THE FUTURE OF FINANCE IS INCLUSIVE

GROWING NEED FOR FINANCIAL ORGANISATIONS TO DESIGN AND DEVELOP FINANCIAL PRODUCTS FOR A DIVERSE SET OF CUSTOMERS

By: Pooja Kheterpal

Submitted to OCAD University in partial fulfilment of the requirements for the degree of Master of Design in Strategic Foresight and Innovation Toronto, Ontario, Canada, 2024

Copyright Notice

This work is licensed under attribution-Non-commercial 4.0 International (CC BY 4.0).

To view a copy of this license, visit: https://creativecommons.org/licenses/by-nc-sa/4.0/

You are free to:

Share — copy and redistribute the material in any medium or format

Adapt — remix, transform, and build upon the material The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

Non-commercial — You may not use the material for commercial purposes.

Share Alike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.

No additional restrictions — You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

Notices:

You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation. No warranties are given. The license may not give you all the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material.

ABSTRACT: Inclusivity in Financial Products by Financial Organisations

In the rapidly evolving financial services landscape, ensuring inclusivity has become a pivotal goal. This paper examines the importance of inclusivity in financial products and services, focusing on strategies to bridge gaps that exclude marginalized populations.

By conducting an extensive review of literature, case studies and primary research, this study aims to explore diverse perspectives on financial management across various demographic groups. It underscores the importance of developing and designing products that cater to diverse needs and addressing barriers like accessibility, age, gender, literacy levels, cultural considerations, economic status, risk-taking ability, money management, and financial acumen. By exploring the significance of inclusive financial services, this paper sheds light on fostering financial empowerment, enhancing economic participation, and ultimately contributing to more equitable societies and growing economies.

FinTech Organisations specifically Startups are now reaching out to a completely new group of users like the ageing population, teenagers, rural population (especially women) etc. Banks have very few old-school products for them. This part of the population has never accessed services like wealth management, digital banking, credit cards, P2P lending, stock trading etc. I need to research and learn the diverse needs of people, key criteria used to customise products, and how better design can help FinTech capture this group of people, and not only onboard them to their apps but also help them use the software smoothly. With design thinking FinTech organisations can understand a user problem, define and analyze it and engage users at every touchpoint.

Inclusivity in financial product design is not only a matter of social responsibility but also a strategic imperative. It can lead to economic growth, reduced inequality, improved customer relationships, and a more resilient financial system. Moreover, it aligns with ethical and legal considerations, making it essential for both financial institutions and society at large.

ACKNOWLEDGEMENTS:

I want to express my sincere gratitude to my Primary Advisor, **Fenton Jagdeo, Jr.** for his invaluable guidance and encouragement in writing this paper. His expert feedback helped shape my understanding and approach to the subject matter.

I am profoundly grateful to my parents for being my unwavering pillars of support, to my beloved daughters, Aarushi and Amaira, for being my constant source of strength, and to my friends and peers for their valuable companionship. Their love and encouragement have been the driving force behind my journey, and I am deeply touched by their steadfast presence in my life.

TABLE OF CONTENTS:

1.	INTRODUCTION	7
2.	HYPOTHESES	10
3.	LITERATURE REVIEW:	12
3	3.1 KEY TERMS	12
3	3.2 IMPORTANT TAKEAWAYS FROM THE LITERATURE REVIEW	15
F	ROLE OF FINTECH ORGANISATIONS:	21
4.	RESEARCH QUESTIONS	24
5.	RESEARCH METHODS	25
5	5.1 SEMI-STRUCTURED INTERVIEW	25
Ę	5.2 EMPATHY MAPS	28
6.	DIVERSITY AND MONEY MANAGEMENT	35
7.	MONEY MANAGEMENT & DIGITISATION	37
8.	THE NEED TO DESIGN FOR DIVERSITY	39
9.	HUMAN CENTRED DESIGN	45
10.	. DESIGN THINKING	47
1	10.1 DESIGN THINKING AND INCLUSIVE FINANCIAL PRODUCTS	49
11.	BUSINESS MODEL CANVAS	57
•	11.1 VALUE PROPOSITION CANVAS	58
•	11.2 BUSINESS MODEL CANVAS	62
1	11.3 PROFITABILITY - INCLUSIVE BUSINESS MODEL	63
1	11.4 INCLUSIVE BUSINESS MODELS AND ECONOMIC GROWTH	65
12	. USE CASES OF DESIGN THINKING	69
13.	. BARRIERS TO CREATING INCLUSIVE BUSINESS MODELS	75
14	BIBI IOGRAPHY:	80

LIST OF FIGURES:

Figure 1- FinTech adopters as a % of digitally active population in each market	22
Figure 2- Funding Raised by Fintech Firms by Province	23
Figure 3- Rich Diversity in Canada	27
Figure 4- Format of an Empathy Map	28
Figure 5- Human-Centred Design Process	46
Figure 6- The Double Diamond model of Design Thinking	46
Figure 7- Design Thinking 101	48
Figure 8- Design Thinking- A non-linear process	54
Figure 9- Business Model Canvas- Inclusive financial products	57
Figure 10- The Value Proposition Canvas for the Elderly	58
Figure 11- The Value Proposition Canvas for rural Indigenous persons	59
Figure 12- Value Proposition Canvas for women	60
Figure 13- The Value Proposition Canvas for urban, rich, educated, affluent men	61
Figure 14- Median travel distance to a branch of a financial institution for Canadians.	66

LIST OF TABLES:

Table 1 Empathy Map of an Elderly Person	. 29
Table 2- Empathy Map of an Urban Woman:	
Table 3- Empathy Map of an Indigenous Person	.32
Table 4- Empathy Map of an Educated, Urban, Affluent Man	.34

1. INTRODUCTION

Consumers in Canada have varying financial needs, goals, and preferences influenced by factors such as age, income, education, gender, culture, life stage etc. The immigrant population is expected to be one-third of the total by the end of 2024. Further, consumers understand money differently and their attitude and relationship with money may vary. Culturally, individuals may have different attitudes towards money, for instance, some prefer debt while others are completely debt averse.

The 2023 Financial Stress Index indicates an uptick in money-related stress, showing that Canadians are increasingly identifying money as a primary source of stress in 2023 (40%) compared to the previous year (38%) (FP Canada, 2023). Despite efforts by financial experts and institutions to promote financial well-being among Canadians, the unique needs of diverse customers often go unaddressed, resulting in a significant gap in financial knowledge and wellness, and a missed chance for financial institutions to better serve this demographic. With the help of this MRP, we hope to raise awareness of the needs of a vast range of people when it comes to money management and to promote the creation of software, programs, and financial data that are user-friendly for a wide range of clients, so that every Canadian can achieve financial well-being.

The foremost negative consequences of financial stress on Canadians' lives are anxiety, depression, and mental health difficulties, affecting 36%

of individuals. (FP Canada, 2023) These stresses are known to intensify anxiety, sadness, and a lessened feeling of optimism for the future, which hurts societal well-being. On an average, the household debt in 2019 denotes 177% of the disposable income of Canadians. This has increased from 168% in 2018 (Statistics Canada, 2019)

Creating products that address this variety while sustaining a profitable business model and adhering to regulations is a multifaceted endeavor. Not all consumers possess equal levels of financial knowledge; some may find it challenging to grasp intricate financial offerings and their associated risks. Ensuring products are both accessible and understandable to a diverse audience presents a substantial challenge. Moreover, compliance with diverse laws and regulations, which vary by region and evolve over time, further complicates product design and distribution.

The current one-size-fits-all approach to financial products and services misses opportunities for financial institutions and leaves consumers with varying financial backgrounds and functioning styles. This leads to economic fragility on both a personal and societal level. Financial institutions need to recognize and accommodate these differences. Even with the quick transition to mobile and internet banking, accessibility and user-centred design are still frequently disregarded, which creates major obstacles for people of all backgrounds. Organizations in the public and private sectors, including banks, must now urgently emphasize digital accessibility to guarantee that their platforms are accessible to all users. As an example, an emerging pattern in technology innovation and advancement involves the creation of software aimed at aiding the diverse

needs of both customers and employees with neurodiversity. (Graham, 2022). This is a great chance for banks to provide guidance and support that is specific to the needs of their neurodivergent clients, enabling them to confidently make well-informed financial decisions.

Evaluating and controlling risk is essential when designing financial products. Various consumer groups may exhibit distinct risk profiles, necessitating products designed to mitigate risks accordingly. Additionally, although digital financial services provide convenience, not all individuals have internet access or digital devices. Addressing the digital gap and ensuring fair access to financial services pose significant challenges.

There appears to be a need to design financial products to promote inclusion and reduce disparities in order to address the diverse population of Canada. This includes addressing the needs of under-served and marginalized populations, including low-income individuals, minorities, women, indigenous people, gender-diverse individuals, and those living in remote areas.

2. HYPOTHESES

Our hypotheses served as a foundation to help shape our enquiry and facilitate analysis. It not only confirmed existing theories but also stimulated further research in the field. Before we started our research, it was imperative to analyse existing theories or beliefs.

Hypothesis 1: Individuals exhibit diverse needs, including varied relationships with money. The wide range of financial requirements and preferences among people from different demographic, cultural, and socioeconomic contexts calls for the creation and delivery of inclusive financial products. By customizing financial offerings to tackle the unique challenges and objectives of diverse customer segments, financial institutions can successfully bridge current disparities in access and engagement, thus promoting increased financial inclusion and fair distribution of wealth within society.

Hypothesis 2: Offering inclusive financial products customized to meet the unique requirements and preferences of a wide range of customers, encompassing individuals from diverse socioeconomic backgrounds, various cultural environments, and those with disabilities, will result in enhanced financial inclusion, better access to vital financial services, increased economic empowerment, and ultimately, bolster societal welfare.

Several biases may influence these hypotheses that the diverse needs and preferences of a heterogeneous customer base not only catalyze the development and implementation of inclusive financial products but also contribute to overall societal well being. Some of them are as follows:

- 1. **Confirmation Bias:** Proponents of diversity-driven financial inclusion may selectively focus on supportive evidence, potentially ignoring counter examples or alternative explanations, and interpreting data to affirm existing beliefs, overlooking contradictory evidence.
- 2. **Socioeconomic Bias**: Those advocating for inclusive financial products may prioritize certain socioeconomic groups' needs over others, potentially neglecting the diverse needs of all segments.
- 3. **Outcome Bias:** Researchers might assess the success of inclusive financial products solely based on intended outcomes, neglecting potential unintended consequences.
- 4. **Availability Bias:** Stakeholders may be swayed by readily available data supporting their hypothesis, while disregarding less visible information that challenges or complicates their perspective, often overlooking the needs of underrepresented groups.
- 5. **Language Bias:** Language barriers may lead to biases where the terminology used in research or product development fails to accurately represent diverse customers' financial needs.

Addressing these biases requires careful consideration of research methodologies, data collection techniques, and analytical frameworks to ensure that the study accurately reflects the diverse perspectives and experiences of the target population.

3. LITERATURE REVIEW:

A thorough Literature Review serves as the backbone of a research paper and provides essential context and insights. Not only does it aid in clarifying definitions of various terms, it also helps in identifying knowledge gaps, comprehending methodologies, deciphering key findings, providing current updates and understanding plans.

Literature Review for this research paper helped in identifying the existing body of knowledge relevant to the research topic on financial inclusion. By reviewing previous studies, reports, publications, websites and government initiatives, I gained insights into the current state of research, key concepts, theories and methodologies employed in the field.

3.1 KEY TERMS

The first step in literature review was to define key terms. Here is what I found:

Financial Literacy: The government of Canada website Canada.ca defines Financial Literacy as having the knowledge, skills and confidence to make responsible financial decisions. It also talks about the understanding of financial concepts and products needed to make informed financial decisions, manage personal finances effectively, and participate fully in the financial system.

Financial Products: Financial products refer to a broad range of instruments, services, and contracts offered by financial institutions,

companies, or organizations to help individuals, businesses, and governments manage their finances, invest their money, and achieve specific financial goals. These products can include traditional banking services such as savings accounts, checking accounts, and certificates of deposit (CDs), as well as lending products like mortgages, personal loans, and credit cards.

Fintech Organisations: Fintech organizations, short for financial technology organizations, are companies that leverage technology to provide innovative financial products, services, and solutions. These companies often disrupt traditional financial services by offering streamlined, user-friendly, and cost-effective alternatives. Forbes Magazine defines Fintech as a catch-all term for technology used to augment, streamline, digitize or disrupt traditional financial services. Fintech companies are pushing established financial institutions to modernize and adapt to the digital era while also causing major changes in the financial landscape by encouraging financial inclusion, innovation, and competition (Cole, n.d.).

Diverse Customers: Diversity in customers of financial products refers to the presence of varied individuals or groups with different demographic, socioeconomic, cultural, and behavioural characteristics who engage with financial products and services offered by banks, fintech companies, insurance providers, investment firms, and other financial institutions

Financial Inclusion: World Bank defines Financial Inclusion as follows: "Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way."

Inclusive Financial Products: Inclusive Financial products are made to accommodate the many requirements and situations of people from all walks of life, especially those who have historically been marginalized or shut out of the conventional financial system. By offering relevant, inexpensive, and easily accessible financial services to people who might otherwise find it difficult to obtain mainstream financial goods, these products seek to advance financial inclusion. Some examples are Mobile Banking, Digital Wallets, peer-to-peer lending, Financial Literacy programs etc.

3.2 IMPORTANT TAKEAWAYS FROM THE LITERATURE REVIEW

During financial aid discussions and macroeconomic consultations, the IMF and World Bank have consistently advocated for financial sector reforms with a specific emphasis on enhancing financial inclusion. This is particularly crucial in developing regions such as Asia, Africa, and South America. Financial inclusion is a multifaceted concept aimed at facilitating affordable access to formal financial services, which can significantly enhance the welfare and overall economic growth of a nation. (World Bank, 2022) Typically, families and small to medium-sized enterprises are the primary targets as they often lack access to financial services altogether or have very limited access.

In October 2018, during their annual meetings, the World Bank and IMF introduced the Bali Fintech Agenda as a strategy to expedite financial inclusion efforts. Comprising twelve high-level principles, this Agenda serves as a framework for member states to develop appropriate regulations harnessing the benefits of financial technology (fintech) to extend banking services to the unbanked population while mitigating associated risks. (Wharton School, 2019)

Significant progress has been achieved in promoting financial inclusion, with the number of adults lacking access to an account decreasing consistently from 2.5 billion in 2011 to 1.7 billion in 2017 and further down to 1.4 billion in 2021. (World Bank, 2022)

3.2.1 Women and Financial Inclusion: As per the Global Findex report of 2014, women worldwide are 20% less likely than men to have a bank account and 17% less likely to receive a formal financial loan (Cabeza-García et al., 2019). By using empirical analysis, the study "Female Financial Inclusion and its Impacts on Inclusive Economic Development" shows a positive relationship between financial inclusion for women and economic growth. The research shows that better economic development results from increased financial inclusion for women by looking at factors like credit card and bank account access. The results emphasize how important it is to give women access to financial services because doing so not only increases their financial independence but also lowers poverty, boosts productivity, and encourages sustainable growth. Overall, the study emphasizes how important it is for women to have access to financial services in order to promote equitable economic growth and gender parity in the financial industry.(Cabeza-García et al., 2019)

3.2.2 Old and the Elderly: Due to their increased education, physical activity, and involvement in socio-cultural activities, older customers today make up an appealing target market for innovative and customized financial solutions. Second, people are becoming more conscious of and knowledgeable about their choices since they have access to a lot of information and purchasing power. The senior population is growing at an astonishing rate, and it has a sizable market share, yet few businesses are aware of its unique needs. (Remes et al., n.d.)

Fintech companies that target the old people often focus on two objectives: safeguarding the financial security of older adults without compromising their independence.

"The attractiveness of this market for old people is deemed fairly high", as stated by Elizabeth Loewy, Co-founder of Eversafe, a fintech startup. Her startup has committed to the goal of safeguarding senior citizens from financial fraud and deceit by employing algorithms to uncover suspicious activities within their bank accounts.

Similarly, the Senior Money Project offers complimentary educational videos to elderly individuals, aiding them in recognizing scams and fraudulent ploys. Moreover, EverSafe surpasses these efforts by utilizing its software to scrutinize banking data, pinpointing any anomalies such as uncommon expenditures, frequently involving significant sums, the introduction of new credit cards, pending transactions, and so forth.

Financial Exclusion: Canadian Banks may be unknowingly contributing to financial exclusion for low-income communities by implementing processes and introducing financial products that make it tough for these individuals to access basic banking services. Low-income individuals are denied services like overdraft protection, lines of credit etc. There are conditions like minimum balances and high NSF (non-sufficient funds) fees. Sometimes banks close down their branches in low-income neighbourhoods forcing residents to rely on fringe institutions like payday lenders and the unorganised sector. (Acorn Canada, 2016)

The paper by Prosper Canada, 2015 investigates how Fintech innovations can improve underprivileged populations' access to financial services. It appreciates the potential advantages of using technology to remove structural obstacles that keep people from fully engaging in the conventional banking system. It also emphasizes how crucial it is for government agencies, industry associations, and regulatory organizations to work together to build an ecosystem that fosters Fintech development. On the other hand, Prosper Canada 2015 also proclaims that the financial industry is becoming increasingly sophisticated, and instead of being provided in-person at traditional "bricks and mortar" branch structures, financial products, services, and advice are increasingly being provided through technology channels. These changes also raise the possibility that restrictions will cause low-income individuals and other vulnerable groups to be excluded and left behind.

Financial literacy support services are integral to a broader range of efforts aimed at improving the financial well-being of **immigrants in Canada.** These resources play a vital role in helping individuals and families identify avenues for assistance and develop strategies to achieve significant life goals, such as homeownership, education, entrepreneurship, and retirement savings. Additionally, by offering guidance on managing common financial challenges, such as assuming debt for sponsored family members or sending money overseas, financial education can also benefit established immigrants. Therefore, for programs to effectively enhance financial well-being, it is essential that financial education initiatives are customized to address the specific needs of newcomers in culturally appropriate ways.

Financial inclusion promotes socioeconomic growth and lowers poverty rates both nationally and among individuals. It also provides direction for improving the efficiency with which monetary policy is implemented and stabilizes the nation's financial system. Tanzania, one of the developing nations, understood the importance of financial services, as evidenced by its 2020–2025 national development strategy and plans for reducing poverty. It is impossible to overstate the importance of financial services, particularly for the underprivileged and impoverished, who are largely ignored by established financial institutions. Consequently, their limited resources prevent them from taking advantage of investment opportunities that might enable them to break free from poverty circles (Mandell & Klein, 2009).

And there is also Financial Exclusion: Financial exclusion is the inability to obtain essential financial services in a suitable manner as a result of issues with accessibility, terms, costs, and marketing, or self-exclusion as a reaction to depressing experiences or views of people or organizations. (Sinclair, 2001)

Similarly, Chant Link & Associates, (2004) explains Financial exclusion as consumer's inability to obtain suitable, affordable, equitable, and secure financial products and services from mainstream suppliers. Concerns about financial exclusion have been raised in the community because it affects consumers with lower incomes and/or those who are experiencing financial hardship.

People who are financially excluded frequently display certain traits, such as not having a bank account or the financial services that go along with it. In a similar vein, depending on nontraditional credit sources like doorstep lenders and pawnbrokers. absence of other important financial items including pensions, savings plans, and insurance. As a result, those who lack access to fundamental financial services will probably have to pay more for money management services.

They may also find it cumbersome to plan for the future while becoming over-indebted and being financially stranded.

ROLE OF FINTECH ORGANISATIONS:

Fintech seem to play a crucial role in creating and designing inclusive financial products for diverse customers by leveraging technology to overcome traditional barriers and meet the unique needs of underserved populations. Fintech companies can develop innovative digital platforms and mobile applications that provide accessible and user-friendly interfaces, catering to customers with varying levels of digital literacy and accessibility needs. These platforms can offer a wide range of financial services, such as banking, payments, lending, and insurance, tailored to the specific requirements of diverse demographics, including rural residents, individuals with disabilities, and marginalized communities.

Additionally, Fintech solutions enable personalized financial services through data analytics and artificial intelligence, allowing for the customization of products and experiences based on individual preferences, behaviors, and circumstances. This personalization enhances the relevance and effectiveness of financial products for diverse customers, fostering greater engagement and satisfaction. Moreover, Fintech companies can address financial inclusion challenges through innovative business models and partnerships, collaborating with traditional financial institutions, government agencies, nonprofits, and community organizations to reach underserved populations and provide targeted solutions.



Figure 1- FinTech adopters as a % of digitally active population in each market.

Source: EY Global FinTech Adoption Index 2019

Belgium and Luxembourg

France



Figure 2- Funding Raised by Fintech Firms by Province

Source: Ivey Business School, 2024

Data indicates that in the past decade, FinTech companies in Canada have secured more than \$18 billion through approximately 1100 transactions, including investments from angel investors, early-stage and late-stage venture capital funding, Private Equity investments, and proceeds from public offerings (both initial and subsequent). Nearly one-third of the total funding within the industry was obtained in 2021 alone, reflecting a surge in funding throughout the technology sector. (Dasgupta, S., 2024).

4. RESEARCH QUESTIONS

Primary Question:

How can Fintech Organisations use design thinking principles to create inclusive Financial Products that can benefit diverse consumers and lead to economic growth?

Subsidiary Questions:

- Understanding Money Management and diverse attitudes towards money
- 2. Analysing various current financial products in the market catering to diverse needs
- 3. Barriers to creating customised products
- 4. Frameworks and wireframes for creating such products.
- 5. Digital products meeting accessibility needs

RESEARCH METHODS

Recognizing the complex interplay of factors influencing financial inclusion, there was a need to adopt a comprehensive approach that integrates qualitative and quantitative research methods. We aimed to capture the nuanced needs and preferences of diverse customer segments, while also assessing the impact of inclusive financial products on their financial well-being and economic empowerment.

During the literature review, I realised that there is interesting and insightful information available in various research papers and academia that will help me gather insights about the research topic(s). So, to begin, I conducted an extensive review of existing literature on financial inclusion, inclusive finance, and the design and implementation of inclusive financial products. This literature review served as the foundation for identifying key research gaps, theoretical frameworks, and methodological approaches relevant to our study objectives.

5.1 SEMI-STRUCTURED INTERVIEW

Next, semi-structured qualitative interviews were conducted with a diverse sample of participants, including individuals from varying cultural backgrounds, income levels, and geographic locations. This enabled us to explore the nuanced perspectives and lived experiences of participants regarding their interactions with financial institutions, their access to financial services, and their utilization of inclusive financial products. Throughout the research process, we remained attentive to ethical

considerations, ensuring the confidentiality and anonymity of participants, and obtaining informed consent prior to data collection.

As a primary and growing method in our research, we chose to conduct discussions with industry informants and specialists on our topic. This approach was selected for its ability to provide in-depth, nuanced insights that are often unattainable through other research methods. Engaging directly with specialists allowed us to tap into a wealth of experiential knowledge and perspectives, offering a rich view of the topic at hand. These discussions are particularly valuable in exploring complex and evolving fields, where firsthand experiences and expert opinions can illuminate trends, challenges, and opportunities that might not be evident in quantitative data or literature.

A questionnaire was filled by representatives of financial organizations like TD Bank, Scotia Bank, RBC and Questrade Wsealth Management followed by a semi-structured interview over a video call for clarifications. This engagement with relevant stakeholders helped me gather diverse perspectives and validate our findings. This also updated me on the various initiatives being taken by financial organisations to cater to the diversity of various customers of its financial products.

By using a multifaceted method for gathering and analyzing data, our objective is to offer a thorough comprehension of the opportunities and obstacles linked with inclusive financial products. Furthermore, we seek to explore their capacity to foster financial inclusion and empowerment across various customer demographics.



Figure 3- Rich Diversity in Canada

Source: Image created on Solidarity.ai

5.2 EMPATHY MAPS

Using an Empathy Map helps in grasping the user's requirements as we strive for a more profound comprehension of the diverse individuals. Numerous methods exist to cultivate this level of empathy, and an Empathy Map serves as an important tool. It facilitates empathy and synthesis of observations gathered during the research phase, enabling the extraction of unexpected insights concerning your user's needs.

Empathy maps play a valuable role in design thinking and product development. By exploring the user's thoughts, emotions, verbal expressions, and behaviours, they provide a comprehensive understanding of the user's experience. Here we strive to create Empathy Maps for 4 diverse individuals – Elderly Rural Man, an Urban woman, an indigenous person and an urban affluent man. Following is a format of an Empathy Map:

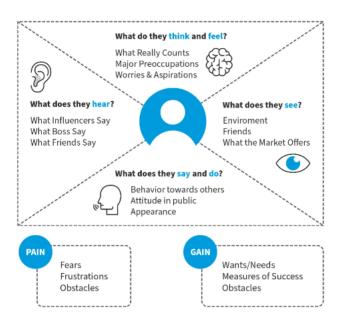


Figure 4- Format of an Empathy Map

Source: Interaction Design Foundation

5.2.1 Empathy Map of an Elderly Person:

THINKS & FEELS

- * Confusion & Frustration about complex financial terms
- * Difficult to follow technology and software applications
- * Apprehensive about cyber security & spam
- * Thoughts about financial security, retirement planning, and ensuring a stable future
- * Not adequate financial opportunities specifically for the elderly.

SEES

- * Struggling to read fonts on websites & apps
- * Difficult to comprehend diagrams and graphs
- * Long complicated list of terms and conditions
- * Frequent Spam messages
- * Most advertisements aim at young people

HEARS

- * Discussions with other elderly friends / relatives
- * Concerns about accessibility & reliability of financial institutions.
- * Advice or recommendations from family members, friends, or financial advisors.
- * News about Cyber attacks & risks

DOES

- * Visits physical bank branches for assistance.
- * Utilizes assistive technologies & seeks resources to aid financial decision making.
- * Ends up keeping all money in Saving accounts and not investing in other instruments
- * Avoids med to high risk instruments even if they give high returns

PAINS

- * Difficulty in accessing traditional banking services due to mobility issues or impaired vision.
- * Concerns about outliving savings or managing on a fixed income during retirement
- * Frustration with unfamiliarity or difficulty in using digital banking platforms or ATMs.
- * Feelings of loneliness or vulnerability due to limited social interactions or support networks.
- * Worries about rising medical expenses and long-term care needs impacting financial stability.
- * Low interest rates on their investments
- * Fear of falling victim to financial scams or exploitation targeting the elderly population.

GOALS

- * Desire to maintain control over finances and make informed decisions about money management.
- * Aspiration to build a financial cushion for emergencies and ensure a comfortable retirement lifestyle.
- * Need for convenient and user-friendly banking options that accommodate physical and cognitive limitations
- * Importance of leaving a financial legacy or providing financial assistance to loved ones.
- * Goal to remain engaged and involved in community activities and pursue leisure interests despite age-related challenges.
- * Aspiration to achieve financial peace of mind and enjoy a worry-free retirement.

Table 1 Empathy Map of an Elderly Person

5.2.2 Empathy Map of an Urban Woman:

THINKS & FEELS

- Lack of feeling of empowerment and security about managing finances independently.
- * Thoughts about financial goals, such as saving for retirement, investing, or supporting family members.
- * Apprehensive about cyber security & spams
- * Thoughts about expenses, retirement planning, and ensuring a stable future

SEES

- * Advertisements, marketing materials, and representations of financial products in media.
- * Visual depictions of financial data, such as graphs, charts, and online banking interfaces.
- * Long complicated list of terms and conditions
- * Frequent Spam messages

HEARS

- Plethora of Financial Products available in the market
- Advice or opinions from family members, friends, or financial advisors.
- Social norms or expectations regarding women's roles in managing finances and achieving financial independence.
- * News about Cyber attacks & risks

DOES

- Researching different financial options and comparing features and benefits.
- Making decisions about budgeting, spending, saving, and investing based on personal priorities and values.
- * Ends up keeping more money in Saving accounts and not investing in other instruments

PAINS

- * Frustration with earning less than male counterparts for the same work.
- * Work responsibilities alongside caregiving duties, impacting financial stability.
- * Insecure to make informed financial decisions due to limited knowledge.
- Experiencing gender-based discrimination in the workplace or financial services, hindering career advancement and access to opportunities.
- * Concerns about relying on others for financial support or facing economic vulnerability in the event of divorce or widowhood.
- * Challenges associated with affording healthcare expenses, such as birth control, fertility treatments, or pregnancy-related care.

GOALS

- Aspiration to achieve autonomy and control over finances, enabling freedom and self-reliance.
- * Desire to excel professionally, pursue leadership roles, and attain higher earning potential to support personal and family financial goals.
- * Goal to build wealth through saving, investing, and asset ownership, ensuring long-term financial security and prosperity.
- *Advocating for equal pay, opportunities, and access to financial services, contributing to greater economic empowerment and social justice.
- * Aspiration to achieve harmony between career success and personal well-being, prioritizing time for family, health, and leisure activities.
- Intention to pass down financial knowledge, resources, and opportunities to future generations, fostering intergenerational prosperity and stability.

Table 2- Empathy Map of an Urban Woman:

International studies show that compared to men, women have utilized formal financial services at a lesser rate. Due to effective distance, high maintenance costs for transportation infrastructure, and restricted population mobility, accessing financial services is more challenging for individuals in rural areas than in metropolitan ones. (Triki and Faye, (2013)).

It is critical to address the differences in the financial services usage patterns of men and women in order to promote inclusive growth. Complete financial inclusion is challenging to achieve, though, if the diverse and evolving demands of customers are not taken into consideration.

Furthermore, the gender gap in financial inclusion indicates that mainstreaming gender is unlikely to be the cause of differences in women's financial inclusion.(UNCDF, 2017).

5.2.3 Empathy Map of a Rural Indigenous Person:

THINKS & FEELS

- * Feelings of isolation or disconnectedness due to limited access to traditional banking services in rural areas.
- * Thoughts about the importance of financial stability and resilience in agricultural or rural livelihoods
- Apprehensive about their kids prosperity by passing on the legacy of rural occupations
- * Thoughts about expenses, retirement planning, and ensuring a stable future
- Mistrust / skepticism towards mainstream financial institutions due to historical and systemic injustices.

HEARS

- * Listen to the conversations and messages the rural person receives about financial products and services.
- * Experiences shared by other rural residents regarding their interactions with financial institutions.
- * Discussions about economic challenges and opportunities within the rural community.
- * News about Cyber attacks & risks

SEES

- Limited availability of bank branches or ATMs in rural communities
- * Long complicated list of terms and conditions
- Representation of rural lifestyles, occupations, indigenous symbols in marketing materials.
- * Lesser mortgage facilities available for rural persons
- * Absense of physical kiosks in neighbourhood that could explain them about financial products.

DOES

- * Utilizing alternative financial services or informal savings and credit mechanisms common in rural areas
- * Participating in community-based financial initiatives, such as savings groups or agricultural cooperatives.
- * Ends up keeping more money in Cash or Checking / Saving accounts and not investing in high return instruments

PAINS

- * Difficulty in accessing traditional banking services due to geographic distance from branches or ATMs in
- * Challenges associated with seasonal or fluctuating incomes from agriculture or other rural livelihoods.
- * Frustration with inadequate internet connectivity or technology infrastructure, hindering access to online banking and digital financial services.
- * Difficulty in accessing banking facilities or attending financial education workshops due to lack of reliable transportation options in rural communities.
- * Feeling uninformed or unprepared to make sound financial decisions due to limited access to financial literacy resources and workshops in rural areas.
- * Reliance on informal lending sources or high-cost financial services due to limited options in rural areas, leading to financial yulnerability and debt traps.

GOALS

- * Aspiration to build savings, create emergency funds, and diversify income sources to withstand economic uncertainties and shocks.
- Desire for convenient and accessible banking options, such as mobile banking vans or community banking initiatives, to overcome geographic barriers.
- * Goal to promote local economic growth and entrepreneurship through access to affordable credit, business support services, and microfinance opportunities.
- * Aspiration to acquire land, property, or livestock as tangible assets for wealth accumulation and securing livelihoods in rural areas.
- * Desire to adopt environmentally friendly and cost-effective practices for managing resources and reducing expenses in rural households.
- * Intention to participate in community-based initiatives, such as savings groups or agricultural cooperatives, to pool resources and support collective economic development efforts in rural areas.

INDIGENOUS PERSON - FINANCIAL LITERACY REMAINS A CONCERN

Indigenous peoples represent a significant segment of Canada's population and have played a substantial role, if not originating, in shaping contemporary Canadian culture. Despite their significant contributions, this group has encountered significant obstacles in their pursuit of financial stability. Historical occurrences like residential schooling have fostered a deep-seated sense of mistrust between Indigenous communities and the broader Canadian society. These negative perceptions have exacerbated disparities in education, income, and have led to a broader social divide between Indigenous peoples and Euro-Canadian communities.

Financial services remain inaccessible for Indigenous individuals, posing challenges in establishing favourable credit scores or crafting retirement plans. Even those with access often feel marginalized within mainstream financial institutions (Prosper Canada, 2015). Consequently, many Indigenous people resort to payday loan establishments instead of seeking loans from conventional financial entities. Limited operating hours of mainstream banks also contribute to this phenomenon (Bowles, 2015). Additionally, online banking cannot fully address this issue as some lack computer ownership, and access to library computers is restricted by operating hours (Bowles, 2015). Another deterrent for some Indigenous individuals to engage with mainstream financial institutions is the requirement for various forms of identification, which they may not possess.

5.2.4 Empathy Map of an Educated, Urban, Affluent Man

THINKS & FEELS

- * Feelings of confidence or security in financial decision-making due to education and wealth.
- * Thoughts about maintaining and growing wealth, planning for retirement, and preserving assets for future generations.
- * Apprehensive about cyber threats

SEES

- * Sophisticated advertisements or marketing campaigns for investment opportunities, wealth management services, and luxury banking experiences.
- * Visual cues of affluence and success in urban environments, such as upscale neighborhoods and luxury lifestyle magazines.
- * Long complicated list of terms and conditions
- * Good mortgage rates available

HEARS

- * Listen to the conversations and messages the man receives about financial management.
- * Discussions with financial advisors, wealth managers, or peers in similar socio-economic circles about investment strategies, tax planning, and estate planning.
- * Peer discussions about lifestyle choices, luxury purchases, and leisure activities that reflect financial status.
- * News about Cyber attacks & risks

DOES.

- Engaging in high-value financial transactions, such as investment portfolio management, real estate acquisitions, or philanthropic endeavors.
- * Seeking out exclusive financial services and experiences tailored to affluent clientele, such as private banking, concierge services, and personalized wealth management solutions.

PAINS

- * Feeling pressure to maintain a certain lifestyle or standard of living associated with affluence, leading to financial stress or anxiety.
- * Managing complex investment portfolios, tax planning strategies, and estate planning considerations, leading to feelings of overwhelm or confusion.
- * Struggling to balance career demands with personal and family priorities, impacting overall well-being and satisfaction
- * Concerns about protecting accumulated wealth and assets from market volatility, economic downturns, or unforeseen financial risks.
- * Facing societal expectations or peer influences related to spending habits, status symbols, and material possessions, impacting financial decision-making.
- * Feeling disconnected or lacking meaningful relationships despite material success, leading to emotional or psychological challenges.

GOALS

- * Aspiration to achieve financial independence and security, allowing for greater flexibility and autonomy in lifestyle choices and career pursuits.
- * Goal to preserve and grow accumulated wealth over time, ensuring long-term financial stability and prosperity for oneself and future generations.
- * Desire to leave a lasting impact or legacy through philanthropy, charitable giving, or supporting causes aligned with personal values and beliefs.
- * Aspiration to invest in personal growth, education, or self-improvement endeavors that enhance skills, knowledge, and overall fulfillment.
- * Intention to achieve harmony between professional success and personal well-being, prioritizing time for family, health, and leisure activities.
- * Desire to cultivate meaningful relationships, networks, and communities that provide support, companionship, and a sense of belonging beyond material wealth.

Table 4- Empathy Map of an Educated, Urban, Affluent Man

6. DIVERSITY AND MONEY MANAGEMENT

How do diverse individuals understand and handle money management differently? What is the impact of diversity on money management?

Diverse individuals approach financial management differently, influenced by factors such as socioeconomic status, location, age, gender, and cultural heritage. In terms of wealth inequality, affluent individuals typically benefit from access to financial advisors, investment options, and advanced wealth management resources. They often prioritize long-term investments, diversify their portfolios, and employ tax planning strategies to augment their wealth. Conversely, individuals from lower-income brackets tend to concentrate on immediate financial obligations like bill payments and meeting essential living costs. They may utilize budgeting methods, seek out economical financial services, and prioritize building emergency savings over long-term investment endeavors.

Geographic location also influences financial management practices. In rural areas, access to conventional banking services may be restricted, compelling residents to depend on cash transactions or alternative financial service providers. Conversely, urban residents typically enjoy a broader array of financial institutions and fintech innovations, facilitating easier adoption of digital banking, mobile payment solutions, and investment platforms.

Age is another important factor influencing money management. Younger individuals may prioritize saving for short-term goals such as education, travel, or starting a family. They may also be more inclined to embrace digital banking and investment apps. On the other hand, older individuals nearing retirement may focus on preserving wealth and generating passive income through conservative investment strategies and retirement planning.

Gender dynamics also shape money management behaviours. Women, on average, tend to earn less and have longer life expectancies, influencing their approach to financial planning. They may prioritize saving for retirement, investing in education and healthcare, and seeking out financial education and resources to overcome gender-based financial challenges. Men are more financially involved than women, despite the fact that women contribute significantly to the household's income generation and management. (OECD, 2018).

7. MONEY MANAGEMENT & DIGITISATION

What is Money Management and how are digitisation and modern financial products making it more effective?

Money management is all about strategically handling your financial resources to reach your goals and maintain stability. It includes budgeting, saving, investing, and spending wisely to make the most of your income and assets. Effective money management means understanding your financial priorities, keeping track of your expenses, and making informed decisions to optimize your financial well-being. It's about living within your means, planning for the future, and being aware of both financial risks and opportunities. Whether it's setting aside savings for emergencies, investing for the long term, or managing debt responsibly, sound money management practices are crucial for achieving financial security and success.

Incorporating digitization and modern financial products can greatly amplify the efficiency of money management. Firstly, digital tools like mobile banking apps and online budgeting platforms offer instant access to financial data, empowering individuals to monitor their spending and manage budgets effortlessly.

Additionally, innovative financial products such as robo-advisors streamline investment management by leveraging algorithms to optimize portfolios and align with financial objectives automatically.

Furthermore, digital payment systems and fintech solutions simplify transactions, reducing reliance on cash and enhancing financial convenience.

Utilizing data analytics and artificial intelligence within contemporary financial products provides customized insights tailored to individual spending patterns and objectives, thereby enabling informed decision-making and improving overall financial results.

Technological advancements and innovative business models have led to the increasing popularity of digital financial services. These services offer reduced costs, enhanced speed, transparency, security, and accessibility, thereby enabling the provision of specialized financial services to underserved populations on a larger scale. (Pazarbasioglu et al, 2020)

In essence, embracing digitization and contemporary financial products transforms money management by granting access to user-friendly tools, automation, and personalized guidance. This empowerment enables individuals to navigate their finances more efficiently and realize their financial goals.

8. THE NEED TO DESIGN FOR DIVERSITY

Is there a need to design for diversity and what are financial organisations doing about it?

The commercial case for diversity, equity, and inclusion (DE&I) is stronger than ever, according to a 2020 McKinsey research. The study offered insights into the significance of inclusion and demonstrated the growing correlation between the likelihood of financial outperformance and the diversity of executive teams. Cole (2020) explains the importance of diversity and inclusion in the workplace in a Forbes article. These include improved customer comprehension, more inventiveness and creativity, happier workers, more production, a wider spectrum of abilities, and more talent.

Although there has always been a movement in favor of diversity, Covid gave it a boost because it was both morally and commercially imperative. The need for inclusion in business is mostly motivated by customer demand. A increasing amount of research suggests that customers are choosing businesses who have a track record of dedication to DE&I. Why is diversity and inclusion in business and banking so important? (2022) It is crucial for businesses to create products and services that cater to a varied customer base, and banks are no exception, given that diverse workplaces outperform those without it and that customers prefer doing business with inclusive organizations.

Transitioning cultural norms requires time, particularly within the vast and tradition-bound financial sector. Despite its slow progress, the industry is gradually embarking on an internal journey towards fostering diversity and inclusion. Encouragingly, there are indications that banks are broadening their perspective to encompass a more diverse customer base, including previously overlooked aspects like neurodiversity. Collaborating with technology firms, banks are beginning to develop applications with accessibility in mind. Although the major Canadian banks exhibit some level of awareness and initial steps in the right direction, they acknowledge being in the nascent stages of achieving universal accessibility. Currently, their focus lies on forging partnerships, raising awareness, and initiating the design of accessible products. Prioritizing universal design principles could alleviate accessibility hurdles and ensure seamless experiences for all customers. By minimizing the need for special accommodations, banks can help reduce stigma. It's heartening to witness banks embracing the language of human-centred design and cocreation, as this approach underscores their commitment to designing solutions that meet customer needs rather than simply accommodating unmet ones.

In 2021, **Scotiabank** initiated a formal collaboration with D(if) Labs, a disability consulting firm. Additionally, Scotiabank frequently engages in consultations with CAN-age, a prominent national seniors advocacy organization, as well as the Alzheimer's Society, a recognized national health charity. These collaborations aim to enhance financial inclusion for individuals living with dementia. Scotiabank's accessibility team conducts workshops with its employees to pinpoint accessibility challenges within banking and employment, aligning with the 7 priority areas outlined in the Accessible Canada Act.

As per a Scotiabank executive we interviewed, when they design, build, or source technology, they create accessible and inclusive experiences that consider the wide range of human diversity. They do this through the adoption of accessibility standards and tools, capacity building and scalable, sustainable processes. She also mentioned that awareness is generated through community gatherings and event sponsorships.

CIBC demonstrates its dedication to diversity through various community collaborations, such as the BlackNorth initiative (Black Canadians), Chicago Scholars (low income Students), Indspire (Indigenous people), Pride At Work (LGBTQ+) etc. Moreover, the bank is steadfast in catering to the requirements of clients with disabilities, encompassing those with visual impairments, motor difficulties, hearing impairments, cognitive differences, and mental health challenges. Accessibility initiatives for neurodiverse individuals entail the use of plain language, accommodating service animals and support persons.

"The BlackNorth initiative is a collective of business leaders and community members who seek to highlight the experience of Black Canadians through programming and advocacy efforts. We are delighted to be partnering with CIBC to promote the experience of Black Canadians and to work to address issues caused by systemic racism..."

[—] Dahabo Ahmed-Omer, Executive Director, BlackNorth Initiative

An interview with an ex-employee at Questrade Wealth Management Services revealed that the Organisation has a vigilant User Experience (UX) team that tries to provide a seamless experience to its diverse users. Colours and fonts are extremely important for both internal and external communications. The Organisation holds regular webinars for different customers to help them comprehend the finance products customised to diverse needs. Questrade is also involved in a financial literacy initiative of the Ontario Government called "JA Canada" that helps Canadian students in grades 3-12 to gain skills needed to succeed in a global economy. The program boasts to be designed as inclusive and accessible, free of prejudice and discrimination.

As part of their effort to enhance accessibility for individuals who are deaf or hard of hearing, several Canadian banks have implemented in-branch sign language interpretation services. The Royal Bank of Canada (RBC) took the initiative by introducing a real-time multi-language interpretation application, enabling video access to qualified interpreters within their branches. This on-demand video service offers interpretation in thirteen languages, including American Sign Language, via two-way video communication.

Similarly, other Canadian banks like **Scotiabank** and **Toronto-Dominion Bank (TD)** have also implemented comparable on-demand interpretation services for individuals who are deaf or hard of hearing. This shift towards digitalized services not only promotes accessibility but also offers greater flexibility in banking, thereby fostering inclusion in financial transactions.

Payments play a pivotal role in daily life, economic engagement, and financial stability. Achieving inclusion in payment systems is crucial for fostering financial autonomy and advancing towards a society free from barriers. While numerous initiatives in Canada aim to enhance accessibility and narrow the digital gap, such as incorporating accessibility features into electronic payment terminals and ATMs, the lack of standardization indicates ongoing efforts are necessary. Currently, Canadian organizations often implement accessibility measures selectively or on an ad hoc basis, resulting in inconsistent access to payment methods and varying experiences for individuals with disabilities.

As per Statistics Canada, it is estimated that 1.5 million Canadians are blind or have a low vision. In 2021 around 60% of Canadians aged 19 to 79 experienced some or the other kind of hearing loss. Mobility disabilities affect 1 in 10 Canadians (Dupont, 2023). Looking ahead, advancements in biometric payments, Central Bank Digital Currencies (CBDCs), and payment platforms like Apple Wallets, Google Pay, wearables, and smart home assistants hold promise for promoting inclusion in an increasingly cashless landscape, provided the specific needs of individuals with disabilities are duly considered. Ensuring equal and fair access to payment systems is paramount, necessitating measures such as raising awareness, establishing standards, and engaging in continuous consultation with individuals with disabilities to cultivate inclusive payment environments and experiences (Dupont, 2023).

HUMAN CENTRED DESIGN

What is Human-centred design and how is it relevant here?

Human-centred design (HCD) research is hard to find in the financial services industry. This can probably be attributed to its recent introduction to the banking industry. Ernst & Young (EY) published a case study on how human-centred design was utilized to enhance the client experience at a multinational bank. According to Monica Ackermann, Director of Enterprise Accessibility, at Scotia Bank, there is evidence that banks are beginning to consider a human-centred strategy. Yet, according to Ackermann, adopting a human-centric strategy is novel, and financial institutions are still in the nascent stages of exploring and creating designs appropriate and useful for diverse customers.

"The bank is starting to take a look at a holistic, all-bank approach — or a human-centred approach — to customer and employee journeys to ensure our customers and our employees with disabilities have access to good services and employment with dignity, independence and respect,"

- Monica Ackermann, Scotia Bank

HCD design process by IDEO image source IDEO.org Continue Conti

Figure 5- Human-Centred Design Process

Human-Centred Design Process (source: IDEO, 2018)

Finding the right problem Iterate Problem Statement DEFINE Finding the right solution Finding the right solution Solution Solution Trigger Trigger EMPATHISE DEFINE DEFINE DIEATE PROTOTYPE TEST Adapted from the British Design Council in 200

The Double Diamond Model of Design Thinking

Figure 6- The Double Diamond model of Design Thinking

10. DESIGN THINKING

What is design thinking and its principles?

"Design Thinking is a <u>human-centred</u> approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success"

- Tim Brown, Executive Chair of IDEO

Organizations can revolutionize their approach to developing products and services, procedures and strategies by adopting a design-led mindset. This method, called design thinking, combines what is economically and technologically feasible with what is desirable from a human perspective. Additionally, it enables non-designers to employ creative techniques to solve a wide range of problems.

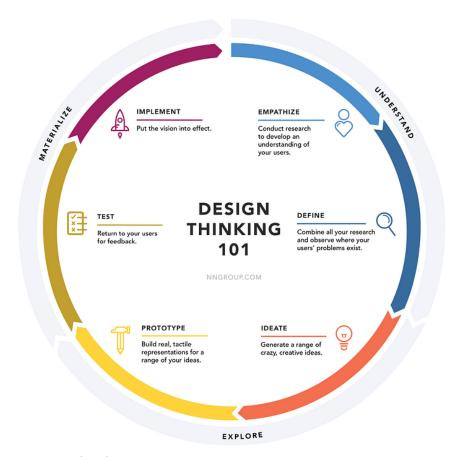


Figure 7- Design Thinking 101

Source: (Pian, 2018)

Various Steps in Design Thinking:

- 1. **Empathize:** Understanding the needs and experiences of users.
- 2. **Define**: Defining the problem to be solved based on user insights.
- 3. Ideate: Generating creative solutions to the defined problem.
- 4. **Prototype:** Developing tangible representations of the proposed solutions.
- 5. **Test:** Evaluating prototypes with users to gather feedback and refine ideas.
- **6. Implement:** Introducing the developed solutions

10.1 DESIGN THINKING AND INCLUSIVE FINANCIAL PRODUCTS

Can financial organisations use design thinking principles while designing inclusive financial products for diverse customers?

The design thinking process can serve as a powerful framework for designing inclusive financial products that cater to the diverse needs of customers.

1. Empathize: Both our primary and secondary research led us to the conclusion that diverse customers from different socio-economic backgrounds, cultural contexts, ages, genders and abilities, have unique needs, preferences and challenges. We also deciphered that there is a clear demand for inclusive financial products. Conducting in-depth research, interviews, and observations to gain empathy and insights into the lived experiences of diverse users will help design a product that matches their needs. Empathizing is not only about gaining a better understanding of needs and wants but also about setting aside assumptions about the users and the world. For a Financial Organisation it's important to acknowledge these differences and preferences as a starting point to create products using the design thinking process.

2. **Define:** During the Define stage of the design thinking process, the focus shifts to synthesizing the insights gathered during the Empathize stage to define the problem statement and identify specific opportunities for innovation. This involves distilling the research findings, user interviews, and observations into actionable insights that inform the design process. It's essential to identify the key pain points, needs, and aspirations of diverse customer segments, considering factors such as socioeconomic status, cultural background, age, and abilities. By defining the problem statement with clarity and precision, designers can ensure that the subsequent ideation and prototyping phases are focused on addressing the most pressing challenges and opportunities for creating inclusive financial products. Various tools are used in this phase. For the scope of this paper, we are just naming them here: Problem Tree (Dillon, 2014), Iterative Enguiry (McEwen, 2014), Problem Statement (Dam & Siang, 2024).

3. Ideate: Ideate stage involves generating a wide range of creative ideas for inclusive financial products and features that cater to the diverse needs of users. Encouraging interdisciplinary collaboration and co-creation with diverse stakeholders, including customers, community organizations, and advocacy groups, helps get better and out-of-the-box ideas. Embracing diversity of thought and considering different perspectives can inform the design process and drive innovation.

The teams engage in divergent thinking to generate a wide range of creative ideas and potential solutions to address the defined problem statement. This stage emphasizes collaborative creativity, where participants leverage their diverse perspectives and collective intelligence to explore new possibilities and unlock innovative insights. Through techniques like brainstorming, mind mapping (Mindmapping.com, n.d.), and SCAMPER (Leifer et al., 1968), teams stimulate idea generation and encourage unconventional thinking, prioritizing quantity over quality to foster a culture of exploration and experimentation. Visual tools such as sketches and prototypes help externalize ideas and make them tangible, while time-bound constraints and challenges spur creativity and focus ideation efforts. By embracing a collaborative and iterative approach to ideation, teams can uncover innovative solutions that address the needs of diverse users and drive meaningful impact.

Prototype: This stage will involve developing prototypes or mockups of the proposed financial products to visualize and test their usability, accessibility, and inclusivity. Financial Organisations include diverse users in the prototyping process to ensure that the designs meet their needs and preferences. They further use feedback from user testing to iterate on the prototypes and refine the design. In the Prototyping stage for a financial institution crafting inclusive financial products for diverse customers, several crucial steps guide the development of prototypes.

Firstly, clear objectives for the prototype are outlined, detailing the specific features to be tested and the target user groups. Next, appropriate prototyping tools are selected based on the product's complexity, ranging from low-fidelity options like paper sketches to high-fidelity ones such as interactive mock-ups. Once tools are chosen, the initial prototype is built, integrating features that address the varied needs and preferences of different user segments, prioritizing accessibility and inclusivity.

Subsequently, feedback sessions with diverse user groups are conducted to assess the prototype's usability and effectiveness, with inputs guiding iterative refinements to the design and functionality. The prototype undergoes testing with real or simulated data to validate assumptions and ensure its capability in handling diverse financial scenarios and user interactions. Through iterative refinement and validation of assumptions, the prototype evolves, ultimately informing the development of the final product, poised to cater inclusively to diverse customer needs.

Test: The testing stage of the design thinking process involves conducting user testing and feedback sessions with diverse user groups to evaluate the effectiveness and usability of the prototypes. The designers gather insights on how users interact with the products, identify any pain points or barriers, and validate assumptions. They use this feedback to refine the design further and iterate on the prototypes. In the Test stage of developing inclusive financial products for diverse customers, several pivotal steps drive the validation and refinement process. Firstly, prototypes are subjected to rigorous testing with representative user groups from various demographic backgrounds, ensuring inclusivity across age, socioeconomic status, and cultural contexts. Through feedback sessions, including interviews, surveys, and usability tests, insights are gathered on the prototype's effectiveness, accessibility, and user experience. Iterative refinements are then made based on this feedback, addressing any usability issues, pain points, or barriers identified during testing. Moreover, the prototype's performance under real-world conditions is assessed, utilizing actual data or simulated scenarios to validate assumptions and ensure its ability to handle diverse financial scenarios and user interactions effectively. Through this iterative testing and refinement process, the prototype evolves, guided by datadriven insights and user feedback, ultimately shaping the development of the final product to be truly inclusive and responsive to the needs of diverse customers.

Prototypes and tests go hand in hand because there will always be a need to test prototypes on actual people. The members can start with low-quality prototypes and work their way up to higher-fidelity ones. The Test

stage of the design thinking process often informs and feeds into other stages. The findings in the test stage help empathize and gain a better understanding of the diverse users of financial products. This approach can not only offer deeper understanding that reshapes the framing of the problem statement but also spark fresh ideas for addressing user needs and ultimately enhance the prototype. (Dam & Siang, 2024)

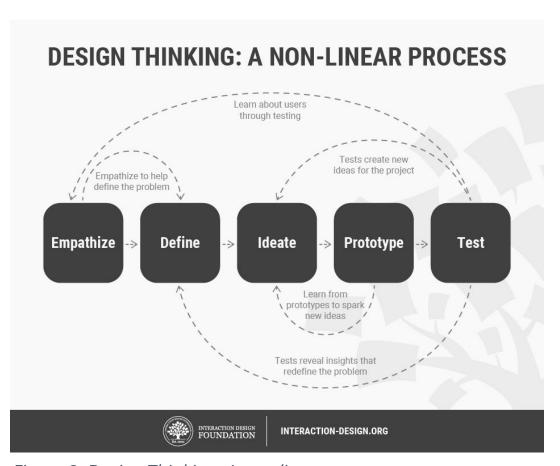


Figure 8- Design Thinking- A non-linear process

 $Source: Interaction\ Design\ Foundation,\ \underline{https://interaction-design.org}$

Implement: Once the design has been validated through testing, the next step is to develop and launch the final version of the inclusive financial products. Feedback is continuously monitored to ensure that the products meet the diverse needs of customers and deliver meaningful value. By embracing principles of empathy, diversity, and co-creation throughout the design process, financial institutions can create inclusive financial products that empower all individuals to achieve their financial goals.

A comprehensive implementation plan is crafted, detailing the necessary steps and timeline for the rollout. Factors such as product readiness, regulatory compliance, marketing strategy, and customer support infrastructure are carefully considered in this plan to ensure a smooth and effective introduction of the offerings.

Ensuring adherence to relevant financial regulations and standards is vital for regulatory compliance, ensuring a seamless introduction of the products. Additionally, developing a strong marketing and promotion strategy is essential to raise awareness and generate interest among the diverse customer base. Customizing messaging and communication channels to effectively cater to various linguistic and cultural preferences is imperative. Alongside, providing extensive training and education to internal stakeholders, along with educational resources for customers, facilitates understanding and utilization of the new financial products. Furthermore, the establishment of effective customer support systems and the initiation of pilot launches to gather feedback serve to enhance the implementation process. Consistent monitoring, evaluation, and iterative improvements based on feedback and performance data guarantee the ongoing

relevance and efficiency of the products in meeting the diverse needs of customers.

Successfully implementing inclusive financial products for diverse customers requires thoughtful communication strategies tailored to resonate with the unique needs and preferences of all customer segments. When communicating with a diverse audience, it's essential to consider factors such as language, culture, accessibility, and simplicity of messaging. For instance, providing information in multiple languages ensures that all customers can understand the messaging effectively, while using clear and concise language avoids confusion and fosters comprehension for everyone. Moreover, incorporating visual elements such as graphics and diagrams supplements written communication, particularly benefiting customers with low literacy levels or visual learning preferences. Personalizing communication messages based on customer demographics and preferences ensures relevance and resonance while providing educational resources empowers customers to make informed decisions about the new financial products. Additionally, fostering transparency, trust, and two-way communication builds strong relationships with customers, encouraging open dialogue and feedback, which is invaluable for ensuring the successful adoption and utilization of inclusive financial products. Through these considerations and tailored communication strategies, financial organizations can effectively engage and empower diverse customers, driving financial inclusion and fostering positive outcomes for all.

11. BUSINESS MODEL CANVAS

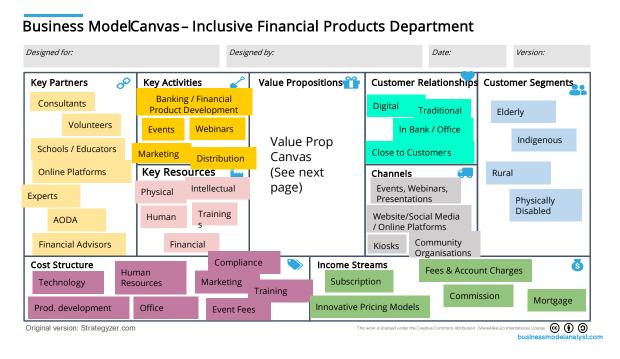


Figure 9- Business Model Canvas- Inclusive financial products

"...every villager in Bangladesh had access to a telephone? That is what Grameenphone set out to achieve under a partnership with microfinance institution Grameen* Bank. At the time, Bangladesh still had the world's lowest tele-density. Today Grameenphone is Bangladesh's largest taxpayer"

(Osterwalder & Pigneur, 2010)

(* Grameen means "Village / Rural areas")

11.1 VALUE PROPOSITION CANVAS

VALUE PROPOSITION CANVAS **CUSTOMER SEGMENT - ELDERLY** Complicated Products Wealth **Financial** Stability Low Interest Rates rates Lack - Digital Less Retirement Regular knowledge Income Gain Updates **Pains** creators Cyber SimpleProducts **Inclusive** Threats Good Returns **Financial Products** Customer **Products** In-person iobs interactions Better control & over finances **Pain** services Cushion for Webinars relievers emergencies Gains Leave Cyber Simple financial safety platform Peace of legacy User friendly platform

Figure 10- The Value Proposition Canvas for the Elderly

The Value Proposition Canvas for the elderly focuses on addressing their specific needs and aspirations. By understanding their pains, such as financial insecurity and difficulty with technology, and gains, such as financial independence and peace of mind, the organization can develop pain relievers, including personalized financial advice and accessible banking services, and gain creators, such as user-friendly interfaces and comprehensive support services. This approach aims to offer tailored financial solutions that enhance the financial well-being and quality of life of the elderly population, ultimately creating value by empowering them to navigate their financial journey with confidence and ease. Confidence and familiarity with digital payment methods significantly influence digital inclusion, particularly among older demographics. Research conducted by the Financial Consumer Agency of Canada (FCAC) reveals that the primary obstacles faced by seniors who abstain from online banking include apprehensions regarding safety or security (32%), a preference for inperson or telebanking services (20%), and lack of internet usage or access (20%).

VALUE PROPOSITION CANVAS

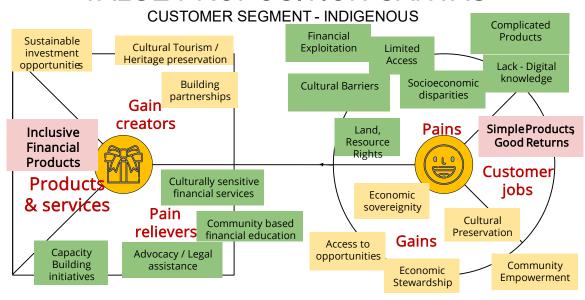


Figure 11- The Value Proposition Canvas for rural Indigenous persons

The Value Proposition Canvas for rural Indigenous persons emphasizes understanding their unique circumstances and needs. Pains may include economic marginalization, cultural barriers, land and resource rights challenges, socioeconomic disparities, and financial exploitation. Gains encompass economic sovereignty, cultural preservation, community empowerment, access to opportunities, and environmental stewardship. Pain relievers involve culturally sensitive financial services, community-based financial education, land and resource management support, advocacy, and capacity-building initiatives. Gain creators include Indigenous-led economic development, financial inclusion initiatives, sustainable investment opportunities, cultural tourism, and reconciliation efforts. By addressing these aspects, the organization can develop value propositions that resonate with rural Indigenous persons' aspirations, ultimately fostering their economic empowerment and cultural resilience.

VALUE PROPOSITION CANVAS

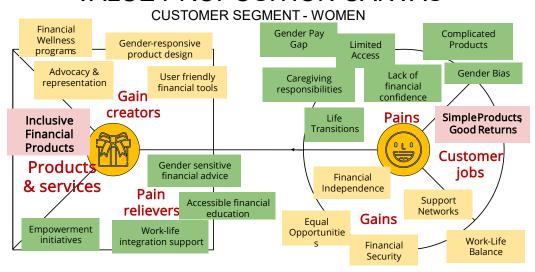


Figure 12- Value Proposition Canvas for women

Value Proposition Canvas for women centres on understanding their unique needs and challenges. Pains include the gender pay gap, caregiving responsibilities, lack of financial confidence, gender biases in financial services, and life transitions like divorce. Gains encompass financial independence, peace of mind, access to opportunities, supportive networks, and work-life balance. Pain relievers involve gendersensitive financial advice, accessible banking services, fraud protection measures, health-related financial planning, and transparent communication. Gain creators include user-friendly interfaces, financial literacy programs, comprehensive support services and customized financial solutions. By addressing these, the organization can develop value propositions that resonate with women's aspirations enhancing their financial empowerment and well-being. There seems to be a lower inclination among women to adopt new financial technology & privacy concerns tend to be more pronounced compared to men. (Chen et al, 2021)

VALUE PROPOSITION CANVAS

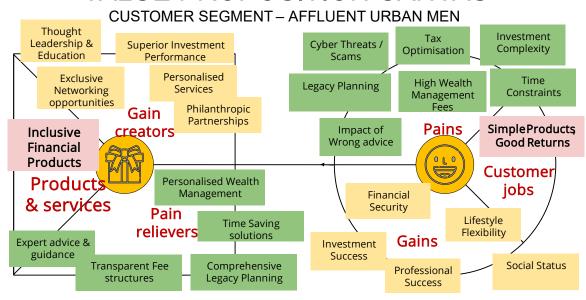


Figure 13- The Value Proposition Canvas for urban, rich, educated, affluent men

The Value Proposition Canvas for urban, rich, educated, affluent men in Canada delves into understanding their specific needs and aspirations. Pains may include investment complexity, time constraints, tax optimization challenges, wealth management fees, and legacy planning concerns. Gains encompass financial security, lifestyle flexibility, investment success, professional success, and social status. Pain relievers involve personalized wealth management, time-saving solutions, transparent fee structures, expert advice, and comprehensive legacy planning. Gain creators include superior investment performance, lifestyle concierge services, exclusive networking opportunities, thought leadership, and philanthropic partnerships. By addressing these elements, the organization can develop value propositions that resonate with affluent men's aspirations, ultimately enhancing their financial well-being and lifestyle choices.

11.2 BUSINESS MODEL CANVAS

Canvas for the inclusive financial products vertical.

The Business Model Canvas for a financial organization creating inclusive financial products for diverse customers encompasses a strategic framework to deliver value while ensuring profitability. It begins with identifying diverse customer segments, and understanding their unique needs, challenges, and goals regarding financial products. Through a tailored value proposition, emphasizing accessibility, inclusivity, and personalized solutions, the organization aims to address these needs effectively.

Channels are selected to deliver these products and services, including both traditional and digital platforms, supported by strong customer relationships built on trust, transparency, and empathy. Revenue streams are diversified, aligning with the value provided to customers, while strategic partnerships with fintech firms, community organizations, and financial advisors enhance product development and distribution efforts. Key resources, activities, and partnerships are optimized to ensure efficiency, scalability, and cultural competence in serving diverse customer segments. Meanwhile, a cost structure is established to manage expenses while maintaining product quality and accessibility.

Overall, this business model prioritizes customer-centricity, innovation, and sustainability in fostering financial inclusion and empowerment for all.

11.3 PROFITABILITY - INCLUSIVE BUSINESS MODEL

How can such a business unit ensure profitability?

To ensure profitability within the Business Model Canvas for a financial organization offering inclusive financial products to diverse customers, several strategies can be employed. These include diversifying revenue streams through subscription fees or transaction charges, efficiently managing operational costs through automation and strategic partnerships, and implementing scalable operations to accommodate growth without proportional increases in expenses. Additionally, crossselling and upselling tactics can boost revenue, while value-based pricing models ensure that pricing reflects the perceived value of the products and services offered. Continuous innovation, market expansion, and prioritizing customer retention further contribute to long-term profitability.

Ensuring profitability within the proposed business model revolves around a combination of strategic approaches that leverage inclusivity, innovation, and efficiency. Firstly, diversification of revenue streams plays a pivotal role. By offering a range of financial products and services tailored to diverse customer segments, such as the elderly, women, indigenous communities, rural residents, and individuals with disabilities, the organization can capture revenue from various sources, including subscription fees, transaction charges, and commissions on financial products.

Moreover, efficient cost management is essential for profitability. Leveraging technology for automation, streamlining processes, and optimizing resource allocation can help minimize operational expenses while maximizing productivity and scalability. Additionally, strategic partnerships with fintech firms, community organizations, and financial advisors can enhance product development, distribution channels, and customer acquisition, thereby optimizing revenue generation while controlling costs.

Furthermore, customer-centricity and continuous innovation are integral to profitability. By prioritizing customer satisfaction and adapting products and services to meet evolving needs and preferences, the organization can foster long-term customer relationships, reduce churn, and drive repeat business. Innovation in product design, delivery methods, and customer experience further differentiates the organization from competitors and attracts new customers, thereby expanding market share and revenue potential.

Finally, a robust marketing strategy that targets diverse customer segments and effectively communicates the value proposition of inclusive financial products can stimulate demand and drive revenue growth. By aligning revenue streams with the value provided to customers, managing costs efficiently, prioritizing customer satisfaction and innovation, and implementing effective marketing strategies, the business model can ensure profitability while advancing its mission of financial inclusion and empowerment for all Canadians.

11.4 INCLUSIVE BUSINESS MODELS AND ECONOMIC GROWTH

How will a business model, built keeping diversity in mind, contribute towards the economic growth of Canada as a country, economically and socially?

A financial organization focused on providing inclusive financial products in Canada has the potential to significantly contribute to the growth of society and the Canadian economy in several ways. Firstly, by catering to diverse customer segments such as the elderly, women, indigenous communities, rural residents, and individuals with disabilities, the organization fosters greater financial inclusion and empowerment. This, in turn, leads to improved financial well-being and stability among Canadians across various demographics, reducing inequalities and promoting social cohesion.

Secondly, the availability of inclusive financial products stimulates economic growth by unlocking the economic potential of underserved populations. For example, providing accessible banking services to rural communities and indigenous groups facilitates entrepreneurship, investment, and wealth creation in these regions. Similarly, offering tailored financial solutions for women and individuals with disabilities enables them to participate more fully in the economy, driving innovation and productivity.

Moreover, by addressing the specific needs and challenges of diverse customers, the financial organization fosters a more resilient and inclusive economy. It encourages innovation in financial services and promotes a

customer-centric approach that enhances competitiveness and sustainability in the Canadian financial sector. Overall, such businesses not only contribute to the economic growth of Canada but also uphold principles of equity, social justice, and inclusivity, thereby enriching the fabric of Canadian society as a whole.

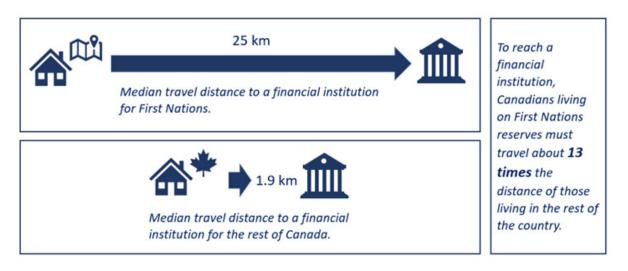


Figure 14- Median travel distance to a branch of a financial institution for Canadians

Source: (Sutton-Lalani et al., 2023)

As currency and financial services undergo greater digitization, achieving comprehensive financial inclusion now appears contingent upon simultaneous digital inclusion. Beyond merely facilitating transactions, the overall money management experience varies significantly for individuals encountering obstacles in adopting digital tools. The manual aspects of financial management have largely transitioned to automation or obsolescence with the digitization of monetary systems. For instance, fundamental tasks such as physically handling and counting change during purchases are rendered obsolete with the adoption of digital payment mechanisms.

Users have even been found to prefer digital payment methods for purchases that would have resulted in receiving change (Chen, Huynh and Shy 2017).

For individuals with limited numerical literacy, removing this responsibility can enhance the accessibility of money. Another fundamental benefit of digital payment options is the decreased necessity to handle or deposit physical currency—a task that may present difficulties for those lacking nearby access to cash or individuals with specific accessibility requirements. Additionally, more advanced functionalities such as automated financial tracking, spending notifications, and data analysis are accessible through digitalization. Present-day money management relies on metadata and automated processes achievable only through digital mediums. Despite cash retaining significance in payment practices, ongoing innovations in digital payments aim to broaden avenues for contemporary financial inclusion.

The **Knowledge-to-Action plan** for an inclusive financial organization in Canada may begin with a comprehensive market analysis to identify underserved segments, including the elderly, women, indigenous communities, rural residents, and individuals with disabilities. Leveraging these insights, the organization develops tailored financial products and services that address the specific needs and challenges of these populations, ensuring accessibility, affordability, and cultural sensitivity. Collaborating with community partners and government agencies, the organization conducts outreach and educational initiatives to raise awareness and empower individuals with financial literacy. Continuous monitoring and evaluation of the impact of these initiatives help refine strategies and advocate for policy changes that promote financial inclusion. By measuring both economic and social impact, such as increased entrepreneurship and social cohesion, the organization demonstrates the tangible benefits of inclusive finance. Finally, sharing best practices with peers and stakeholders fosters collaboration and drives sector-wide adoption of inclusive finance principles, contributing to a more resilient and inclusive financial ecosystem in Canada.

12. USE CASES OF DESIGN THINKING

Some use cases where Design Thinking has proven to help Financial Organisations

1. Keep the Change – Bank of America

Feeling in Control: Bank of America helps Customers to "Keep the Change"

"How do you encourage new customers to open bank accounts? In 2004, Bank of America assigned design agency IDEO to boost their enrollment numbers: a problem lacking any user perspective or problem (yet)"

Bank of America (BoA) stands as a prominent American multinational investment bank, ranking as the second-largest banking institution within the United States. With a workforce exceeding 200,000 employees, BoA generated revenue surpassing \$98.5 billion in 2023.

In the realm of finance, where innovation is often scarce, Bank of America embarked on a pioneering journey by applying a human-centric approach. Their focus centred on a demographic often overlooked in financial services: boomer-age women with children. Through ethnographic research, a collaborative team from Bank of America and agency designers delved into the financial habits of families across diverse American cities. Their observations unveiled a significant trend: mothers, particularly single mothers, emerged as primary financial managers within households. Many relied on traditional methods like checkbook registries,

demonstrating both practicality and a keen eye for budgeting. However, the researchers also discovered a widespread struggle among mothers to save due to financial constraints and impulsive spending behaviors.

Recognizing these challenges as untapped opportunities for innovation, Bank of America's executives spearheaded a multidisciplinary team in brainstorming sessions. This endeavor birthed the groundbreaking "Keep the Change" program, a testament to the application of Design Thinking principles in the financial sector. This initiative rounded up debit card purchases, channeling the spare change into designated savings accounts. Through iterative development and user testing, the program evolved to offer additional features such as transaction summaries, overdraft protection, and enticing promotional offers. This transformative journey exemplifies how Design Thinking can revolutionize financial services by addressing real-world challenges and delivering tangible value to customers.

2. MLP, Germany

"How Design Thinking Enabled MLP to Speak the Customer's Language"

MLP, a Germany-based company, offers financial advisory services specializing in pension provision, asset management, and risk management. Their clientele primarily consists of affluent university graduates and high-net-worth individuals

For financial service providers such as MLP, maintaining close relationships with customers is paramount, particularly given the high level of trust required in financial consultancy. However, the aftermath of the financial crisis brought about a significant shift in the perception of

financial services. Many individuals now view the financial sector as lacking transparency and overly complex. In response to this evolving landscape, MLP recognized the need to enhance their communication efforts to better explain their services and unique value propositions (USPs) to customers. They understood the importance of adapting their marketing communication strategies to align with customer demands in order to foster trust and engagement.

Venturing outdoors, the project team members conducted tests using various Lego prototypes and homemade posters, both on university campuses and in public areas such as train stations. They discovered that not conforming to the traditional image of financial services providers, characterized by suits and ties, already helped mitigate prejudice or negative associations. Additionally, the trial of the preliminary prototypes proved instrumental in fostering more relaxed conversational dynamics.

Engaging with individuals in such a straightforward manner presented a substantial learning curve for them. They had to adapt their approach to asking open-ended questions instead of solely attempting to persuade others about the merits of their prototype.

3. <u>Barclays Bank - Barclays Access: Designing Inclusive Banking</u>
Services:

Design thinking has been at heart of Barclays bank. They are thus able to create products and services that are needed by the end users with a user-friendly interface

Barclays Bank recognized the need to enhance accessibility in banking for individuals with disabilities, prompting the launch of the Barclays Access program. Applying design thinking principles, Barclays embarked on a journey to understand the unique challenges faced by individuals with disabilities when accessing banking services.

Design thinking has been at heart of Barclays bank. They are thus able to create products and services that are needed by the end users with a user-friendly interface.

Barclays Bank **empathized** by engaging in extensive research collaborating closely with disability advocates, customers, and accessibility experts to empathize with the experiences of individuals with disabilities. Through interviews, observations, and participatory design sessions, Barclays gained deep insights into the barriers to accessibility in banking. Based on the insights gathered, Barclays **defined** the key challenges and needs of individuals with disabilities in accessing banking services. These included difficulties in using ATMs, navigating online banking platforms, and interacting with bank staff. With a clear understanding of the challenges,

Barclays facilitated brainstorming sessions and co-creation workshops to ideate innovative solutions. Ideas ranged from tactile-enhanced ATMs and screen reader-compatible online banking interfaces to specialized staff training programs. Barclays rapidly **prototyped** and tested various solutions, seeking feedback from individuals with disabilities at each stage of the design process. Prototypes were iteratively refined based on user feedback, ensuring that the final solutions met the needs and preferences of the target audience. Through usability testing and pilot programs, Barclays rigorously evaluated the effectiveness and usability of the proposed solutions. User feedback was incorporated into further iterations, refining the solutions to optimize accessibility and user experience. Following successful testing and validation, Barclays implemented the finalized solutions as part of the Barclays Access program. This included the rollout of accessible ATMs with tactile features, redesigned online banking platforms with screen reader compatibility, and comprehensive staff training initiatives.

By applying design thinking principles, Barclays transformed its approach to accessibility in banking, creating inclusive services that empower individuals with disabilities to access and manage their finances independently.

4. <u>CIBC Newcomer Banking Program: Designing Financial Inclusion for</u> Newcomers

The Canadian Imperial Bank of Commerce (CIBC) developed the Newcomer Banking Program to address the unique financial needs of immigrants and newcomers to Canada. Leveraging design thinking methodologies, CIBC conducted extensive research to understand the challenges faced by newcomers in navigating the Canadian banking system, including language barriers, unfamiliarity with financial products, and lack of credit history. Based on insights gained from user interviews, prototyping, and testing, CIBC redesigned its banking services to offer tailored solutions such as multilingual support, simplified account opening processes, and financial education resources tailored to the needs of newcomers. The Newcomer Banking Program illustrates how design thinking can drive innovation in financial services to better serve diverse customer segments and promote financial inclusion.

13. BARRIERS TO CREATING INCLUSIVE BUSINESS MODELS

While we may have analysed several good reasons of why it is imperative to design for diverse customers there may still be few setbacks leading to hindrances in this regard. Few of them are as follows.

1. Financial organizations may not be interested in investing in inclusive financial products due to several reasons. There may be a perceived lack of profitability in serving marginalized or underserved populations, as these groups often have lower incomes and may not meet traditional banking criteria. Additionally, developing and implementing inclusive financial products may require significant upfront investment in technology, infrastructure, and staff training to ensure accessibility and cultural sensitivity, which could be perceived as costly and risky. There may also be concerns about regulatory compliance and legal challenges associated with serving diverse customer segments, particularly if there are complex legal or regulatory requirements involved. Financial organizations may be inclined to prioritize short-term profit maximization over long-term social impact, leading them to focus on more lucrative market segments. Overall, while there may be social and ethical imperatives to invest in inclusive financial products, financial organizations may weigh these considerations against potential financial risks and rewards, which could influence their decision-making process.

- 2. Elderly people may continue to be suspicious about investing in high-return, high-risk financial instruments. They may prioritize preserving their wealth and ensuring financial security, particularly in retirement, which leads them to favor safer and more conservative investment options. High-risk investments carry the potential for significant losses, which could jeopardize their financial stability and future well-being. Additionally, elderly individuals may have limited time horizon for investment recovery, making them more risk-averse and cautious about speculative investments. In their life-time, they may have witnessed or experienced financial scams or market downturns in the past, contributing to their skepticism and wariness towards high-risk investments. Overall, the desire for financial security, coupled with concerns about potential losses and past experiences, may lead elderly people to be suspicious or hesitant about investing in high-return, high-risk financial instruments.
- 3. Financial literacy alone may not be enough to motivate women to invest and show interest in diverse and new financial instruments. Societal norms and gender biases may affect women's confidence and willingness to take on investment risks. Women may have different life priorities and financial goals compared to men, such as caregiving responsibilities or longer life expectancies, which influence their risk tolerance and investment preferences.
 Moreover, women may have limited access to financial resources, lower income levels, and disparities in wealth accumulation, which

can impact their ability and willingness to engage in risky investments. Having said that, addressing gender-specific barriers, providing tailored financial education and support, and promoting inclusive investment environments are essential to empower women to make informed investment decisions and overcome barriers to invest in new and inclusive financial instruments.

4. There is a probability that the Canadian government may not prioritize investing time and money in inclusive financial products for diverse customers. Firstly, there may be competing priorities for government resources, such as healthcare, education, and infrastructure, which may take precedence over financial inclusion initiatives. Additionally, the government may rely on private-sector financial institutions to address the needs of diverse customers through market-driven solutions. Moreover, there may be challenges in designing and implementing effective policies and programs that cater to the diverse needs of marginalized or underserved populations, requiring significant investment in research, consultation, and regulatory frameworks. Furthermore, political considerations, budget constraints, and public opinion may influence government decisions on allocating resources to financial inclusion initiatives. Overall, while there may be social and economic benefits to promoting financial inclusion, the Canadian government may weigh these considerations against other priorities and constraints when making investment decisions in this area.

5. Accessibility plays a crucial role in the realm of digital payments, as a user may continue to encounter challenges related to the design and user interfaces of various payment options, despite lacking typical financial or digital inclusion barriers. The correlation between digital inclusion and accessibility necessitates examination not only of the design of digital payment interfaces but also of the intricacy of the payment process and the cognitive demands it imposes on users. This encompasses how users might adopt a payment method, acquaint themselves with it, and explore its interactions with other methods within the payments landscape. While banknotes have traditionally been perceived as an accessible payment method, their usage is declining in favour of digital alternatives. Consequently, it becomes particularly vital to contemplate potential accessibility features and services that could be integrated into new payment technologies to alleviate the escalating complexity of digital products.

Thus, profitability concerns, accessibility issues, investment risk, ease of investments and many other remain as barriers and will need combined effort to alleviate.

To address the challenges hindering the design of diverse financial products, a multifaceted **Knowledge to Action (KTA) plan** is essential. This involves understanding financial institutions' perspectives, including concerns about profitability, upfront investment costs, regulatory compliance, and short-term profit maximization. Advocacy efforts and

educational initiatives are crucial to engage with these institutions, highlighting the social and economic benefits of investing in inclusive financial products and offering training programs to enhance understanding of regulatory requirements and risk management strategies. For elderly customers, tailored financial products and services should prioritize safety and stability while also providing educational resources to build confidence in new investment opportunities. Genderspecific barriers require targeted interventions, such as gender-sensitive financial education and advocacy for inclusive investment environments. Collaboration with policymakers is necessary to advocate for prioritizing inclusive financial products, addressing competing priorities and budget constraints while emphasizing the importance of financial inclusion for economic growth and social cohesion. Enhancing accessibility in digital payments demands partnerships with experts to integrate accessibility features into new technologies, ensuring inclusivity for all individuals. Through collaborative efforts and partnerships across sectors, we can collectively overcome barriers to inclusive finance and promote financial empowerment for diverse populations in Canada.

14. BIBLIOGRAPHY:

- Acorn Canada. (2016). *It's Expensive to be Poor*. https://acorncanada.org/resources/its-expensive-be-poor-how-canadian-banks-are-failing-low-income-communities/
- African Development Bank (AfDB). (2013). *Financial inclusion in Africa* (T. Triki & I. Faye, Eds.). https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Financial Inclusion in Africa.pdf
- Bowles, P. (2015). Urban Aboriginal Individuals' Financial Behaviour and Experiences: Some Focus Group Evidence. *Aboriginal Policy Studies*, *5*. https://doi.org/10.5663/aps.v5i1.23873
- Cabeza-García, L., Del Brio, E. B., & Oscanoa-Victorio, M. L. (2019). Female financial inclusion and its impacts on inclusive economic development. *Women's Studies International Forum*, *77*, 102300. https://doi.org/10.1016/j.wsif.2019.102300
- Chant Link & Associates. (2004). *A report on financial exclusion in Australia*. https://www.anz.com/resources/b/9/b9d9e5004f1d3eb8a57cb558b54e5b8d/Financial-Exclusion-Final-Report.pdf?MODAJPERES
- Chen, S., Doerr, S., Frost, J., Gambacorta, L., Shin, H. S., Bank for International Settlements, & Ernst & Young. (2021). The fintech gender gap. In *BIS Working Papers*. https://www.bis.org/publ/work931.pdf
- Choice, E. (2021, December 16). Will 2022 be the year for tech built for neurodiversity? *Information Age*. https://www.information-age.com/will-2022-be-year-for-tech-built-for-neurodiversity-19227/
- Cole, B. M. (2020). *8 Reasons Why Diversity And Inclusion Are Essential To Business Success.* Forbes. https://www.forbes.com/sites/biancamillercole/2020/09/15/8-reasons-why-diversity-and-inclusion-are-essential-to-business-success/

- Dam, R. F., & Siang, T. Y. (2024, January 12). *Stage 2 in the Design Thinking Process:*Define the Problem and Interpret the Results. The Interaction Design Foundation.

 https://www.interaction-design.org/literature/article/stage-2-in-the-design-thinking-process-define-the-problem-and-interpret-the-results
- Dasgupta, S. (2024b, March 5). *Research Bite: The Changing Landscape of Canada's FinTech Sector.* Ivey Business School. https://www.ivey.uwo.ca/lawrencecentre/news/2024/03/research-bite-the-changing-landscape-of-canada-s-fintech-sector/
- Dillon, L. (2014). *Problem Tree Analysis | SSWM Find tools for sustainable sanitation and water management!* https://sswm.info/taxonomy/term/2647/problem-tree-analysis
- Dupont, A. (2023). *Inclusivity in Canadian payments: Barriers for people with disabilities | Payments*. https://www.payments.ca/inclusivity-canadian-payments-barriers-people-disabilities
- Financial Consumer Agency of Canada. (2023, November 22). *Canadians and their Money: Key Findings from the 2019 Canadian Financial Capability Survey.*Canada.ca. https://www.canada.ca/en/financial-capability-survey-2019.html
- FP Canada. (2024). FP Canada. Default. https://fpcanada.ca
- Graham. (2022, December 1). *Will 2022 be the year for technology built for neurodivergent people?* Information Age. https://www.information-age.com/will-2022-be-year-for-tech-built-for-neurodiversity-19227/
- Hwa, G., EY, Coinbase, Funding Circle, Discovery Group, JD Digits, Juvo, Goldman Sachs, Grab Financial Group, InstaReM, Moneytree KK, & Yolt. (2019). *Global FinTech Adoption Index 2019*. https://www.crowdfundinsider.com/wp-content/uploads/2019/10/ey-global-fintech-adoption-index.pdf

Klepek, C. (0a). Design Thinking: The Case of Banking Services. In *Innovation Management, Entrepreneurship and Sustainability (IMES 2017)* (pp. 416–425). Vysoká škola ekonomická v Praze. https://www.ceeol.com/search/chapter-detail?id=544899

Klepek, C. (0b). Design Thinking: The Case of Banking Services. In *Innovation Management, Entrepreneurship and Sustainability (IMES 2017)* (pp. 416–425). Vysoká škola ekonomická v Praze. https://www.ceeol.com/search/chapter-detail?id=544899

Leifer, L. J., Lewrick, M., & Link, P. (1968). The Design Thinking Playbook.

McEwen, L. (2014, October 1). *Systems Thinking*. Lauren McEwen. http://www.laurenkmcewen.com/articles/2014/10/1/o98tigbpqov0tsagjypgctehdo8oz0

Members of the Financial Inclusion Strategy (FIS) Peer Learning Group. (2017). INTEGRATING GENDER AND WOMEN'S FINANCIAL INCLUSION INTO NATIONAL STRATEGIES. https://www.afi-global.org/sites/default/files/publications/2017-03/GuidelineNote-27%20FIS-Gender%20and%20FIS.pdf

Mindmapping.com. (n.d.). *How To Make A Mind Map*. MindMapping.Com. Retrieved April 25, 2024, from https://www.MindMapping.com

OECD. (2018). *BRIDGING THE DIGITAL GENDER DIVIDE*. https://www.oecd.org/digital/bridging-the-digital-gender-divide.pdf

Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation*.

Pazarbasioglu, C., Garcia Mora, A., Uttamchandani, M., Natarajan, H., Feyen, E., Saal, M., & The World Bank Group. (2020). *DIGITAL FINANCIAL SERVICES*. https://pubdocs.worldbank.org/en/230281588169110691/Digital-Financial-Services.pdf

- PeggyCooke. (2022, September 1). *It's Expensive to be Poor: How Canadian Banks are Failing Low-Income Communities ACORN Canada*. ACORN Canada -. https://acorncanada.org/resources/its-expensive-be-poor-how-canadian-banks-are-failing-low-income-communities/
- Pian, C. (2018, May 3). Design Thinking made actionable. *The Colony*. https://medium.com/the-colony/design-thinking-made-actionable-afb1ef78849
- Prosper Canada. (2015). *Financial Literacy and Newcomers to Canada*. https://www.prospercanada.org/.
- Remes, J., Schmid, M., & Toriello, M. (n.d.). *Getting to know urban elderly consumers | McKinsey*. Retrieved April 24, 2024, from https://www.mckinsey.com/industries/consumer-packagedgoods/our-insights/getting-to-know-urban-elderly-consumers
- Schmieden, K. von. (2018, September 26). *Feeling in Control: Bank of America Helps Customers to "Keep the Change."* This Is Design Thinking! https://thisisdesignthinking.net/?p
- Sinclair, S. (2001). *Financial Exclusion: An Introductory Survey.*https://www.academia.edu/7086629/Financial Exclusion An Introductory Survey
- Sutton-Lalani, A., Hernandez, S., Miedema, J., Dai, J., & Omrane, B. (2023, October 4). *Redefining Financial Inclusion for a Digital Age: Implications for a Central Bank Digital Currency* (2023–22). Bank of Canada. https://doi.org/10.34989/sdp-2023-22
- Wharton School. (2019). Can Fintech Make the World More Inclusive? *Knowledge at Wharton*. https://knowledge.wharton.upenn.edu/article/can-fintech-make-the-world-more-inclusive/
- World Bank. (2022). *Overview—Financial Inclusion* [Text/HTML]. World Bank. https://www.worldbank.org/en/topic/financialinclusion/overview