ORIGINAL RESEARCH PAPER
Volume - 11 | Issue - 09 | September - 2022 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

AWARENESS OF AND WILLINGNESS TO PAY FOR DISABILITY INSURANCE IN TAIWAN

Public Health

Jhih-Ling Chiu*
Department of Risk Management and Insurance, Ming Chuan University, Taipei, Taiwan
*Corresponding Author

ABSTRACT

Disability insurance in Taiwan is covered by social insurance benefits provided by the government and by commercial insurance benefits. Taiwanese life insurance companies have offered disability insurance packages for decades to provide security for those unable to work. This study explored the awareness of, understanding, and willingness to pay for disability insurance in Taiwan. A questionnaire was designed and distributed to 500 individuals insured by a single Taiwanese insurance company to investigate the factors that influenced their purchase of disability insurance and their willingness to pay for disability insurance. Statistical results showed 13.5% of respondents had purchased disability insurance, 69.3% expressed willingness to pay, and 52.5% were unaware of disability insurance. Hypothetical provision of long-term care insurance was not likely to affect willingness to pay for disability insurance. There is much room for future development in terms of the willingness to pay for disability insurance, as it was not translated into actual purchase among the participants.

KEYWORDS

labor insurance; disability insurance; willingness to pay; long-term care insurance

1. INTRODUCTION

Improvements in medical technology and sanitation have gradually raised the national average life expectancy in Taiwan. Meanwhile, changes in family structure have led to lower birth rates, changes in the economic structure have caused accident rates to soar, and changes in lifestyle and eating habits have indirectly led to higher incidences of certain diseases. In the past, disability was seen as something that only happened to elderly people; however, environmental changes have caused an increasing proportion of the younger population to lose their ability to take care of themselves, further increasing the demand for long-term care. For most families, work is the main source of income, and if the main breadwinner of a family suffers an accident or critical illness, the family loses its steady income, in addition to incurring medical and nursing expenses and suffering physical and psychological hardships.

According to statistical data from Taiwan's Ministry of Health and Welfare (2017), the number of disabled people below the age of 65 was 701,290 at the end of 2016, the majority of whom were young adults. The main causes of mental and physical disability include illness, congenital factors, accidental injuries, traffic accidents, and occupational injuries. According to the 'Report on Taiwanese Demand for Disability Protection' published in 2001 by ING Capital Life Insurance Company Ltd. and Professor Song-Lin Chai (2001), 51.7% of Taiwanese citizens were unaware of disability insurance policies designed to cover the insufficiencies of social insurance. Disability insurance in Taiwan is covered by social insurance benefits provided by the government and by commercial insurance benefits. Taiwanese life insurance companies have offered disability insurance packages for decades to provide security for those unable to work.

This study employed questionnaires to explore insured Taiwanese citizens' awareness of and willingness to pay for disability insurance.

1.1 Current Status of Disability Insurance in Taiwan

1.1.1 Distinction between Disability and Dismemberment

A simple definition of disability is the inability to work, regardless of whether that inability is caused by illness or accident. However, in Taiwan, the definition of disability is often confused with that of dismemberment. The two terms share some similarities, but their definition, nature, and scope differ. Dismemberment refers to the irrecoverability of the insured's health status, while disability refers to a disturbance in the insured's work status (Jiang, 2008). As such, disability insurance protects the insured against the economic risk incurred by the inability to work due to illness or accident, whereas dismemberment insurance compensates for the insured's loss of use of a given body part as it rated by the insurance contract (Zhuo, 2011).

1.1.1 Social Insurance Disability Benefits

The disability benefits offered by Taiwan's social insurance currently include 'ordinary injury or disease' and 'occupational injury' coverage provided by labor insurance and 'disability benefits' included in the Labor Standards Act. Labor insurance disability benefits are a lump sum payment given according to the Disability Benefit Payment Schedule which divides disabilities caused by injury or disease into fifteen levels (an additional 50% is given for disabilities caused by occupational injuries). The strict payment criteria may cause difficulties in successfully claiming disability benefits or receiving adequate compensation. Taiwan's current labor insurance policy allows for disability annuity payments according to whether the disabled has 'complete loss of working ability' as determined by the Disability Payment Schedule. As such, if a laborer has multiple disabilities, yet none which result in a 'complete loss of working ability,' the insured cannot make a claim for disability benefits, an obstacle which undermines the rights and interests of the insured (Song, 2009).

The current disability payment criteria in Taiwan also lack a professional evaluation mechanism as different departments and medical organizations assess disabilities differently. The Taiwanese government has not formulated specific laws and regulations to convert assessment results into reasonable and universal compensation methods and amounts (Li, 2007).

Due to increasing societal competition and changes in labor conditions, the percentage of individuals working multiple jobs has increased greatly, which in turn increases the number of locations where injuries might occur. When accidents do occur, laborers often cannot obtain compensation for occupational injuries due to the differing natures of the job through which they enrolled for insurance and their subsequent jobs.

1.1.3 Commercial Disability Insurance

Disability insurance policies offered by Taiwanese insurance companies are mostly designed as riders, yet disputes often arise between companies and the insured over their definitions of disability. Because of such disputes, as well as the high associated costs, only a few companies have launched disability insurance products. A comparison of the current commercial disability insurance products in Taiwan can be seen in Table 1.

2. MATERIALS AND METHODS

The respondents for this study were individuals insured by a single Taiwanese insurance company. The study explored the respondents' awareness and understanding of disability insurance, the factors that influenced their purchase of disability insurance, and the respondents' willingness to pay for disability insurance in order to deduce the future of disability insurance in Taiwan.

500 questionnaires were distributed in January 2017 and 476 valid questionnaires were then collected. SPSS 18.0 software was used to carry out the statistical analysis of the data obtained from the valid questionnaires.

2.1 Statistical Methods—Frequency Distribution

After organizing the original data, the respondents' personal data, including occupation, annual income, and marital status, was used to compile frequency distribution tables. After preliminary analysis to understand the sample structure, cross analysis was conducted to investigate the respondents' awareness of disability insurance and the factors that influenced the respondents' purchase of disability insurance.

2.2 Questionnaire Design

The questionnaire contained twenty-six questions divided into four sections and consisted of 26 questions in total:

2.2.1 Basic information

This section consisted of six questions that focused mainly on the respondents' basic personal information including gender, age, occupation, education, marital status, and personal income. The study intends to discuss: whether these factors influence the respondents' purchase intentions. The respondents were divided into groups to aid in statistical analysis to find impact factors for willingness to pay.

2.2.2 Respondents' understanding of disability insurance

The 11 questions in this section focused on the given respondents' perspective and intentions for insurance and their understanding and intentions for disability insurance, including whether the respondents understood the content of disability insurance and their motivation behind purchase.

2.2.3 Respondents' willingness to pay for disability insurance

For the respondents who had not purchased disability insurance, this section and its six questions sought to understand if they would be more willing to pay if they developed a preliminary understanding of disability insurance. Other questions sought out impact factors affecting their willingness to purchase, including being the main breadwinner, economic downturns, increased guarantees, and price cuts.

2.2.4 Respondents' understanding and perspective on long-term care insurance

The three questions in this section looked at whether the given respondents understood the difference between disability insurance and long-term care insurance and whether their understanding influenced willingness to pay.

2.2 Sample Distributions

Table 2 shows the individual characteristics for participants in this study. In terms of gender, 44.7% of respondents were male and 55.3% were female. In terms of age, 2.3% of the respondents were under 20 years of age, 38.4% were 20-29, 28.6% were 30-39, 16.2% were 40-49, 11.1% were 50-59, and 3.4% were over 60. In terms of marital status, 48.5% of the respondents were single and 51.5% were married. In terms of highest level of education, 1.3% of the respondents had a doctoral degree, 17.0% had a master's degree, 66.2% had a university degree, 10.9% had a high school degree, 2.9% had a junior high school degree, and 1.7% had an elementary school degree. In terms of occupation, 28.8% of the respondents worked in the service industry; 18.1% in the manufacturing industry; 17.4% in the financial industry; 11.6% were students; 8.0% were members of the military, civil servants, or teachers; 5.0% were self-employed; 3.8% were homemakers; 1.9% were unemployed; and 5.5% of the respondents were recorded as other. In terms of annual income, 22.1% of the respondents had an annual income of less than NT$250,000, 50.6% made NT$250,000-500,000, 18.3% made NT$500,000-800,000, 4.4% made NT$800,000-1 million, 2.7% made NT$1 million to 1.5 million, and 1.9% made more than NT$ 1.5 million.

3. RESULTS

3.1 Respondents' Awareness of and Understanding of Disability Insurance

This study used questionnaires to analyses the respondents' preliminary understanding of disability insurance. Results showed that the majority of the respondents did not understand disability insurance and that previous experience in purchasing other insurance products did not affect their understanding. Table 3 shows that only 50.6% of respondents who purchased their insurance plan were aware of disability insurance. Only 13.5% of the respondents had purchased disability insurance in the past. These results show trends similar to those found by Loewenstein et al. (2013), who found that Americans also have a low understanding health insurance, and Bawa and Ruchita (2011),who found that less than 20% of their respondents in India were covered by some form of health insurance and that less than 20% were willing to pay for it.

3.2 Impact Factors for Willingness to Pay for Disability Insurance

Figure 1 shows the occupation distribution of the respondents and the percentage of respondents in the indicated fields willing and unwilling to pay for disability insurance. After gaining a preliminary understanding of disability insurance, respondents working in the financial industry were the most willing to pay for disability insurance, followed closely by those in the service industry and students.

Table 4 shows that over 50% of the respondents in each income bracket expressed a willingness to purchase disability insurance, illustrating that annual income does not significantly influence willingness to purchase.

With regard to marital status and being the main breadwinner, Table 5 shows that 72.73% of the respondents who were single and 69.80% of the respondents who were married were willing to pay for disability insurance, indicating that marital status does not significantly influence willingness to purchase. Table 6 shows that 73.99% of the respondents who were the main breadwinner of their family, 76.99% of the respondents who were partial breadwinners of their family, and 61.58% of the respondents who were non-breadwinners were willing to pay for disability insurance, indicating that respondents who shouldered more economic responsibility in their family were more willing to pay for disability insurance. Although this study did not take into account number of children, Cameron, DeShazo, and Johnson (2010) pointed out that the demand by adults for programs which reduce their own health risks is found to be influenced by their age, whether or not they have children, and the number of children. Thus, the results of this study may be correlated to the number of children in the respondents' families.

Concerning annual insurance premium, respondents were asked how much they would be willing to spend annually on disability insurance premiums. Figure 2 shows that the majority of the respondents were only willing to pay less NT$5,000 for annual insurance premiums, indicating that insurance premiums would likely impact willingness to pay.

3.3 Disability Insurance vs. Long-term Care Insurance

Results from the questionnaire showed 77.10% of the respondents did not understand the difference between disability insurance and long-term care insurance. Figure 3 indicates that if Taiwan's government were to implement long-term care insurance, it would not be likely to significantly impact willingness to pay for disability insurance.

4. DISCUSSION

The results of this study show that 49.4% of the respondents who had purchased their insurance plans were unaware of disability insurance and that 52.5% of the total respondents were unaware of disability insurance. This shows no improvement in awareness over the past decade compared to the results of the aforementioned study by ING and Chai (2001). This low understanding of disability insurance corresponded with a low rate of purchase; only 13.5% of the respondents had purchased disability insurance in the past. Despite this low level of actual purchasing, 69.3% of the respondents expressed a willingness to pay for disability insurance.

This study found that respondents working in the service and financial industries were more willing to purchase disability insurance. Annual income and marital status were not likely to impact willingness to purchase disability insurance. The government's implementation of long-term care insurance would also not likely have a significant impact on willingness to purchase disability insurance. The two factors this study found to be most likely to impact purchase willingness were being the main breadwinner or partial breadwinner in a family and the annual insurance premium.

As the Taiwanese government only provides basic social insurance, commercial disability insurance is needed to ensure adequate benefits. Unfortunately, the willingness to pay for disability insurance has not yet translated into actual purchase, indicating there is much room for future development.

Conflicts of Interest

The author declares no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author received no financial support for the research, authorship, and/or publication of this article.

Geolocation information

Taiwan.

Table 1. Comparison of disability insurance products

Company	Nan Shan Life Insurance	TransGlobe Life Insurance	Shin Kong Life Insurance
Name of Product	Accident Insurance Rider (AI)	Disability Insurance (DWQ)	Accident and Injury Disability insurance Rider
Definition of Disability	1. Unable to continue any original work requirements. 2. Unable to continue part of original work requirements. 3. Permanently unable to fulfil any work requirements; that is the insured is unable to complete any work for no less than 52 weeks after the day of the accident and is unable to recover work ability or be employed at any job for life.	After seeking medical treatment for injury due to illness or accident, the insured's health status prohibits the insured from receiving work and salary congruent with the insured's education or training; or the diagnosis of disability conforms with one of the disability stipulations provided in the contract.	According to the insured's medical diagnosis after an accident, it can be determined that the insured shall lose his/her original working capability and cannot receive salary within the effective period of this rider. After the insured has a claim for disability benefits in accordance with this rider for 24 terms, the standard for 'disability' shall be defined as 'the insured has lost the ability to work and receive pay.'

Sources:

(1) Nan-Shan Life Insurance. Rider personal accident. 2010. https://www.nanshanlife.com.tw/webapp/NanShan/public_site/index_main.jsp?MenuId=products.ensure. Accessed December 15, 2015.

(2) Transglobe Life Insurance. Disability insurance rider. 2010. http://www.transglobe.com.tw/product/product-dwq.shtml. Accessed April 10, 2015.

(3) Shin-Kong Life Insurance. Accident and injury disability insurance rider. 2010. http://www.skl.com.tw/general/product_show.asp?profile=T1. Accessed April 25, 2016.

Table 2. Statistical variable distribution for total sample population

Variable	Groups	No. of persons	Percentage
Gender	Male	213	44.7%
	Female	263	55.3%
Age	Below 20	11	2.3%
	20-29	183	38.4%
	30-39	136	28.6%
	40-49	77	16.2%
	50-59	53	11.1%
	Above 60	16	3.4%
Marital status	Single	231	48.5%
	Married	245	51.5%
Highest level of education	Elementary school or below	8	1.7%
	Junior high school	14	2.9%
	Vocational or senior high school	52	10.9%
	Specialized training institute or university	315	66.2%
	Master	81	17.0%
	Doctoral	6	1.3%
Occupation	Financial industry	83	17.4%
	Service industry	137	28.8%
	Manufacturing industry	86	18.1%
	Military, civil servant, or teacher	38	8.0%
	Self-employed	24	5.0%
	Homemaker	18	3.8%
	Student	55	11.6%
	Unemployed	9	1.9%
	Other	26	5.5%
Annual income	Below NT$250,000	105	22.1%
	NT$250,000-500,000	241	50.6%
	NT$500,000-800,000	87	18.3%
	NT$800,000-1,000,000	21	4.4%
	NT$1,000,000-1,500,000	13	2.7%
	Above NT$1,500,000	9	1.9%

Table 3. Statistical analysis of whether the subject had purchased insurance and the subject's knowledge of disability insurance

		Had heard of disability insurance		Total
		Yes	No	
Had purchased insurance	Yes	215	210	425
	No	11	32	43
	Unsure	0	8	8
Total		226	250	476

Table 4. Annual income and willingness to purchase

	Willingness to purchase		
Annual Income	Yes	No	Percentage
Below NT$250,000	90	42	68.18%
NT$250,000-500,000	163	51	76.17%
NT$500,000-800,000	52	35	59.77%
NT$800,000-1,000,000	13	8	61.90%
NT$1,000,000-1,500,000	7	6	53.85%
Above NT$1,500,000	5	4	55.56%
Total	330	146	69.33%

Table 5. Marital status, main breadwinner, and willingness to pay

	Willingness to pay		
	Yes	No	Percentage
Single	168	63	72.73%
Married	171	74	69.80%
Main breadwinner	128	45	73.99%
Partial breadwinner	87	26	76.99%
Non-breadwinner	117	73	61.58%

REFERENCES

1. Ministry of Health and Welfare. "The Disabled Population by Classification and Age." Accessed 14 June 2017. Retrieved from https://www.mohw.gov.tw/dl-22104-b34586a2-2c2b-4b83-8588-0270a164643a.html; 2017.
2. ING Capital Life Insurance Company Ltd., and Chai, S. L. "Report on Taiwanese demand for disability protection." Accessed 14 June 2017. Retrieved from http://mychannel.pchome.com.tw/channel/class/class_paper_open.htm?d=2002-05-14&e=albertwei&t=.htm&j=77&f=main&v=1; 2001.
3. Jiang, C. G. "Revisit disability insurance: a comparison between the concept 'disability' and 'disable' in life insurance." In *The Expansion of the New Thinking in Civil Law*, edited by Han, Y. J., pp. 2008; 85-102, Taipei: Angle Publishing Co. Ltd.
4. Zhuo, X. Y. "A study on legal issues relating to disability insurance and analysis of its contractual provisions." Master's thesis. National Taipei University, Taipei, Taiwan; 2011.
5. Song, Y. D. "A study on amendments of labour insurance act—focus on the overlapping of various payments." Master's thesis. National Taipei University, Taipei, Taiwan; 2009.
6. Li, Y. L. *A Study on Labour Insurance Disability Benefits and Its Supporting Procedures*. Taipei, Taiwan: Bureau of Labour Insurance; 2007.
7. Loewenstein, G., Friedman, J. Y., McGill, B., Ahmad, S., Linck, S., Sinkula, S., Beshears, J., J. Choi, J., Kolstad, J., Laibson, D., Madrian, B. C., List, J. A., and Volpp, K. G. "Consumers' misunderstanding of health insurance." *Journal of Health Economics* 2013; 32: 850-862.
8. Bawa, S. K., and Ruchita, M. "Awareness and willingness to pay for health insurance: An empirical study with reference to Punjab India." *International Journal of Humanities and Social Science* 2011; 1: 100-108. Accessed 14 June 2017.
9. Cameron, T. A., DeShazo, J. R., and Johnson, E. H. "The effect of children on adult demands for health-risk reductions." *Journal of Health Economics* 2010; 29: 364-376. doi:10.1016/j.jhealeco.2010.02.005.