. The Korea Life Insurance Association allowed us to use the data for academic purposes in this study. An online survey was conducted by Embrain (Korea's leading online research company) among economically productive individuals in their 20s to 50s, with 1000 respondents surveyed from each of Korea, Japan, Germany, the U.S., and the U.K. The survey instrument was translated into the main language of each country, and data were collected from 16 July to 10 August 2017. Quota sampling based on the age and gender ratios in each country's demographics ensured that the samples were representative. The minimum age was 20 years old, and the maximum was 59 years old. These figures were the same across countries. Details of the quota sampling are shown in Table 1. With 5000 cases collected, data cleaning was conducted to remove insincere respondents and extreme values in order to secure reliable and generalizable survey results. For data cleaning, the secured financial assets and average amount saved per month in each country were checked; data for each item that exceeded a certain limit were removed. Of the 5000 cases, 4581 were ultimately used in the analysis (Korea: 949, Japan: 909, Germany: 973, U.S.: 859, U.K.: 891).

Table 1. Quota sampling (N = 5000).

Country	Gender	Age				Total
		20s	30s	40s	50s	
Korea	male	113	121	141	137	512
	female	103	115	136	134	488
	total	216	236	277	371	1000
Japan	male	104	125	151	126	506
	female	100	120	148	126	484
	total	204	245	299	252	1000
Germany	male	107	119	123	156	505
	female	104	116	122	153	495
	total	211	235	245	309	1000
U.S.	male	135	125	118	127	505
	female	127	122	117	129	495
	total	262	247	235	256	1000
U.K.	male	125	124	123	127	499
	female	121	123	126	131	501
	total	246	247	249	258	1000

3.3. Model and Variables

The study's logistic regression model is as follows.

$$\text{logit}\left(P_{ij}\right) = \ln\left(\frac{P_{ij}}{1 - P_{ij}}\right) = \alpha_{ij} + \sum \beta_{kij} \cdot X_{kj}, \tag{1}$$

where *P* is the probability of the outcome, and the outcome is the 'ideal doer' type (P_i = the probability of being an 'ideal doer'). The logistic regression was repeated twice with the 'indifferent' type and 'just doer' type as the respective reference variables. *j* refers to country difference, with 1 = Korea, 2 = Japan, 3 = Germany, 4 = U.S., and 5 = U.K. α is the intercept term and β_k is the vector of coefficients associated with each explanatory variable X_k. In this study, *k* ranged between 1 and 13, with the definitions for each *X*-variable used in the logistic regression model presented in Table 2.

As detailed in Table 2, this study uses respondents' general characteristics and other characteristics related to retirement preparation as independent variables. Respondents' general characteristics include their education level, marital status, and whether they have children, as well as demographics such as age and gender. Regarding retirement preparation, respondents were asked at what age they expected to retire and to indicate both their current level of life satisfaction and their expected happiness after retirement, measured using 5-point Likert scales. To examine consumers' psychological aspects more specifically, their attitude toward retirement was also measured using a 5-point Likert scale. Finally, to focus on the financial characteristics of retirement preparation, open questions were posed regarding respondents' current level of retirement preparation, current monthly income, and expected living costs after retirement. After first converting amounts into U.S. dollars (except for those collected in the U.S.), the monthly income and expected living costs after retirement were converted to log values because the actual values were too large to compare. The descriptive statistics of the variables are reported in Table 3.

Table 2. Definitions of variables used in logistic regression.

	Variable		Definition
X_1	Present age		Respondent's age (years)
X_2	Expected retirement age		Respondent's estimated retirement age (years)
X_3	Male		Value 1 if the respondent is male; 0 otherwise
X_4	Edu-cation	High school	Value 1 if the respondent graduated high school or lower; 0 otherwise
X_5		Master's and above	Value 1 if the respondent has a master's degree or higher; 0 otherwise
X_6	Marital status		Value 1 if the respondent is married; 0 otherwise
X_7	Child		Value 1 if the respondent has one or more children; 0 otherwise
X_8	Current life satisfaction		Degree of respondent's life satisfaction (5-point Likert scale: from 1 = strongly dissatisfied to 5 = strongly satisfied)
X_9	Expected happiness in retirement		Degree of respondent's expected happiness after retiring (5-point Likert scale: from 1 = strongly unhappy to 5 = strongly happy)
X_{10}	Attitude toward retirement		Degree of respondent's positive attitude toward retirement, measured through four questions (5-point Likert scale: from 1 = strongly disagree to 5 = strongly agree)
X_{11}	Current level of financial retirement preparation		How long respondent can survive on their retirement wealth (years)
X_{12}	Log_monthly income (USD)		Amount of monthly income
X_{13}	Log_expected living expenses (USD)		Amount of expected monthly living expenses after retirement

Table 3. Descriptive statistics of sample characteristics (N = 4581).

Classification		Korea (N = 949)		Japan (N = 909)		Germany (N = 973)		U.S. (N = 859)		U.K. (N = 891)	
		N (%)	Mean	N (%)	Mean	N (%)	Mean	N (%)	Mean	N (%)	Mean
Present Age			40.46		40.81		41.21		39.70		40.33
Gender	Male	485 (51.1)		462 (50.8)		489 (50.3)		420 (48.9)		437 (49.0)	
	Female	464 (48.9)		447 (49.2)		484 (49.7)		439 (51.1)		454 (51.0)	
Education	High school	182 (19.2)		354 (38.9)		695 (71.4)		376 (43.8)		436 (48.9)	
	Bachelor degree	679 (71.5)		508 (55.9)		101 (10.4)		374 (43.5)		341 (38.3)	
	Master's degree and above	88 (9.3)		47 (5.2)		177 (18.2)		109 (12.7)		114 (12.8)	
Marital status	Single	391 (41.2)		484 (53.2)		473 (48.6)		397 (46.2)		433 (48.6)	
	Married	558 (58.8)		425 (46.8)		500 (51.4)		462 (53.8)		458 (51.4)	
Child	Have no children	432 (45.5)		564 (62.0)		555 (57.0)		445 (51.8)		498 (55.9)	
	Have one or more children	517 (54.5)		345 (38.0)		418 (43.0)		414 (48.2)		393 (44.1)	
Expected retirement age			62.51		65.24		64.29		65.46		65.67
Current life satisfaction			3.31		3.31		3.68		3.76		3.56
Expected happiness in retirement			3.33		3.06		3.62		3.90		3.66
Attitude toward retirement			3.26		3.35		3.76		3.62		3.58
Current level of financial retirement preparation			36.55		39.11		38.40		36.83		37.84
Log_monthly income (USD)			3.43		3.64		3.45		3.49		3.43
Log_expected living expenses (USD)			3.22		3.29		3.16		3.30		3.17

3.4. Data Analysis

Consumer types were classified according to their plans and behaviors regarding retirement preparation. Chi-square values were then used to identify any differences in the consumer-type ratios for each country. Next, binary logistic regression analysis was conducted to determine which factors were determinative of consumer type. In this study, we compared the 'ideal doer' type with other consumer types by differentiating the criteria of the dependent variables when conducting the binary logistic regression, and better examined the factors influencing the fulfillment of the retirement preparation process. In addition, a chi-square test and analysis of variance (ANOVA) were conducted when it was difficult to examine the results of regression analysis due to an insufficient number of respondents. Differences between consumer types were examined based on the results of these two analyses.

4. Results

4.1. Differences between Countries in the Consumer Type Ratio

The four consumer types were examined comparatively for each country. The results of the chi-square test are shown in Table 4. Considering all five countries together, the 'just doer' type accounted for the largest portion (46%), followed by 'indifferent' (25%), 'ideal doer' (24%), and 'just planner' (5%). Although it was encouraging to find comparatively few of the 'just planner' type, the proportion of the 'indifferent' type was worryingly high. The fact that 'just doer' was the largest group indicates that consumers need to complement their current retirement preparations to ensure they are effective. In general, the proportion of each consumer type was similar between the countries, but some statistically significant differences were noted.

Table 4. The consumer type ratio in each country.

Consumer Type	N (%)					
	Total	Korea	Japan	Germany	U.S.	U.K.
Indifferent	1151 (25.1)	198 (20.9)	195 (21.5)	223 (22.9)	217 (25.3)	318 (35.7)
Just planner	205 (4.5)	36 (3.8)	31 (3.4)	33 (3.4)	54 (6.3)	51 (5.7)
Just doer	2124 (46.4)	459 (48.4)	461 (50.7)	448 (46.0)	366 (42.6)	390 (43.8)
Ideal doer	1101 (24.0)	256 (27.0)	222 (24.4)	269 (27.6)	222 (25.8)	132 (14.8)
X^2	118.354 ***	10.137 *	9.270 *	8.042 *	8.196 *	62.728 ***

* $p < 0.05$, *** $p < 0.001$. The chi-square value in the Total column is the result of the chi-square test of all countries and consumer types, and the chi-square value for each country is the result of the chi-square test of that country and the total column.

The combined proportion of the 'just doer' and 'ideal doer' types was higher in Korea, Japan, and Germany than in the other countries, which indicates that the percentage of consumers practicing financial preparation for post-retirement life was quite high. Japan has the highest proportion of the 'just doer' type (50.7%) and Germany the highest proportion of the 'ideal doer' type (27.6%). However, the U.S. and the U.K. exhibited somewhat different tendencies from those of the other three countries. The U.S. had the highest proportion of the 'just planner' type (planning but no practical retirement preparation) at 6.3%, which was almost double those of Japan and Germany. The U.K. showed the most distinctive differences from the other countries, with a far higher proportion of 'indifferent' type (35.7%) and a far lower proportion of 'ideal doer' type (14.8%). These findings indicate that the U.K. had the lowest proportion of consumers practicing retirement preparation among the five studied countries.

4.2. Comparison of Factors Affecting Consumer Types in Each Country

Binary logistic regression was used to explore how the difference between the 'ideal doer' type and the other three types differed between countries. However, the small number of cases of the 'just

planner' type (which ranged from 31 to 54) resulted in statistical limitations in terms of analyzing the regression analysis results. Therefore, we examined the differences between the 'just planner' type and the 'ideal doer' type through a chi-square test and ANOVA, instead of regression analysis.

4.2.1. 'Indifferent' and 'Ideal Doer'

As reported in Table 5, the results revealed common characteristics distinguishing the 'ideal doer' type from the 'indifferent' type in all five countries. 'Ideal doer' type consumers were generally older than 'indifferent' type consumers, but the former's expected retirement age was comparatively low. The level of financial preparation for retirement was also higher among 'ideal doer' type than 'indifferent' type consumers. Turning to specific factors related to differences in each country, Korea was the only country with no difference in gender between the two types; in the other four countries, men were more likely to be 'ideal doer' type consumers than were women. In the U.S. and the U.K., in particular, men were almost three times more likely than women to be of the 'ideal doer' type. In every country except Korea, consumers with a more positive expectation of post-retirement life were around 1.5 times more likely to be classified as 'ideal doer' than as 'indifferent.' In the U.S., those with a spouse were more than twice as likely to be classified as 'ideal doer' than were single respondents. Regarding education level, Japan and the U.S. showed a different tendency from the other three countries: consumers with a relatively low education level were more likely to be classified as 'indifferent' than 'ideal doer.' While Germany tended to be similar to Japan and the U.S., there was no statistically significant difference. Additionally, when the level of expected living expenses was high, the likelihood of being classified as 'ideal doer' was higher than that of an 'indifferent' classification. The same relationship was found in Korea. Strikingly, in Japan, the likelihood of being the 'ideal doer' type was approximately 32 times that of being the 'indifferent' type when expected living expenses were high. Thus, it can be assumed that, compared to the other four countries, more efforts are required in Japan to cover the cost of living after retirement.

Table 5. Comparison of the characteristics of 'indifferent' and 'ideal doer' types in each country (reference variable: 'indifferent' type).

Classification		Korea		Japan		Germany		U.S.		U.K.	
		b	Exp (β)	b	Exp (β)	b	Exp (β)	b	Exp (β)	b	Exp (β)
Constant term		−11.763 ***		−12.970 ***		−7.915 **		−3.191		−6.558 *	
Present age		0.171 ***	1.186	0.147 ***	1.158	0.082 ***	1.085	0.092 ***	1.096	0.077 ***	1.080
Expected retirement age		−0.119 ***	0.888	−0.181 ***	0.835	−0.082 **	0.921	−0.159 ***	0.853	−0.115 ***	0.891
Gender (*female = 0*)	Male	−0.174	0.840	0.656 *	1.928	0.499 *	1.647	0.981 **	2.668	0.971 **	2.640
Education level (*bachelor degree = 0*)	High school	0.056	1.058	−0.965 **	0.381	−0.712	0.491	−1.188 ***	0.305	0.038	1.039
	Master's and above	−0.233	0.792	−0.147	0.863	−0.495	0.610	−0.466	0.627	−0.021	0.979
Marital status (*single = 0*)	Married	0.086	1.090	−0.259	0.772	0.103	1.108	0.857 *	2.355	0.223	1.250
Children (*no = 0*)	One or more	−0.526	0.591	0.316	1.371	−0.434	0.648	−0.330	0.719	−0.103	0.902
Satisfaction with present life		0.300	1.350	−0.033	0.968	0.080	1.084	0.334	1.397	0.285	1.330
Expected happiness in retirement		0.052	1.053	0.438 *	1.549	0.409 **	1.505	0.524 *	1.689	0.420 *	1.522
Attitude towards retirement		0.200	1.222	0.108	1.114	−0.483 *	0.617	−0.438	0.646	−0.414	0.661
Current level of financial retirement preparation		0.119 ***	1.126	0.181 ***	1.198	0.046 ***	1.047	0.123 ***	1.130	0.110 ***	1.116
Log_monthly incomes (*USD*)		0.638	1.893	−0.342	0.710	2.010 ***	7.461	0.022	1.022	0.467	1.595
Log_expected living expenses (*USD*)		1.501 *	4.485	3.469 ***	32.089	0.555	1.742	0.865 *	2.375	0.898	2.455
X^2		220.170 ***		250.646 ***		164.889 ***		264.142 ***		196.166 ***	
Nagelkerke R^2		0.515		0.603		0.381		0.603		0.503	
Classification accuracy		78.4%		83.5%		73.6%		82.2%		81.6%	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

4.2.2. 'Just Planner' and 'Ideal Doer'

The differences in characteristics between the two groups with different behavior tendencies—'just planner' and 'ideal doer'—were examined for each country (see Table 6). In all five countries the level of financial preparation for retirement was far higher among 'ideal doer' than 'just planner' consumers. In Germany, the U.S., and the U.K., but not in Korea and Japan, a distinctive difference by gender was found. In all three countries, men were more likely than women to be 'ideal doer' rather than 'just planner' consumers. In the U.S., the likelihood of being an 'ideal doer' was relatively high among married respondents, as in the above comparison between the 'indifferent' type and 'ideal doer' type. In the U.K. only, the current age of 'ideal doer' consumers was lower than that of 'just planner' consumers to a statistically significant degree. This implies that, in the U.K., relatively young consumers are more likely to take action to prepare for their post-retirement life, rather than merely planning. There is a common tendency for 'ideal doer' type consumers to have higher levels of current life satisfaction and expected happiness in retirement than 'just planner' type consumers. However, statistically significant differences were only found in Korea and Germany. Korea and Germany both also showed a statistically significant higher monthly income level among 'ideal doer' consumers than among 'just planner' consumers. This result indicates, compared to the other three countries, the monthly income levels in Korea and Germany were higher among consumers planning and taking action for their post-retirement life than among those merely planning, and that, from a psychological perspective, the former more positively evaluated both their present life and anticipated post-retirement life. However, since regression analysis was not performed here, caution must be exercised in interpreting causality between psychological variables and consumer types.

4.2.3. 'Just Doer' and 'Ideal Doer'

Finally, the differences in characteristics between the 'just doer' and 'ideal doer' types, distinguished by whether they planned ahead, were examined for each country (see Table 7). The result of this analysis indicates that, in general, some commonalities were found between the countries while some characteristics varied distinctly in different countries. While the current age of the 'ideal doer' type was higher than that of the 'just doer' type, the expected retirement age of the former was relatively low. In other words, the 'ideal doer' type reported a shorter temporal distance to retirement.

Men were almost twice as likely as women to belong to the 'ideal doer' type in the U.S. and the U.K. Also in the U.S., consumers with a relatively low level of education were more likely to be 'just doer' than 'ideal doer' consumers, while a more positive expectation of post-retirement happiness was about twice as likely among 'ideal doer' consumers as among 'just doer' consumers. In Japan, a more positive attitude toward retirement was associated with a relatively high likelihood of being an 'ideal doer' consumer. However, the opposite was found in the U.S., with a positive attitude toward retirement associated with a higher likelihood of being a 'just doer' type. Since this tendency in the U.S. data conflicted with the aforementioned analysis results, it is viewed as an outlier tendency. In every country except Germany, a high level of financial preparation was associated with a higher likelihood of being an 'ideal doer' than a 'just doer' consumer. This result indicates that planning ahead and practicing saving or investment is a more efficient way to prepare for retirement than saving or investing without a plan. In all countries except the U.K., a high level of expected living expenses was associated with a higher likelihood of being an 'ideal doer' than a 'just doer' consumer, by a magnitude of around two in the U.S., three in Germany, four in Japan, and seven in Korea. In other words, consumers with high expected living expenses were likely to make plans and act accordingly, rather than merely preparing with no particular plan in mind for post-retirement life.

Table 6. Comparison of general characteristics and retirement preparation characteristics between 'just planner' and 'ideal doer' types in each country.

Classification		Korea			Japan			Germany			U.S.			U.K.		
		Just Planner	Ideal Doer	X^2/t	Just Planner	Ideal Doer	X^2/t	Just Planner	Ideal Doer	X^2/t	Just Planner	Ideal Doer	X^2/t	Just Planner	Ideal Doer	X^2/t
Present age *mean (SD)*		44.19 (10.38)	44.19 (9.78)	0.004	42.65 (10.78)	41.85 (10.55)	0.391	45.91 (11.00)	44.06 (10.45)	0.954	41.70 (11.90)	39.78 (11.36)	1.106	47.57 (9.08)	41.20 (11.44)	3.945 ***
Expected retirement age *mean (SD)*		62.53 (6.44)	61.75 (6.57)	0.670	64.19 (7.19)	64.27 (7.26)	−0.052	64.12 (6.23)	63.61 (4.91)	0.548	64.72 (9.43)	63.71 (7.03)	0.886	65.29 (7.52)	63.89 (7.03)	1.191
Gender (N (%))	Male	22 (61.1)	121 (47.3)	2.421	14 (45.2)	125 (56.3)	1.365	10 (30.3)	161 (59.9)	10.449 **	23 (42.6)	138 (62.2)	6.844 **	21 (41.2)	86 (65.2)	8.708 **
	Female	14 (38.9)	135 (52.7)		17 (54.8)	97 (43.7)		23 (69.7)	108 (40.1)		31 (57.4)	84 (37.8)		30 (58.8)	46 (34.8)	
Education level (N (%))	High school	8 (22.2)	41 (16.0)	0.974	14 (45.2)	55 (24.8)	5.762	26 (78.8)	169 (62.8)	3.938	22 (40.7)	59 (26.6)	4.212	23 (45.1)	53 (40.2)	1.756
	Bachelor degree	2 (66.7)	189 (73.8)		16 (51.6)	154 (69.4)		1 (3.0)	33 (12.3)		25 (46.3)	126 (56.8)		16 (31.4)	55 (41.7)	
	Master's and above	4 (11.1)	26 (10.2)		1 (3.2)	13 (5.9)		6 (18.2)	67 (24.9)		7 (13.0)	37 (16.7)		12 (23.5)	24 (18.2)	
Marital status (N (%))	Single	13 (36.1)	66 (25.8)	1.707	13 (41.9)	95 (42.8)	0.008	15 (45.5)	111 (41.3)	0.212	26 (48.1)	76 (34.2)	3.609 *	22 (43.1)	57 (43.2)	0.000
	Married	23 (63.9)	190 (74.2)		18 (58.1)	127 (57.2)		18 (54.5)	158 (58.7)		28 (51.9)	146 (65.8)		29 (56.9)	75 (56.8)	
Children (N (%))	No	2 (7.7)	21 (10.7)	0.219	7 (35.0)	32 (23.0)	1.355	3 (14.3)	48 (27.4)	1.682	4 (12.1)	37 (23.3)	2.023	8 (20.5)	26 (30.2)	1.280
	One or more	24 (92.3)	176 (89.3)		13 (65.0)	107 (77.0)		18 (85.7)	127 (72.6)		29 (87.9)	122 (76.7)		31 (79.5)	60 (69.8)	
Current life satisfaction *mean (SD)*		2.89 (0.89)	3.60 (0.83)	−4.735 ***	3.35 (0.95)	3.54 (0.85)	−1.091	3.42 (0.83)	3.81 (0.75)	−2.754 **	3.80 (1.00)	3.95 (0.83)	−1.050	3.65 (0.89)	3.83 (0.86)	−1.303
Expected happiness in retirement *mean (SD)*		3.06 (0.98)	3.58 (0.90)	−3.225 **	3.03 (1.08)	3.32 (0.86)	−1.717	3.36 (0.96)	3.79 (0.87)	−2.625 **	3.93 (1.01)	4.16 (0.77)	−1.584	3.69 (1.05)	3.99 (0.78)	−1.894
Attitude toward retirement *mean (SD)*		3.11 (0.69)	3.34 (0.55)	−1.906	3.42 (0.59)	3.50 (0.56)	−0.700	3.69 (0.60)	3.81 (0.63)	−1.049	3.73 (0.65)	3.56 (0.62)	1.722	3.80 (0.71)	3.61 (0.60)	1.814
Current level of financial retirement preparation *mean (SD)*		28.46 (13.88)	37.96 (15.28)	−3.532 ***	30.75 (12.10)	42.37 (13.48)	−4.548 ***	27.87 (13.11)	37.67 (15.40)	−3.503 **	32.79 (15.25)	42.54 (15.34)	−4.194 ***	32.83 (14.41)	44.84 (14.16)	−5.120 ***
Log_monthly income (USD) *mean (SD)*		3.44 (0.34)	3.55 (0.27)	−2.270 *	3.68 (0.39)	3.71 (0.37)	−0.362	3.16 (1.08)	3.56 (0.26)	−2.096 *	3.55 (0.54)	3.62 (0.50)	−0.809	3.50 (0.40)	3.54 (0.40)	−0.516
Log_expected living expenses (USD) *mean (SD)*		3.30 (0.16)	3.28 (0.20)	0.540	3.27 (0.19)	3.34 (0.21)	−1.935	3.18 (0.21)	3.23 (0.25)	−1.094	3.35 (0.32)	3.35 (0.42)	−0.030	3.13 (0.38)	3.21 (0.34)	−1.344

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 7. Comparison of factors affecting the 'just doer' and 'ideal doer' types in each country (reference variable: 'just doer' type).

Classification		Korea		Japan		Germany		U.S.		U.K.	
		b	Exp (β)	b	Exp (β)	b	Exp (β)	b	Exp (β)	b	Exp (β)
Constant term		−10.718 ***		−8.347 ***		−3.397		−3.568 *		−3.204	
Present age		0.059 ***	1.061	0.029 *	1.029	0.047 ***	1.048	0.047 ***	1.048	0.047 ***	1.048
Expected retirement age		−0.042 **	0.959	−0.039 **	0.962	−0.050 *	0.952	−0.059 ***	0.943	−0.045 *	0.956
Gender (*female = 0*)	Male	−0.124	0.883	0.292	1.339	0.257	1.293	0.546 **	1.726	0.626 **	1.870
Education level (*bachelor degree = 0*)	High school	−0.020	0.980	−0.400	0.670	−0.324	0.723	−0.628 **	0.534	0.049	1.050
	Master's and above	−0.058	0.944	−0.444	0.642	−0.010	0.990	−0.018	0.982	0.438	1.550
Marital status (*single = 0*)	Married	−0.298	0.743	−0.088	0.916	0.234	1.263	0.215	1.240	−0.041	0.960
Child (*no = 0*)	One or more	0.090	1.094	0.377	1.458	−0.277	0.758	0.132	1.141	−0.028	0.972
Current life satisfaction		0.224	1.251	0.027	1.028	0.139	1.149	−0.069	0.934	0.128	1.137
Expected happiness in retirement		−0.010	0.990	0.029	1.030	0.026	1.027	0.487 **	1.627	0.282	1.326
Attitude toward retirement		0.140	1.151	0.431 *	1.539	−0.001	0.999	−0.405 *	0.667	−0.046	0.955
Current level of financial retirement preparation		0.026 **	1.026	0.035 ***	1.035	0.008	1.008	0.055 ***	1.057	0.034 ***	1.035
Log_monthly income (*USD*)		0.616	1.852	0.291	1.337	−0.084	0.920	−0.144	0.866	−0.091	0.913
Log_expected living expenses (*USD*)		1.916 ***	6.795	1.368 **	3.927	1.044 **	2.840	0.821 **	2.273	0.179	1.196
X^2		92.428 ***		94.464 ***		67.851 ***		116.796 ***		63.330 ***	
Nagelkerke R^2		0.166		0.180		0.123		0.245		0.169	
Classification accuracy		69.5%		72.0%		66.4%		70.4%		75.7%	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

5. Discussion and Implications

Few would contest that sufficient financial preparation for retirement is necessary. However, it is rare to find consumers who have actually prepared commensurately with the recognized necessity. This study classifies and examines consumer types based on their planning and behavior for financial retirement preparation, using the frame of the planner–doer model. Different characteristics between the types were verified in this study, enabling suggestions for ways to help consumers effectively prepare for post-retirement life. In particular, we found that consumers should expect to be provided with specific implications of policy and education program in order to ensure financial sustainability through appropriate preparation for retirement. The study's principal findings are as follows.

First, the largest group of consumers were in the 'just doer' category, who practice saving and investment for retirement with no particular plan. The positive aspect to this finding is that many consumers are at least preparing for retirement. However, without planning, many consumers may not prepare to a sufficient level. We found some inter-country differences in the proportions of each consumer type. The U.K. was particularly distinctive in this regard, with approximately 36% of consumers of the 'indifferent' type and only approximately 15% of the 'ideal doer' type. Second, across all five countries, 'ideal doers'—who practiced both planning and behavior for retirement preparation—were generally found to be older than the other consumer types except for the 'just planner' type, but their expected retirement age was relatively low and their level of financial preparation for retirement was relatively high at the time of the survey. These results suggest that consumers who are relatively close to retirement are more likely to belong to the 'ideal doer' type. In fact, the age difference by type is about 3–5 years, and it is possible to interpret the relative difference in age among types; however, it is necessary to pay attention to interpretation because the absolute difference in age among types is not so large. Third, 'ideal doers' showed distinct differences in certain characteristics compared to other types in particular countries. In the comparison between 'indifferent' types and 'ideal doer' types, gender and expected happiness in retirement differed between the two types in every country except Korea, while the likelihood of being an 'ideal doer' was relatively high among respondents with a high level of education in Japan and the U.S. In Japan, the U.S., and Korea, the higher the level of living expenses expected after retirement, the greater the likelihood of being in the 'ideal doer' type. In the comparison between 'just planner' types and 'ideal doer' types, there is a tendency for 'ideal doer' types to have a higher level of monthly income and more positively evaluate both their current life satisfaction and expected happiness in retirement compared to 'just planner' types. Statistical differences were significant only in Korea and Germany. Finally, in the comparison between 'just doer' types and 'ideal doer' types, U.S. consumers with a relatively low level of education were more likely to be 'just doer' consumers, whereas those with a positive expectation of happiness in retirement were more likely to be 'ideal doer' consumers. In every country except the U.K., a high level of expected living expenses after retirement was associated with a higher likelihood of being an 'ideal doer' consumer. These results suggest that consumers are more inclined to formulate plans and act on them in preparation for anticipated risks.

This study's findings imply that to help consumers prepare to be financially sustainable in their post-retirement lives it is necessary to develop basic policy and educational measures to improve attitudes toward planning and practicing for retirement. The policy approach is needed for people to ensure financial sustainability after retirement. First, consumers should be encouraged to make better choices by acquiring accurate information that is easy to understand. In addition, it is necessary to secure the social safety net to provide fundamental economic sustenance after retirement. Above all, consumers close to retirement age have to be able to provide a compulsory and accurate explanation when subscribing to financial products. Consumers tend to be more or less ready to retire later—e.g., many plan or act after retirement is close. Also, given the fact that many consumers act without planning, consumers need to be provided with accurate information in advance. Particular effort should be invested in creating a policy framework and improving accessibility in order to maximize the number of people who benefit. Second, welfare policies—e.g., a guaranteed public pension—are

needed to guarantee the economic stability of the elderly after retirement. In fact, given the fact that people do not plan well after retirement and there are not many ideal doers who plan and act altogether, it is likely that people will be in a particularly weak economic state after retirement. Therefore, it is necessary to establish a policy that can provide the financial sustainability of people at the lowest level.

In addition, with a policy approach that enables financial sustainability to be secured, it is necessary to strengthen consumer capacity through appropriate education programs so that people can prepare well after retirement. Many respondents were indifferent to retirement preparation, while half of the rest appeared to act without planning. In addition, 'ideal doer' types tended to have comparatively less time until their planned retirement age and to have accumulated comparatively more financial resources in preparation for retirement. Hence, it is necessary to help consumers recognize the necessity of effective preparation for retirement as early as possible, including actively making plans and starting specific retirement preparation. Inter-country differences in the proportions of each consumer type and the factors affecting planning and behavior for retirement preparation indicate the need for a different, specific focus in educational measures developed to improve consumer attitudes. For instance, in Japan and the U.S., respondents' education level was associated with differences in retirement preparation planning and behavior. In every country except the U.K., high expected living expenses after retirement were associated with differences in planning and behavior for retirement preparation. Based on these results, it is necessary to develop gradual education programs to help consumers prepare for their retirement. Specifically, customized education programs may help consumers to prepare financially for post-retirement life or effectively practice saving and investment based on their expected expenses after retiring. Such programs will contribute to thorough preparation for retirement and happy post-retirement life by ensuring financial sustainability among greater numbers of consumers.

6. Limitation and Future Research

This study's significance lies in examining the similarities and differences, both within and between countries, between consumers who prepared and practiced properly for financial retirement preparation and those who did not. However, this study has some limitations. First, the variables representing national characteristics were not sufficient to clearly explain inter-country differences. This study focuses on identifying statistically significant differences between countries and consumer types. Therefore, the fact that a particular country had a high percentage of a particular type of consumers was rather difficult to explain. Future studies need to focus on clarifying the differences between countries in order to clearly explore the factors driving these differences. For example, variables representing national policies or cultural characteristics could be included in the analysis. Second, while the economic factors on which this study focused are of significant importance to the process of consumers' retirement preparation, various other non-economic factors such as psychology, health, and relationships also affect post-retirement life. Therefore, future studies need to examine various factors that may affect retirement and post-retirement life, so as to clarify what non-financial aspects should be considered in the consumer type classification, as well as identifying inter-country differences in these variables.

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