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## Digital transformation in the New Zealand retail banking sector: Challenges and opportunities for elderly customers

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### ABSTRACT

This research focuses on the digital transformation of retail banking in New Zealand, focusing on the challenges and opportunities elderly customers face. The banking industry is undergoing unprecedented change as technology evolves and customer needs change. However, elderly customers face physical and security challenges associated with digital transformation and lower acceptance of new technologies. This paper analyses the characteristics and needs of elderly customers, investigates the different needs of elderly and young customers, and recommends relevant solutions and suggestions. This investigation is based on secondary data, and recently published articles from various sources were used to collect information. In the wave of digital transformation, banks not only need to strive to provide convenient, safe, and high-quality services, but also need to innovate continuously to meet the needs of all customers and enhance their trust and satisfaction. This report provides exclusive digital service suggestions and solutions to help banks better meet the needs of elderly customers.

### KEYWORDS

Digital transformation; elderly customers; retail banking; mobile banking applications; trust and satisfaction; dedicated digital service programme

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## 1. Introduction

The retail banking industry in New Zealand has undergone significant digital transformation, driven by the rise of emerging fintech companies and advances in open banking and Application Programming Interface (API) technologies (Accuracy, 2022). However, this transformation presents challenges for serving the elderly customer group, who may face difficulties in accepting and using new technologies (Crossett, 2020). In the context of this report, elderly customers are defined as individuals who are 65 years or older (Kane, 2019). This age threshold is commonly used to single out the older population and is widely accepted in various studies related to elderly customers and their behaviours in the banking industry. While 90% of consumers prefer online banking services, there is still a portion of the population, including older people, who lack access or familiarity with technology (i-SCOOP, 2023). They may be unable to download the app because they do not have a desktop computer or mobile device. Unfamiliarity with technology, low acceptance, or other reasons prevent access to online services, especially among the older population (Villarejo et al., 2019).

The digital divide and the unique needs of elderly customers highlight the importance of addressing their requirements during the digital transformation process. Banks use digital technology and information technology to transform the traditional face-to-face service into more convenient, fast and secure online services. This is called the digital transformation of banks. This report focuses on New Zealand retail banks' digital transformation driven by fintech, with a particular focus on the challenges faced by elderly customers. Despite the popularity of digital technology, the elderly group is unable to fully enjoy its convenience due to the "digital divide", which affects financial experience and quality of life. The report not only compares the differences in needs between older and younger customers, but also provides specific strategies for banks. Its novelty lies in digging deeper into the unique challenges of elderly customers in digital transformation, aiming to guide banks to better meet the needs of this group.

## 2. Literature Review

The number one driver in New Zealand's retail banking industry's digital transformation is meeting customer needs. In recent years, with the development of banking digitisation, consumer needs and behaviours have changed significantly, and most consumers now prefer to use digital services for banking transactions rather than traditional physical banking services (Brynjolfsson & McAfee, 2014). Consumers of all ages are increasingly using digital banking channels, and underserved consumers are also turning digital which further reflects the high demand and preference for digital banking among consumers (Valenti & Alderman, 2022). It can be seen that digital banking offers greater convenience and efficiency through flexibility (24/7 availability and faster service), customer experience (virtual banking and tailor-made service tools such as budgeting and forecasting), competitive rates (due to lower operating costs such as labour costs and fixed costs), and environmentally friendly services (digital banks are more ecofriendly than traditional banks). The digital transformation of the banking industry is a response to changes in consumer demand in order to meet consumer needs better and increase their satisfaction and loyalty (Kane et al., 2015).

### 2.1. Changes in Customer Needs

With the rapid development of technology and the popularity of smart devices, people's lifestyles and consumption habits are changing profoundly, and expectations for banking services are also changing. Modern customers expect more comprehensive, convenient, and personalised services: ease of use, simplicity, and responsiveness (MEA Finance, 2023). They expect to be able to access their accounts anytime, anywhere, to conduct transactions, inquiries, and transact business. They want real-time access to account information without having to

wait in line at a bank branch or fill out complicated forms at the counter and have more error rates. The original high bank fees and low deposit yields open customers to switching banks (Caporal, 2023). A report by Principato (2022) lists 19 key reasons why customers switch banking service providers, and the top six reasons are: protection of customer data, process and fees, online banking capabilities, mobile banking capabilities, value for money, and convenience of branch location. Based on this information it can be inferred that customers are concerned about their banks' digital capabilities in the areas of customer data protection, online banking capabilities and mobile banking capabilities which can be directly attributed to digital transformation of the banking industry. Once customers' needs are unmet, customers will immediately choose to change banks, (Albahary, 2018) resulting in the loss of bank customers. Customer demands for banking services are increasing, dramatically changing required services (Choudrie et al., 2018).

On the other hand, if banks continue to stick to the service model of the past, they may face the risk of losing customers or even being forgotten by the market. In the current customer-centric environment, the banking industry must adapt to and accept this change in demand and begin digital transformation. Many banks have expanded the variety and scope of their services in mobile and online banking, enabling customers to conduct various banking services conveniently on computers or mobile phones, saving time and expenses visiting outlets and waiting in queues. This change improves operational efficiency, reduces costs, and meets customer demand for high-quality mobile and online banking services (Shmat, 2022).

However, elderly customers are not used to this new service method, and their acceptance is low. They are more inclined to traditional branch service and think face-to-face communication at the bank branch will make them feel more secure (Cabeza-Ramírez, 2021). Therefore, while banks are undergoing digital transformation, in addition to meeting the needs of most customers to achieve satisfaction, they must also balance and meet the unique needs of elderly customers (Bellens et al., 2021). In general, this transformation is improving efficiency and reducing costs while meeting the needs of various customer groups and satisfying customers to maximise benefits.

## *2.2. Technological Development and Innovation*

In the digital transformation process of retail banking, technological development, and innovation have played a key role, including intelligent decision-making and communication, an extension of open banking API, intelligent process automation, and embedded banking (Marous, 2022). According to Deloitte (2018), banks face the challenge of deploying advanced technologies in their digital transformation. Among them, Artificial Intelligence (AI) is the biggest challenge faced by 84% of banks. The cybersecurity and cloud computing challenges tied for second place with 65%. These challenges were followed by advanced data analytics and robotic process automation challenges with 62% and 56% respectively. These challenges are required to be addressed proactively to ensure a successful digital transformation in the retail banking industry.

Intelligent decision-making and communication utilise data and AI technologies to provide highly personalised services, generating targeted investment advice and financial product recommendations based on customer needs and preferences (Tsindeliani et al., 2021). Customers seek timely, relevant, and personalised banking experiences, while open banking APIs simplify processes, improve efficiency, foster innovation, and increase customer loyalty. Intelligent process automation, utilising technologies like Robotic Process Automation (RPA) and Digital Process Automation (DPA), digitalises banking processes and enhances operational efficiency (Accuracy, 2022). Automation reduces manual intervention, improves accuracy, and streamlines tasks such as account opening, credit card applications, and loan management, leading to improved service quality and reduced errors. According to Accuracy (2022), among the key processes of automation in the retail banking industry, account opening and service links have high automation potential which can greatly improve efficiency and convenience. In contrast, loan approval and fraud detection are high-risk areas that require more careful application of automation to ensure accuracy and

security.

Embedded banking seamlessly integrates banking services into customers' daily digital platforms, offering convenience and cost-efficiency. It enables customers to conduct financial transactions through non-bank applications, improving convenience (Kahn, 2023). The slow acceptance and response of elderly customers to new technologies require comprehensive teaching, guidance, and timely information transmission to prevent confusion and reduce reluctance to embrace digital advancements (Rajaobelina et al., 2021).

Technological and developmental innovations can provide greater convenience to elderly customers, enabling them to enjoy efficient banking services at any time and from any location. Secondly, financial inclusion has been expanded, allowing elderly customers to access the same financial opportunities as other age groups. In addition, banks can provide personalised financial services to meet the specific needs and preferences of elderly customers. Finally, by engaging in training and learning, elderly customers are able to enhance their digital capabilities and better adapt to financial services in the digital age. These benefits will help elderly customers to adapt to and benefit from the changes brought about by digital transformation. At the same time, banks need to guide and actively support these customers by providing training and guidance to ensure that they are able to take full advantage of digital services and to ensure their trust and satisfaction (Coming of Age, 2022).

### *2.3. Improve Efficiency and Reduce Costs*

Traditional banks have existed for many years and have several advantages. They have a large customer base, a comprehensive range of financial solutions, significant development and investment research capabilities, and brand effects. However, these advantages alone don't guarantee a successful digital transformation, which is essential for taking their business to the next level (Chen & Wang, 2022). In terms of operations, banks can reduce manual operations and significantly improve efficiency by automating tasks and processing data such as loan applications, payment transactions, and asset management. In addition, technologies such as big data and AI can also help banks conduct more refined risk management and customer relationship management (Retail Sector, 2023). In terms of customer service, customers can conduct transactions and inquiries at any time and place through online and mobile banking, greatly improving the convenience of services. At the same time, banks can use AI and big data technologies to provide more personalised services, such as intelligent recommendations and predicting customer behaviour (Nimit, 2023).

In addition, digital transformation can help banks reduce operating costs. For example, automated services can reduce labour costs, remote services can reduce maintenance costs for physical outlets, and sophisticated risk management can reduce credit losses. On the other hand, digital transformation can also help banks innovate business models and develop new revenue streams (Arias, 2023). For example, through data analysis, banks can discover new customer needs and develop new financial products. In addition, banks can also embed their services into other companies' platforms or applications through partnerships with other companies to conduct business in the form of "embedded finance" and achieve revenue innovation (Kitsios et al., 2021). Although improving efficiency and reducing costs are the advantages of digital transformation, if elderly customers cannot adapt and accept this transformation, but continue to use the traditional method of going to bank outlets staffing, expenditure will increase, and efficiency will be reduced by half. Therefore, the acceptance of elderly customers and the transformation of behaviour habits are critical in the digital transformation of banks.

According to Accuracy (2022), the main advantages of traditional banks can be divided into four major sectors. First of all, in terms of resources, traditional banks have more capital power and can invest in transforming technological foundations. The second is branding. Traditional banks have more substantial brand influence and can win customers' trust. The third is the customer base. Traditional banks have accumulated a large number of customer groups for many years. Finally, there are products and solutions. Traditional banks have a more

comprehensive range of financial products and solutions that can meet the diverse needs of the customers.

Elderly people can enjoy cost-effective services as a result of reduced banking operating costs and increased efficiency in digital transformation. The introduction of automation and remote services has reduced labour costs, while transactions and enquiries via online banking and mobile apps save elderly customers time and effort by eliminating the need to visit a physical branch. Secondly, digital transformation has increased financial inclusion. Elderly people gain access to the same financial opportunities as other age groups through digitalisation, promoting financial inclusion and supporting their personal and economic development. In addition, digital transformation leads to personalised services. Through digital transformation, banks better understand the needs of elderly people and provide customised financial solutions that meet their unique financial management needs (McKinsey & Company, 2016). In summary, digital transformation helps banks to reduce operational costs and improve efficiency, providing cost-effective, convenient and personalised financial services to elderly customers and enhancing their financial management experience and satisfaction.

While the impact of fintech on retail banking and how digitisation is changing consumers' financial experiences has been extensively discussed in the literature, there is a relative paucity of research on how elderly customers adapt to and take advantage of these shifts. Particularly in the New Zealand context, a limited number of studies have specifically explored the specific challenges and opportunities faced by elderly customers in the digital transformation of retail banking. Furthermore, although the concept of the digital divide has received widespread attention in other fields, how it impacts the financial experience of elderly customers amid the fintech wave remains poorly understood. These gaps in the literature not only reveal the neglected needs of this specific group, but also provide this study with a valuable opportunity to deeply explore and understand the complex relationship between older customers and today's digital transformation of banks.

### **3. Methods**

This study uses a desk research methodology to explore the challenges and opportunities of digital transformation for older customers in the New Zealand retail banking sector using secondary data from published literature. All information and data were sourced from published articles to ensure reliability and cost-effectiveness. The sources used primarily cover the last five years of literature to capture contemporary and up-to-date information. The survey methodology designed provided an in-depth analysis of the needs and expectations of older customers in the context of digital transformation, providing essential insights and support to the banking industry in meeting the needs of older customers and helping to drive the digital transformation process in banks.

### **4. Results and Discussion**

#### *4.1. Characteristics of the Elderly Customer Group*

According to the Federal Deposit Insurance Corporation (FDIC), USA, (2021) data shows that 53% of wealth is in the hands of customers over 50 years old, who are the target customers of banks with big finance, but the elderly customers group faces multiple challenges and characteristics in digital transformation (Feiveson, 2018). First, they may face physical challenges in interacting with and operating a device, such as vision and hearing problems, reduced hand dexterity, and more (CareVision, 2017). These difficulties create additional headaches for them in using digital services, thus requiring banks to provide simplified and hassle-free designs to meet their needs. Second, about half of the elderly customers have little knowledge of digital technology security, lack an understanding of spam and online scams, and can easily become victims of online fraud (Gill, 2022). Banks should provide education and information to help seniors understand online safety and protect their financial security. In addition, some

elderly customers use older mobile devices with slower technology updates, which may affect their experience and security in digital banking services. Therefore banks must provide applications and security measures adapted to old devices (Ross, 2022).

At the same time, challenges faced by elderly customers include complex access procedures and knowledge of passwords. Access procedures for digital banks involve complex identity verification, such as possessing an ID card or driver's licence, which can be difficult for elderly customers, who tend to forget or confuse such information (Thi Xuan et al., 2022). Additionally, elderly customers expect a predictable and hassle-free experience in online banking but currently have issues switching between channels, leaving them confused and dissatisfied (Principato, 2022). Finally, while banks have adopted a combined digital and human experience approach, elderly customers significantly need more human help and support when digital service experience lags, and they are frustrated by the lack of human intervention (Infosys BPM, 2020).

#### *4.2. Needs and Expectations of Elderly Customers*

Elderly customers may face many challenges in the process of digital transformation. First of all, many elderly people have not experienced education and training in information technology, so they may feel unfamiliar and uncomfortable with new technologies and tools. In addition, their cognition and experience may be affected by age-related physiological changes, such as vision loss and memory impairment, which may make it more difficult to use digital products. In addition, security issues are also of particular concern to elderly customers. They may be more cautious about online transactions, worrying about their privacy and financial security (Knowles & Hanson, 2018). In general, elderly customers face many challenges when accepting and using digital banking services, which also means higher requirements for banks.

Elderly customers expect banking products and technology to be designed to suit their needs and streamlined, including large fonts, simple and intuitive interfaces, and efficiently operated devices. At the same time, they need more education and support to help them understand and use new digital banking products and services.

Meanwhile, elderly customers struggling with online banking expect more face-to-face banking services, such as mobile banking, pop-up banking in shopping malls, and video banking facilities in shopping malls (Crossett, 2020). To sum up, elderly customers expect banks to provide simplified and easy-to-use operation interfaces, education and support, guaranteed security, hassle-free service, personalised banking experience, and more face-to-face services to meet their needs and expectations. By addressing these needs, banks can better serve elderly customers and drive digital transformation.

#### *4.3. Acceptance of Digital Services*

Elderly customers have demonstrated acceptance of digital services in their digital transformation (Kebede et al., 2020). They are willing to try new technologies, show curiosity about digital banking, and are open to new things. However, senior citizens are very concerned about the security and fraud prevention measures of online transactions, and they need to ensure the security of digital banking platforms (Shang et al., 2022). Therefore, banks need to pay attention to security issues in digital services and provide safe and reliable platforms and information protection measures for elderly customers (Huddleston, 2022). Elderly customers need a simplified and easy-to-use experience and expect to be able to understand and operate digital banking services efficiently. They prefer simple and easy-to-understand services and want detailed guidance and support to help them adapt and use new services or products (Ross, 2022). Elderly customers want help from people and to be able to consult and ask for help by phone or face-to-face when needed. They tend to communicate directly with people, receiving real-time support and guidance. A personalised experience is also essential for elderly customers. They expect banks to

understand and pay attention to their individual needs and provide services tailored to their needs and requirements (Hirankasi, 2020). In addition, elderly customers expect banks to improve on traditional ways of serving them. They want improved letter or verbal communication, easier completion over the phone, and education and training on how to use new technology (Comfort Keepers, 2023). Banks can meet the expectations and needs of elderly customers by innovating and improving traditional service methods and providing personalised support and education (Levant, 2020).

Overall, elderly customers have demonstrated a certain degree of acceptance of digital services in digital transformation. They are willing to try new technologies but are very concerned about security (Morrison et al., 2021). They want a simplified, easy-to-use experience, human assistance, and personalised service. Banks can meet the needs of elderly customers and increase their acceptance of digital services by providing secure and reliable digital banking channels, simplifying the user interface, and providing human support and personalised service (Bianchi, 2021).

#### *4.4. Trust and Satisfaction Issues*

Earning and maintaining customer trust is essential for banks, and trust is even more critical for elderly customers. One of the main reasons why elderly people go to outlets is that there will be paper receipts when handling business in the bank. For the elderly customer, paper materials can be more reliable than electronic ones because they can be held in their hands and are seen as more trustworthy. Moreover, they may believe that any business handled in the outlets is authentic and reliable, and personal information is safe. Banks have a lot of sensitive personal and financial information, and they must ensure the security of this information (Brooks, 2021). Digital transformation can help banks better protect this information. For instance, banks can safeguard customer data from hacker attacks by adopting advanced encryption technologies and cybersecurity measures (Huddleston, 2023). Additionally, banks can earn customer trust by implementing transparent and responsible data usage policies (Maracine et al., 2020). For example, customers should be given explicit information about how their data will be used and given control over it. All of this requires constant knowledge giving to elderly customers.

Modern bank customers have higher expectations for service quality. They expect banks to provide fast, convenient, and personalised services. Digital transformation can help banks meet these expectations (Srinivas & Ross, 2018). For instance, by offering online and mobile banking services, banks can provide 24/7 access to customer accounts, allowing customers to manage their finances anytime, anywhere. Most consumers are now accustomed to frequent interactions with banks through digital channels, which is a positive reflection of improved customer satisfaction. While there is still a slight majority of consumers conducting banking transactions through branches and ATMs, online and mobile channels follow closely. According to Bennett (2023), out of all consumers, 86% utilize branches or ATMs, 84% prefer online banking, and 72% access their primary bank via mobile applications. These data indicate that digital services have become a critical factor in enhancing customer satisfaction and highlight the necessity of digital transformation to meet consumer needs. The frequency of customers who use electronic channels to log in to check bank information is much higher than the frequency of going to bank outlets to handle business (Hosseini et al., 2022). According to Deloitte (2018), the frequency of customers using mobile and online banking for business is shown in detail as follows: 18% of customers never used online banking and 23% never used mobile banking. This compared with 22% of customers who used both online and mobile banking more than 10 times per month. However, among the elderly customer groups, satisfaction with the bank's digital transformation process is shallow. First, they have a low acceptance of digital technology to change their lives, are slow to respond to the emergence of new things and resist changes in their original living habits, such as going to the bank to handle business processes. If customers went to the bank to do business in the past, they could queue up in the lobby of the outlet. Many businesses now need to make an appointment in advance by

phone or online and go to the designated time for processing. In the past, many business customers and employees met face-to-face, and they could communicate at any time during the process, but now most of the business is handled by customers in front of the computer who cannot communicate with employees (Xiao, 2021).

#### *4.5. Comparative Analysis of Elderly Customers and Young Customers*

Different customer groups may have different needs and expectations, and they may also have differences in accepting and using digital services. The needs and expectations of elderly and younger customer groups are compared in the section below, and differences in their acceptance and use of digital services are also explored. This comparison revealed a deeper understanding of customer needs and services that banks are expected to provide during their digital transformation.

#### *4.6. Needs and Expectations*

Elderly customer groups are generally more inclined to rely on traditional banking services channels, such as physical branches and human services (Hirankasi, 2020). They believe only services and products they see and hear can be trusted. Their banking needs to pay more attention to security and reliability, and they like to travel to and from familiar environments. Also, they are used to the same branch and the same group of bank employees. Elderly customers appreciate emotional interactions with bank employees when conducting their financial affairs, as this enhances their sense of trust and security (Huddleston, 2023). They prioritise the preservation and steady growth of their wealth. However, financial product forms vary and change with each passing day. Elderly customers may find it difficult to accept and understand complex financial products, and it is difficult for them to understand after face-to-face explanations by bank employees (Levant, 2020). Usually, they follow the recommendations of familiar bank employees. Therefore, after the complete electronic transformation, elderly customers must give up purchasing and allocating some financial products. Therefore, the product needs of elderly customers are more inclined to simple, intuitive, and easy-to-understand products (Ellis & Marshall, 2019).

In contrast, the young customer group, especially the generation of digital natives, no longer entangles with whether the bank can provide paper vouchers and no longer entangles with whether they can handle business face-to-face to have a sense of security. They pay more attention to the preservation of electronic files. There are high requirements for the acceptance of digital banking services and the timeliness of business processing. They have limited time and want to be able to conduct banking transactions anytime and anywhere, and they prefer to use online or mobile banking for operations (Frąckiewicz, 2021). Their expectations of service are instant, convenient, and personalised. They also have more needs for banking business types, such as deposits, credit cards, loans, and other non-financial services. They are curious about financial knowledge, like to spend time searching and acquiring new knowledge on the Internet, try new financial products and services, such as virtual currency, investment, and wealth management platforms, and are more willing to make independent decisions. Younger customers seldom walk into branches and thus lack an emotional connection with bank staff, which leads to lower loyalty (Sarina, 2021). At the same time, young customers show interest in understanding market activities, which will influence their choice of different banks. It is easier for them to switch the bank they primarily use.

#### *4.7. Differences in Acceptance and use of Digital Services*

Different customer groups have different acceptance and use of digital banking services. The age difference is an essential aspect of this. Data show that elderly generations are more likely to talk to a bank teller as their primary way of accessing accounts than younger generations (Bennett, 2023). According to the FDIC (2021), age still plays a significant role in customers using traditional in-person services. Table 1 presents the percentage of different age



groups using in-person banking, online banking and mobile banking services, providing insights into the adoption of digital banking among various age demographics. This table indicates the usage patterns and preferences of different age segments in accessing banking services digitally. Just 15.3% of those aged 65 or over primarily use mobile banking, while nearly three-quarters of 15- to 24-year-olds say it is their primary banking method. Regarding technological proficiency, young people are generally more familiar with digital technology due to their frequent use of electronic devices and are more likely to adopt and master new digital services. They are more willing to try new features and tools and have a better understanding and ability to deal with technical challenges. In contrast, some elderly customers who seldom use electronic devices may lack experience and confidence in digital technology, and interface engineers often do not know where to start. Therefore, they need more training and support before using digital services. In terms of preference for using banking services, young people prefer to use mobile apps and online banking for quick and convenient transactions and inquiries, while some older people prefer face-to-face services and human support. They are more inclined to resolve issues and conduct business over the phone or in a physical location. According to FDIC (2021), out of customers aged 15 to 24, 4.1% use bank counter services, 6.3% use online banking services, and up to 74.1% use mobile banking services. As people age, the proportion of bank counter services gradually increases while the proportion of mobile banking services decreases. Among customers over 65, 30.5% use bank counter services, while only 15.3% use mobile banking.

**Table 1.** Percentage of Customers who Primarily use Different Banking Services Based on Age.

Age group	Percentage who primarily use:		
	In-person banking service	Online banking	Mobile Banking
15-24	4.1%	6.3%	74.1%
25-34	4.8%	12.9%	69.4%
35-44	6.3%	18.4%	60.5%
45-54	9.9%	22.8%	49.1%
55-64	16.5%	27.3%	33.2%
65+	30.5%	28.2%	15.3%

*Note: data extracted from FDIC (2021).*

Security and privacy concerns are also an area of difference based on age. Young people may be less concerned about digital safety and privacy issues and more willing to share personal information on digital channels. In contrast, due to the lack of timely understanding of current technological developments and lower risk tolerance of the elderly, concerns about security and privacy may be more prominent, and they are more cautious in protecting personal information, which negatively impacts digital banks' security—higher requirements (Zaheri, 2022).

Finally, cultural differences may also lead to differences in customers' acceptance and usage of digital services. Customer groups with different cultural backgrounds may pay more attention to interpersonal relationships and face-to-face communication and are less dependent on digital services (Bennett, 2023). Table 2 presents in the percentages of individuals in the United States using e-banking services based on different family income and education levels over multiple years. The data in Table 2 are extracted from a report published by FDIC (2021). It shows the usage patterns of physical bank branches, mobile banking, and online banking among different socioeconomic groups. In terms of annual household income, households with an annual income of less than \$15,000 are more likely to use bank counters than households with annual incomes of more than \$75,000, and use of electronic banking is relatively low. However, from 2019 to 2021, households of different income levels have shown the same change trend: the utilisation rate of bank counters has gradually decreased, while the utilisation rate of electronic banking has continued to rise. From the perspective of education level, groups with lower education levels use bank counters more, while the utilisation rate of electronic banking is relatively low. But equally, in the past three years, regardless of the level of education, there has been a growing trend of shifting from bank counters to electronic banking.

**Table 2.** Percentage of Family Income and Education of those who Use Different Areas of Banking.

Characteristics	Bank teller			Online banking			Mobile banking		
	2019	2021	Difference (2021-2019)	2019	2021	Difference (2021-2019)	2019	2021	Difference (2021-2019)
All	21.9	14.9	-6.0	22.8	22.0	-0.8	34.0	43.5	9.5
<b>Family Income</b>									
Less Than \$15,000	35.9	24.9	-10.9	9.9	9.9	0.0	23.5	33.9	10.4
\$15,000 to \$30,000	31.7	24.8	-6.9	12.7	13.0	0.4	25.9	33.4	7.5
\$30,000 to \$50,000	24.7	19.5	-5.2	17.1	17.4	0.3	33.2	39.4	6.2
\$50,000 to \$75,000	20.3	14.5	-5.8	21.2	20.3	-0.9	35.9	44.9	9.1
At Least \$75,000	13.1	8.3	-4.8	32.1	29.7	-2.5	38.1	49.3	11.2

To sum up, age, technical proficiency, usage preference, security and privacy concerns, and cultural differences are all critical factors affecting customers' acceptance and use of banking digital services. Banks need to understand and target the characteristics and needs of different customer groups and provide diversified services and support to meet the needs of various customers and promote the success of the digital transformation.

## 5. Recommendations

### 5.1. Comprehensive Strategies to Improve the Trust and Satisfaction of Elderly Customers

The establishment of transparent and proactive communication channels to communicate effectively with elderly customers is important in order to explain digital services' benefits, security, and privacy protections. When explaining the security measures of digital services, banks must emphasise the specific security measures provided, such as data encryption algorithms and strict security certification standards. This will help to enhance the trust of elderly customers in digital services (Pristiyono et al., 2022).

Implementing strategies providing elderly customers with personalised services and solutions tailored to their needs and preferences is essential. Banks should take on board customer feedback and suggestions, and continuously improve and adjust services to provide a better experience. At the same time, bank employees are encouraged to treat elderly customers with kind, patient, and warm language and attitudes, creating a friendly and warm service atmosphere (Eriksson et al, 2020).

To help elderly customers master basic digital skills and knowledge, banks can provide education and training on digital services (ANZ, 2021). Regular training events and workshops are held to answer questions and provide further guidance and support (Office for Seniors Te Tari Kaumātua, 2023). At the same time, strengthening the real-time fraud detection and monitoring mechanisms of digital banks will improve elderly customers' awareness of the safety and reliability of digital services (Mbama et al., 2018).

Banks should continue to improve and innovate, continuously optimise digital services based on the feedback and needs of elderly customers, and provide a more convenient, secure, and personalised banking experience. This will allow elderly customers to feel that the bank is up-to-date and willing to continue using and trusting digital services. Banks can also work with community partners to build support networks for elderly customers (Bank of New Zealand, 2022). These partners can provide training courses, lectures, and support groups to help elderly customers better adapt to and utilise digital services. For example, banks can cooperate with local elderly centres

to hold digital technology training courses and lectures, provide elderly customers with a learning and communication platform, help elderly customers understand the advantages and usage methods of digital services, and at the same time, establish closer contact and cooperation (Pristiyono et al., 2022).

## 5.2. Provide Exclusive Digital Service Solutions for Elderly Customers

In order to allow elderly customers to adapt better to digital transformation, banks can adopt the following solutions and suggestions:

First, establish transparent and proactive communication channels with elderly customers to explain digital services' benefits, security, and privacy protections. Provide easy-to-understand information and instructions, made into instructional videos on different topics, clearly explaining how banks handle customers' personal and financial information (Eriksson et al., 2020). Let elderly customers have opportunities and channels to put forward their needs and increase interaction. Eriksson et al. (2020) found that transparent and positive communication is critical to enhancing trust and satisfaction among elderly customers.

In order to help elderly customers master basic digital skills and knowledge and prevent digital fraud, banks can provide education and training in digital services. Banks can help elderly customers master the knowledge of mobile banking apps, conducting online transactions, and preventing phishing, scams, and identity theft by providing educational videos and human customer service (Snyder, 2023). Regularly hold training activities and workshops in the community, answer questions people may encounter on the spot, and use electronic devices to provide further guidance and support. Through training courses and community workshops that provide digital services, elderly customers can better adapt to and utilise digital services and improve their digital skills and confidence (Office for Seniors Te Tari Kaumātua, 2023).

Secondly, provide personalised services and solutions suitable for elderly customers, customise according to the specific needs and preferences of elderly customers, set up different interface versions, automatically identify the system according to the age of customers, and provide an exclusive version for elderly customers (NZBA, 2021). For example, the interface is simple and clear, and banking services that are not suitable for elderly customers are hidden on the page, super large fonts, facial and fingerprint recognition, one-click login, and online listening to customer feedback and suggestions. Banks must continuously improve and adjust services based on their feedback, to provide a better experience. Customers with visual impairments want a simple and stable interface that retains accessibility features like a tactile keyboard that helps with orientation. Banks can adopt accessibility designs to make banking more convenient for elderly customers (Veritran, 2022). In addition, elderly customers need personalised services, and banks can provide them with more personalised services and support through voice biometric technology and other methods.

In order to meet the needs of elderly customers in digital services, human support options such as telephone hotlines or online chats are retained, and dedicated customer service personnel are assigned to enable continuous communication. At the same time, customer service personnel should be trained to understand and communicate effectively with elderly customers and provide friendly, patient, and professional support. Elderly customers are very concerned about the security of online transactions, so banks should provide secure means of online transactions, such as biometrics, to provide more security and reduce the possibility of identity theft (Melamedov, 2020). According to research, providing human support options and training customer service personnel can significantly increase elderly customers' satisfaction and trust in digital services (Berraies et al., 2017).

Finally, digital banks should strengthen their security measures, including two-factor authentication (For example, one-click login plus facial recognition), mobile phone verification code authentication, transaction SMS prompts, real-time fraud detection, and data encryption, to emphasise security and privacy protection (Ross, 2022). To safeguard elderly customers from potential fraud, banks could implement additional verification measures when

they attempt to transfer funds to unfamiliar recipients. For instance, a confirmation call could be made to their children or designated guardians. Given the heightened concerns, elderly customers have doubts about digital service security and privacy, such enhanced security protocols could significantly boost their confidence (Mbama et al., 2018).

By adopting these complete service solutions, banks can better meet the needs of elderly customers in digital transformation, help them adapt to and utilise digital services, improve their trust and satisfaction with digital services, and promote digital transformation success (Pristiyono et al., 2022).

## 6. Conclusion

This article describes the current state of retail banking in New Zealand and the drivers of digital transformation. It focuses on the challenges and opportunities faced by elderly customers in digital transformation and conducts a comparative analysis with young customers. For elderly customers, strategies to improve trust and satisfaction are proposed, as well as exclusive digital service solutions for the needs of elderly customers. In the future, banks' digital transformation will continue to be promoted. Changes in customer needs, technological development, and efficiency improvements will drive the banking industry toward digital transformation. Banks will be committed to providing better quality and convenient digital services and strengthening customers' digital security and privacy protection to meet the needs of different customer groups. Therefore, the banking industry should fully consider the needs and characteristics of elderly customers during digital transformation and improve the acceptance and satisfaction of elderly customers with digital services by providing complete digital service solutions, improving user experience, and strengthening trust and satisfaction. At the same time, the banking industry needs to continue to pay attention to technological development and innovation, actively adapt to changes in customer needs, promote banks' digital transformation, and provide better, more convenient, and safer banking services.

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## Conflict of interest

All the authors claim that the manuscript is completely original. The authors also declare no conflict of interest.

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