

A Survey Study on the Influencing Factors of Life Satisfaction of Chinese Elders in New Zealand in the Internet Era

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Author Biography

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Abstract

This thesis investigates the factors influencing the life satisfaction of elderly Chinese immigrants in New Zealand in the era of increasing internet usage. With a significant population of over 40,000 Chinese elders aged 65 and above residing in New Zealand, the study focuses on how the internet affects their social integration, access to information, and overall well-being. The research primarily utilizes a survey methodology, distributing questionnaires among various Chinese community organizations to collect data on internet usage patterns, social behaviors, and perceived life satisfaction.

The findings suggest that internet use plays a crucial role in enhancing life satisfaction by providing means of social connectivity, access to daily information, and maintaining cultural ties. The study concludes that the effective use of the internet correlates with higher life satisfaction among Chinese seniors in New Zealand. Education level, physical health, and income emerged as significant factors affecting life satisfaction as well. The thesis advocates for enhanced digital literacy programs and health care services tailored to the needs of elderly immigrants, promoting a more inclusive approach to community support and engagement.

Keywords: life satisfaction, internet era, internet use, internet survey, cross-tabulation, multi-logistics analysis, Chinese senior immigrant, New Zealand

Introduction

Since COVID-19, the internet has become a significantly more essential tool for enhancing the quality of life for many individuals, including more than 40,000 Chinese elders aged 65 and over in New Zealand (Stats NZ). These individuals face unique challenges, such as language barriers, cultural differences, and social isolation. This literature review explores the influence of internet use on life satisfaction of elders through the examination of both positive and negative impacts.

Internet use significantly enhances social connectivity among senior Chinese immigrants, contributing to maintaining bonds and connection with their family and friends in China through platforms like WeChat. Social networking sites are emphasized as facilitating integration into new communities by allowing seniors to find peers, share experiences, and build supportive networks (Xie et al., 2012). Furthermore, Nahm, Resnick, and Gaines (2004) note that online health information empowers seniors to make informed health decisions, which are essential for overcoming language barriers when accessing health services. Engagement with online content helps preserve cultural identity and stimulates cognitive function, potentially delaying cognitive decline through activities like puzzles and educational courses, ultimately contributing overall to the improvement in cognitive health (Small et al., 2009).

Despite its benefits, challenges such as the digital divide persist. This divide can exacerbate feelings of exclusion and frustration, particularly for seniors with limited technology skills or English proficiency (Boot & Charness, 2009). Moreover, difficulties in learning new technologies can discourage internet use, posing a significant barrier for seniors who feel marginalized in English-speaking environments (Tsai et al., 2017). Moreover, privacy and security are major concerns. It is noted that fears of online scams and breaches deter full utilization of the internet (Heart & Kalderon, 2013). Equally important, excessive internet use can lead to physical health issues like eye strain and poor posture.

Understanding the impact of internet use on life satisfaction among senior Chinese immigrants in New Zealand is crucial. This demographic is rapidly

growing due to increasing immigration and an aging global population. Previous research, including Liu et al.'s (2018) study on filial piety and intergenerational communication, Li's (2011) dissertation on aging and wellbeing among Chinese migrants, Yeung and Allen's (2020) examination of health and life quality, Zhang's (2014) exploration of social support, and Ran and Liu's (2021) analysis of family dynamics among Chinese immigrants in New Zealand, has provided comprehensive insights into the living conditions of elderly Chinese in New Zealand. However, the current article shifts focus towards optimizing services for elderly individuals in the post-COVID internet era, addressing the unique challenges and opportunities that have emerged in digital engagement and service provision to enhance the quality of life for this demographic. The internet offers significant benefits like enhanced social connectivity and access to services, but it also presents challenges that need to be addressed.

Methodology

This study used two methods: interviews and questionnaires. In the study, more than 30 elders, family members, and professional practitioners in the elderly care industry were interviewed. After obtaining some basic knowledge, an internet questionnaire was conducted.

Tencent Questionnaire-based survey was distributed through various Chinese community organizations in New Zealand, including but not limited to the Auckland Albany Chinese Association Orchestra and Chorus, Tsinghua University New Zealand Alumni Association, Peking University New Zealand Alumni Association, etc.

The survey commences with demographic questions, including age, gender, and education level, to establish a contextual background for the respondents (Q1-Q3). Driving frequency in New Zealand is addressed in Q4, segmented into often, sometimes, or never driving. This question aims to understand the mobility and independence of the respondents, which can significantly impact their internet usage patterns and overall life satisfaction.

The survey proceeds to delve into the specifics of internet usage (Q5-Q7). Respondents are

asked to report their average daily internet usage in hourly increments, providing a detailed view of their online engagement. Additionally, they are queried about the specific internet platforms they use, such as WeChat, TikTok, and TradeMe, and their primary purposes for internet usage, including communication, purchasing goods, and learning new skills. These questions are pivotal in understanding the digital behaviors and preferences of elderly Chinese in New Zealand.

Income levels are captured in Q8, with a range of income brackets from 0-3000 RMB to above 20000 RMB. This question is crucial for correlating financial stability with internet usage and life satisfaction. Moreover, health status is assessed in Q9, with options ranging from very healthy to very unhealthy, allowing for the analysis of the influences of health on internet engagement and overall well-being.

The survey then explores life satisfaction through Q10, where respondents rate their satisfaction with various life aspects on a scale from 1 to 9. This includes overall satisfaction, social relationships, living environment, family relationships, and spiritual life. This detailed metric enables a nuanced understanding of the factors contributing to the quality of life for Chinese elders in New Zealand.

Q11 and Q12 inquire about the duration of residency in New Zealand and the role of primary caregivers for grandchildren. These factors are important for contextualizing the adaptation and familial responsibilities that might influence internet usage and life satisfaction.

Q13 requires respondents to rank their daily activities by the time spent, offering insights into their daily routines and the role of the internet in their daily lives. The final questions (Q14 and Q15) probe into any encountered inconveniences in New Zealand and the potential of the internet to mitigate these issues. This open-ended query allows for qualitative data collection, enriching the survey's findings.

Result and discussion

We distributed and collected a total of 209 questionnaires. The figure below presents the age

distribution of the respondents. Among them, 39 people were aged 50-54; 35 were aged 55-59; 34 were aged 60-64; 49 were aged 65-69; 29 were aged 70-74; 15 were aged 75-79; and 8 were aged 80-84. The overall distribution is relatively balanced and representative (see Table 1).

Table 1 Age distribution

50-54	39	18.6%
55-59	35	16.7%
60-64	34	16.2%
65-69	49	23.3%
70-74	29	13.8%
75-79	15	7.1%
80-84	8	3.8%

In terms of the duration of internet use, 40% of the respondents report using it for 2-4 hours a day, and 39.5% report using it for 4-6 hours a day. Regarding specific internet platforms, WeChat is the most popular, with 97.1% of respondents using it. Xiaohongshu ranks second, with 34.3% of respondents using it. Toutiao ranks third, with 30.5% of respondents using it. Douyin ranks fourth, with 21.9% of respondents using it. These four platforms are all Chinese, making it significantly more convenient for the elderly to contact relatives and friends who are still in China. SkyKiwi ranks fifth, used by 20% of respondents. It is a local Chinese media platform with New Zealand characteristics (see Table 2).

Table 2 Duration of internet use

SkyKiwi	42	20%
WeChat	204	97.1%
Temu	3	1.4%
Toutiao	64	30.5%
Tiktok	46	21.9%
Xiaohongshu	18	8.6%
TradeMe	17	8.1%
Email	39	18.6%
Redbook	72	34.3%
other	13	6.2%

In terms of the purpose of usage, 84.3% of respondents indicated using the internet for socializing; 70.5% use it to obtain daily life information. The third most common purpose is to pass time, with

61% of respondents using the internet for this reason. Additionally, 29% of respondents shop online, and 27.6% use the internet for studying (see Table 3).

Table 3 Purpose of use

Daily information	148	70.5%
Social network	177	84.3%
Shopping	61	29%
Kill time	128	61%
Learning	58	27.6%
other	7	3.3%

In terms of residence duration, 43.8% of the respondents have lived in New Zealand for more than 5 years, which is the largest proportion among all respondents. Additionally, 22.4% have lived in New Zealand for 1 to 3 years; 21.9% have lived in New Zealand for less than one year; and 11.9% have lived in New Zealand for 3 to 5 years.

Furthermore, the ranking of the main activities in daily life is shown in the table below. 53.8% of the elderly regard shopping and cooking as the most important activities in their lives, followed by housework, taking care of children in third place, leisure and entertainment in fourth place, personal improvement in fifth place, and family activities in sixth place. See the table below for specific rankings (see Table 4).

Table 4 Main activities in daily life

Options	Comprehensive rank	Ranking N o.1	Ranking N o.2	Ranking N o.3	Ranking N o.4	Ranking N o.5	Ranking N o.6
Cooking	1	113 (53.8%)	36 (17.1%)	19 (9%)	17 (8.1%)	15 (7.1%)	8 (3.8%)
Housework	2	33 (15.7%)	98 (45.4%)	21 (10%)	22 (10.5%)	16 (7.6%)	9 (4.3%)
Taking care of child or children	3	17 (8.1%)	14 (6.7%)	96 (45.7%)	19 (9%)	13 (6.2%)	22 (10.5%)
Entertainment	4	23 (11%)	17 (8.1%)	29 (13.8%)	28 (13.3%)	86 (42.4%)	23 (11%)
Self-improvement	5	10 (4.8%)	20 (9.5%)	17 (8.1%)	94 (44.8%)	34 (16.2%)	25 (11.9%)
Family gathering	6	5 (2.4%)	14 (6.7%)	21 (10%)	24 (11.4%)	38 (18.1%)	103 (49%)
Others	7	9 (4.3%)	1 (0.5%)	7 (3.3%)	6 (2.9%)	5 (2.4%)	19 (9%)

Regarding life satisfaction, we divide it into five categories: overall satisfaction, social relations, living environment, family relations, and spiritual life. We can conclude from the chart that the overall situation is relatively good, with almost no negative comments. This reflects that Chinese elders have made careful considerations about deciding whether to live

in New Zealand and generally enjoy life here. Overall satisfaction, living environment, and family relations are relatively high, while social relations and spiritual life are relatively low. This indicates that, overall, Chinese residents have a higher degree of satisfaction with their living environment and family relations compared to their social relations and personal spiritual life. It highlights that most Chinese elders are socially isolated due to language barriers and cultural differences (see Table 5).

Table 5 Life satisfaction

Sub-questions	1 (very dissatisfied)	2	3	4	5	6	7	8	9 (very satisfied)
Overall satisfaction	0 (0%)	0 (0%)	0 (0%)	1 (0.5%)	6 (2.9%)	22 (10.5%)	7 (2.9%)	57 (41.9%)	32 (15.2%)
Social relationships	0 (0%)	1 (0.5%)	3 (1.4%)	4 (1.9%)	21 (10%)	41 (19.5%)	51 (26.2%)	43 (20%)	22 (10.5%)
Living environment	0 (0%)	0 (0%)	0 (0%)	1 (0.5%)	6 (2.9%)	14 (6.7%)	44 (21%)	51 (24.3%)	22 (10.5%)
Family relationships	0 (0%)	0 (0%)	2 (1%)	1 (0.5%)	11 (5.2%)	15 (7.1%)	34 (16.2%)	51 (23.9%)	3 (26.7%)
Spiritual life	0 (0%)	1 (0.5%)	0 (0%)	1 (0.5%)	15 (7.1%)	28 (13.3%)	51 (24.4%)	75 (33.3%)	29 (13.8%)

Subsequently, this study examines the variances in internet usage patterns between male and female elderly populations. In terms of the purpose of internet usage, we found no significant difference in the categories of information acquisition, socializing, and passing time. However, female elders are more inclined to shop online. 34% of women use the internet for shopping, compared to only 23% of men. Conversely, in terms of using the internet for learning, significantly more male elders engage in this activity. 34.7% of male elders use the internet for learning, while only 21.9% of female elders do (see Table 6).

Table 6 Differences between different types of male and female elders

Sub-questions	Male	Female
Daily information	73 (70.8%)	75 (65.8%)
Social network	77 (81.1%)	100 (87.7%)
Shopping	22 (23.2%)	39 (34.2%)
Kill time	58 (61.1%)	69 (60.5%)
Learning	33 (34.7%)	25 (21.9%)
other	4 (4.2%)	3 (2.6%)

In the cross-analysis of internet software usage by elders of different genders, we found no significant gender difference overall; only Toutiao and Xiaohongshu show notable differences. Male elders prefer Toutiao, with 42.1% using it, compared to only

21.2% of female elders. On the other hand, female elders prefer Xiaohongshu, with 43.0% using it, while only 23.2% of male elders use it (see Table 7).

Table 7 Cross-analysis of the use of internet software by elders of different genders

Sub-questions	Male	Female
SkyKiwi	23 (24.2%)	19 (16.7%)
WeChat	92 (96.8%)	111 (97.4%)
Temu	1 (1.1%)	2 (1.8%)
Toutiao	45 (42.1%)	24 (21.1%)
Tiktok	27 (28.4%)	19 (16.7%)
Kuaishou	10 (10.5%)	8 (7.0%)
Trademe	9 (9.5%)	8 (7.0%)
Email	19 (20.0%)	20 (17.5%)
Redbook	22 (23.2%)	46 (43.0%)
other_____	7 (7.4%)	6 (5.3%)

According to the interviews, the decision to drive or not in New Zealand also affects life satisfaction, so we conducted some analysis. First, by gender, a significantly higher percentage of male elders often drive. Specifically, 38.9% of male elders often drive, compared to only 29.8% of female elders (see Table 8).

Table 8 Driving in New Zealand

Sub-questions	Male	Female
Often	37 (38.9%)	34 (29.8%)
Sometimes	19 (20.0%)	25 (21.9%)
Never	39 (41.1%)	55 (48.2%)

In addition to cross-analyzing gender factors and factors affecting life satisfaction, we also cross-analyzed age factors. We found that as age decreases, the proportion of people using the internet to obtain daily information gradually increases, and the number of people using the internet to pass time also increases. However, the proportions of socializing, shopping, and learning do not fluctuate significantly with age. This, to some extent, suggests that as age increases, the radius of life decreases, leading people to rely more on the internet to pass time (see Table 9).

Table 9 Cross-tabulation of internet use purposes for different age groups

Sub-questions	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Daily information	29 (74.4%)	28 (80.0%)	25 (73.5%)	37 (75.0%)	19 (65.5%)	7 (23.7%)	3 (37.5%)
Social network	30 (76.9%)	32 (91.4%)	29 (85.3%)	40 (81.6%)	25 (86.2%)	13 (86.7%)	7 (87.5%)
Shopping	19 (48.2%)	13 (37.1%)	5 (23.5%)	12 (24.5%)	4 (13.8%)	1 (26.7%)	2 (25.0%)
Kill time	19 (48.7%)	19 (53.3%)	21 (61.6%)	37 (75.0%)	17 (58.6%)	9 (60.0%)	6 (75.0%)
Learning	12 (30.8%)	16 (45.7%)	11 (28.5%)	7 (14.3%)	0 (20.7%)	6 (40.0%)	2 (25.0%)
other_____	2 (5.1%)	1 (2.9%)	1 (2.9%)	0 (0.0%)	1 (3.4%)	2 (13.3%)	0 (0.0%)

In addition, we also conducted a cross-analysis of age and the use of internet products. We found significant differences in the usage of Xiaohongshu and email. As age decreases, an increasing number of elders use Xiaohongshu social software (see Table 10).

Regarding the factors that influence the decision to drive, we also conducted a cross-analysis with age. Consistent with the author's intuition, the younger the group, the greater the frequency of driving, while the older individuals almost never drive. As a result of the relatively high cost of taking a taxi in New Zealand, their daily travel is limited. With the popularization of artificial intelligence and driverless cars in the future, I believe that the elderly will have a better travel radius and experience (see Table 11)

Table 10 Cross-analysis of age and the use of internet products

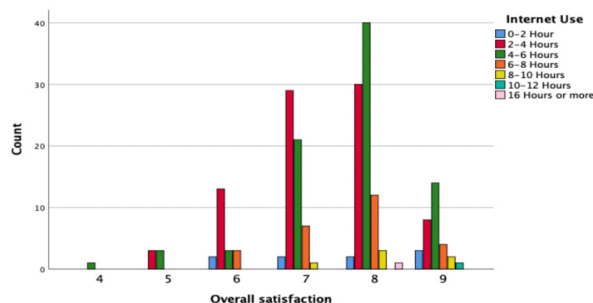
Sub-questions	50-54	55-59	60-64	65-69	70-74	75-79	80-84
SkyKiwi	1 (2.6%)	13 (37.1%)	7 (20.6%)	6 (12.2%)	2 (6.9%)	3 (20.0%)	1 (12.5%)
WeChat	38 (97.4%)	35 (100.0%)	32 (94.1%)	48 (98.0%)	27 (93.1%)	15 (100.0%)	8 (100.0%)
Temu	1 (2.6%)	0 (0.0%)	2 (5.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Toutiao	7 (17.9%)	16 (45.7%)	6 (28.5%)	12 (24.5%)	15 (51.7%)	3 (20.0%)	2 (25.0%)
Tiktok	3 (20.5%)	12 (34.3%)	7 (20.6%)	15 (28.5%)	5 (17.2%)	1 (6.7%)	0 (0.0%)
Kuaishou	0 (0.0%)	5 (14.3%)	5 (14.7%)	4 (8.2%)	3 (10.3%)	1 (6.7%)	0 (0.0%)
Trademe	6 (15.4%)	6 (17.1%)	2 (5.9%)	1 (2.0%)	0 (0.0%)	2 (13.3%)	0 (0.0%)
Email	16 (41.0%)	11 (31.4%)	5 (14.7%)	2 (4.1%)	2 (6.9%)	2 (13.3%)	1 (12.5%)
Redbook	24 (61.5%)	10 (28.6%)	13 (38.2%)	16 (32.7%)	2 (4.1%)	2 (13.3%)	0 (0.0%)
other_____	0 (0.0%)	1 (2.9%)	2 (5.9%)	1 (2.0%)	2 (6.9%)	1 (6.7%)	6 (75.0%)

Table 11 Cross-analysis of age and driving

Sub-questions	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Often	28 (71.8%)	21 (60.0%)	0 (26.5%)	9 (18.4%)	2 (6.9%)	2 (13.3%)	0 (0.0%)
Sometimes	6 (15.4%)	9 (26.7%)	0 (26.5%)	14 (28.6%)	5 (17.2%)	1 (6.7%)	0 (0.0%)
Never	5 (12.8%)	5 (14.3%)	18 (57.1%)	26 (53.1%)	22 (75.9%)	12 (80.0%)	8 (100.0%)

Ultimately, the study employed SPSS software to perform a cross-analytical assessment of internet usage across various groups differentiated by overall satisfaction levels. According to the chart, we concluded that groups with high overall satisfaction tend to have relatively greater internet usage time, implying that the ability to make better use of the internet can improve the life satisfaction of Chinese elders here. For example, the most common proportion of the two groups with satisfaction levels of 9 and 8 is 4-6 hours of use, while the most common proportion of the groups with satisfaction levels of 6 and 7 is 2-4 hours of use (see Table 12).

Table 12 Cross-analysis of internet usage in different overall satisfaction groups



In SPSS software, we use a multinomial logistic model for regression and set the dependent variables as overall life satisfaction, health status, and influencing factors, considering gender, age, education level, income, whether to drive, whether they take care of children, and the length of internet use. After entering the different variables into the model, we obtained a chart with a relatively high degree of fit. It can be concluded that age and gender have statistically insignificant effects on overall life satisfaction.

When comparing different models, we found that the two most significant influencing factors are education level and physical health. The time spent on internet usage is also statistically insignificant. In most

models, income is a significant variable that affects life satisfaction. Considering the limited data size, the number of samples can be further expanded in future studies to draw more detailed conclusions (see Table 13).

Table 13 Multi-logistic Regression results

Pseudo R-Square					Pseudo R-Square					Pseudo R-Square				
Likelihood Ratio Tests					Likelihood Ratio Tests					Likelihood Ratio Tests				
Effect	Model Chi-Square	df	Sig.		Effect	Model Chi-Square	df	Sig.		Effect	Model Chi-Square	df	Sig.	
Intercept	345.067 ^a	.000	0		Intercept	318.839 ^a	.000	0		Intercept	347.067 ^a	.000	0	
Internet Use	200.122	5,368	.5	.483	Internet Use	224.242	6,303	.5	.278	Internet Use	396.815	5,751	.5	.083
Education	308.880	23,825	15	.004	Education	342.234	27,196	15	.027	Education	416.351	29,288	15	.015
Income	308.882	13,817	10	.005	Income	342.234	27,196	15	.027	Income	402.501	15,438	10	.117
Physical Condition	412.103 ^b	87,200	25	.000	Physical Condition	336.045	18,006	10	.055	Physical Condition	413.649	44,606	25	.000

The chi-square statistic is the difference in -2 log likelihood between the full model and a reduced model. The reduced model is formed by dropping an effect from the full model. The null hypothesis is that all parameters of the effect are 0.

a. This reduced model is equivalent to the full model of the full model.

b. The log likelihood value cannot be further increased after increasing the number of model terms.

There were also some open-ended questions in the questionnaire. The respondents mainly discussed medical issues, complaining about New Zealand's insufficiently responsive medical care for Chinese elders and the inconvenience of seeing a doctor.

Conclusion

The internet has become an indispensable part of the lives of Chinese elders. Most Chinese elders use it for 2 to 6 hours a day. It serves as an important channel for obtaining information and socializing. In the future, any institution or organization providing services for this group should consider the impact of the internet on them.

The influence of Chinese local platforms is stronger than that of local New Zealand media. There are also gender differences: men are more inclined to use Toutiao, while women prefer Xiaohongshu. Unlike young people, email is not common among the elderly; only a small number of individuals with higher education use it.

The main factors affecting life satisfaction are education level, physical health, and income. Therefore, senior universities, health care centers, and financial services for the elderly can better improve the life satisfaction of this group. As progeny of elderly immigrants, it is incumbent upon us to intensify the focus on addressing the spiritual and social requisites of the elderly, fostering an environment that enhances their overall well-being and integration into society.

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