

M&T

Danvers High School
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Financial Operations Research
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I. EXECUTIVE SUMMARY






HISTORY OVERVIEW

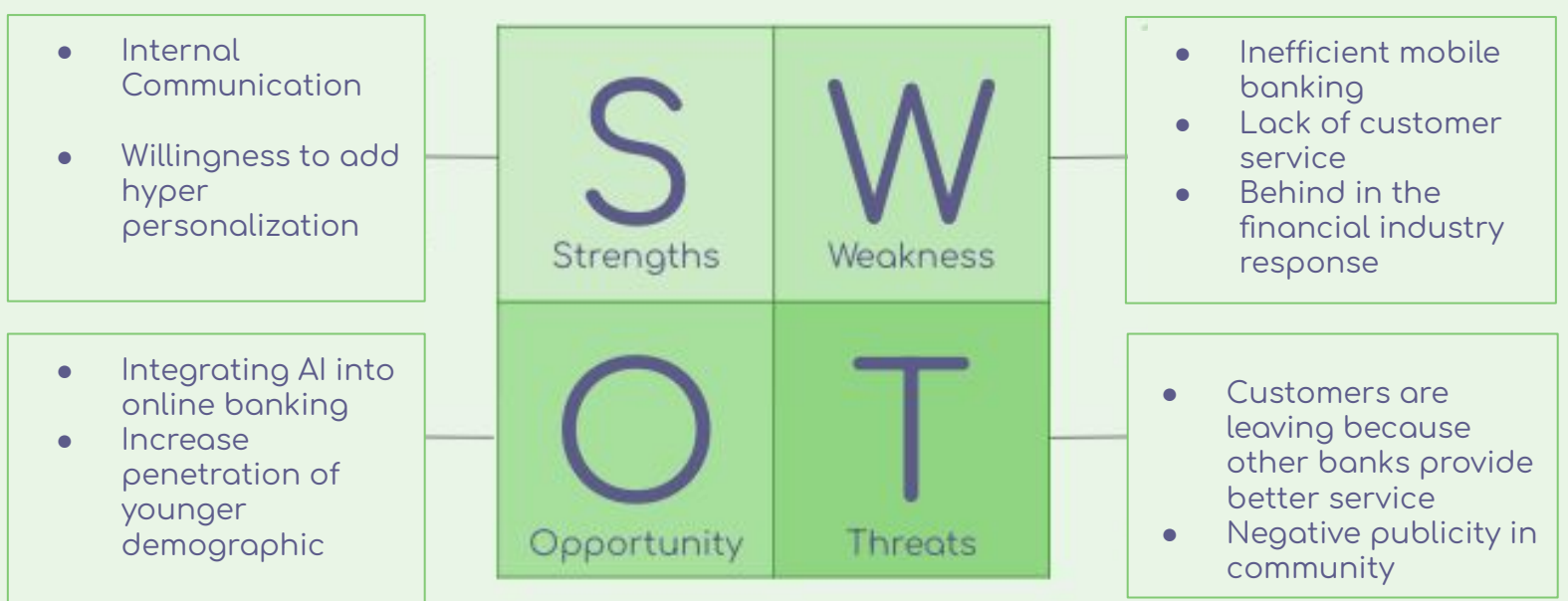
M&T is a trusted bank located on the East Coast of America. The Danvers location started out as Danvers Savings, then merged to People's Bank, and became part of M&T's community in April, 2022. M&T has happily provided banking services for over 150 years and has a long history of community-focused banking. They have over 1,000 branches and are located in ten states plus Washington DC. With \$124 billion in assets, M&T is ranked as one of the top Small Business Administration Lenders.

TARGET MARKET

- Current**
- ★ Many customers originally started at Danvers Savings
 - ★ 40-65 years old
 - ★ Stayed through three bank changes
 - ★ Live in Danvers or close community
- Future**
- ★ Children of existing customers (custodial accounts)
 - ★ Previously attached to parents accounts
 - ★ New account holders are late teens, 20+
 - ★ Living in Danvers in parents house or newly independent

RESEARCH METHODS USED

 <p>Online research and reading articles specific to hyper personalization, websites, and watching videos about artificial intelligence (AI)</p>	 <p>Analyzed M&T's background, current marketing strategies, and website</p>	 <p>Surveyed Danvers High School students and various adults regarding their banking knowledge and habits</p>	 <p>Reviewed online customer feedback and reviews across multiple sites</p>	 <p>Researched how other industry leading companies utilized AI strategies in their systems</p>
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FINDINGS

Key takeaways

Background research

- AI creates a safer banking environment
- AI produces a more efficient banking system
- AI helps predict what is going to happen with the market

Customer reviews

- M&T is understaffed
- Customers are displeased at the lack of communication and efficiency within the bank

Community survey

- Children generally use the same bank as their parents when they initially open a bank account
- M&T users aren't satisfied with the setup of the bank

Company research

- Major companies such as Amazon, Google Cloud, and OpenAi utilize specific AI in their companies that M&T can adopt into their banking system such as personalized marketing and advanced chatbots

M&T promises

- The merge with People's Bank and M&T was not smooth- it caused problems for the customers such as problems within the app and poor customer service
- M&T is desperately trying to fix their mistakes and make the customers satisfied again

Employees

- Employees are disappointed with M&T's progression towards their full potential
- They like the way they are being treated
- The employees like the communication within the business

Negative effects

- Customers have some hesitation trusting AI within banking and finance

CONCLUSIONS

1

2

3

4

5

AI can help M&T improve customer and employee experiences by adding chatbots, reducing the amount of wasted time, and increasing efficiency

Customers are unsatisfied with M&T's online banking and want a more functional design and a faster banking experience

People are willing to stay in the same bank in order to keep their banking history (and therefore their spending patterns) in one place to improve AI fraud detection and security

Although AI can be useful for many tasks, there are some risks to using AI, such as people worrying about being tracked and what is happening to their data

Companies such as Amazon, Google Cloud, and ChatGPT use advanced types of AI that M&T can replicate and implement into their systems to make a better bank

PROPOSED STRATEGIC PLAN AND PROPOSED BUDGET



CREATE better customer service

Customer service training

AI chatbots

C

\$9,000



APPLY new security features

Updating the mobile app

Updating the website

A

\$114,000



SIMULATE a customers thought process

Tracking and collecting data

Determining patterns

S

\$78,000



HELP monitor

Risk management

Regulatory compliance

H

\$42,000

Updating AI chatbots

\$3,000

Customer service training

\$6,000

Updating the mobile app

\$48,000

Updating the website

\$66,000

Implement new AI tracking and data collecting

\$78,000

Adding in technology to management of customers and business

\$42,000

YEARLY TOTAL= \$243,000

Activity	Metric	Poor	Good	Excellent
Customer satisfaction	Increase of online ratings about M&T about customer service	>60% rating on app store	70-80% rating on app store	90%+ rating on app store
Reduction of customer service wait time	Reduce the amount of time the customer has to wait to be able to talk to an employee	10+ Minutes of waiting	3-5 Minutes of waiting	<2 Minutes of waiting
Increase in website/app usage	Analyze the amount of new website and or app users	>800 new website users per month and >1500 website visits	1000-1500 new website users per month and 2500-5000 website visits	2000+ new website users per month and 5000+ website visits
Length of time, and amount of clicks on website	Focus on the amount of time a customer has to spend and efficiency of finding what they need	17+ minutes spend and 10+ clicks	8-11 minutes and 5-7 clicks	7 or less minutes and 3 clicks
AI chatbots	Look at how many customers actually utilize the AI chatbots and how they rate them at the end with a small survey	>150 AI chatbot uses per month and >5% took survey	250-400 AI chatbot uses per month and 10% took survey	400+ AI chatbot uses per month and 20%+ took survey
(conversion rate) Increase in sales based off recommendations	Recommendations on investments or products etc. to the customer based off of collected data turned into sales	>5% Turned into sales	5-10% Turned into sales	15%+ Turned into sales
Measuring risk factors	Look at the decrease in customers making poor decisions regarding the risk factor	<20% Decrease	25-30% Decrease	35%+ Decrease

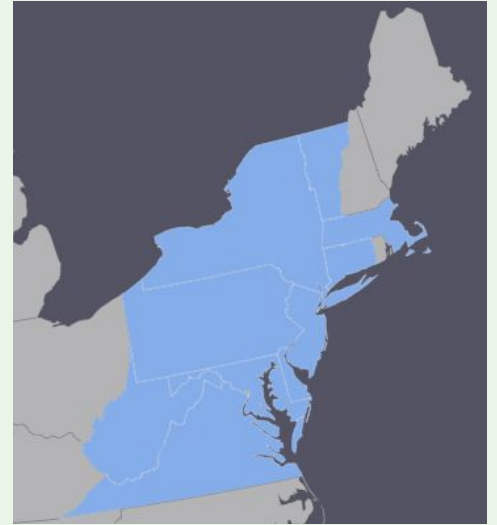
II. INTRODUCTION

A. Description of the business or organization

HISTORY OVERALL

M&T has been a trusted bank since **1856**, and was founded in Buffalo, New York by Pascal Pratt and Brownson Rumsey. Throughout the US, there are over **1000** branches located in **ten states** and Washington DC. With a **\$124 billion in assets**, they are ranked as one of the **top Small Business Administration (SBA) lenders** nationally according to statistics released by the SBA for total approved loans through the SBA's program during the fiscal year ending 9/30/20.

States M&T is in



DANVERS BANK HISTORY



Recently, M&T took over People's United Banks including one in Danvers, MA. M&T has **three branches in Danvers** with three different ATM's. Danvers is located in Essex County, Massachusetts and has a **population of 28,400** as of 2020. There are currently **11 branches of 9 different banks in Danvers, MA.**, such as Salem Five and Santander.

This location of M&T bank started out as **Danvers Savings** and was taken over by People's Bank in 2011, this was a rocky transition. People's Bank wanted to minimize the amount of employees they needed to lay off, but they **laid off about 91 employees**, which was nearly a quarter of Danvers Bank local workforce. A handful of long-time employees chose to leave due to the acquisition.

In April of 2022, **M&T took over People's Bank**. On April second, René Jones said that "Today marks an important day in M&T's history as we welcome People's United to our family". **M&T will build on People's United's complementary footprint to reach a broad range of customers and expand into new regions.** The franchise will operate across some of the most populated and attractive banking markets in the U.S.

VALUES AND ACTIVITIES

In addition to expanding their footprint, M&T is committed to **donating** and **supporting** their **community**. In May 2022, there was a launch “of a **\$25 million** philanthropic initiative to support **lower-income** communities and **underrepresented** groups — with most of the funds set to be disbursed to Connecticut-based organizations”. This is a “**five-year community growth plan** – developed in collaboration with the National Community Reinvestment Coalition (NCRC) and local community organizations – that will provide **loans, investments and other financial support** for low-to-moderate income (LMI) families and neighborhoods across the combined M&T and People’s United footprint.” M&T’s values are based on **POWER**.

Partnership - working together as one team. They are transparent and share what they know, plus they are inclusive and value diverse perspectives. M&T celebrates their successes.


Ownership - They understand what’s important to their customers and communities. they follow through on commitments and execute with urgency. They act responsibly to preserve our future.

Wonder - They never stop learning and encourage creativity. They embrace and adapt to change. We are empathetic and listen actively.

Equity - They are open, honest, seek and share feedback. They question behavior that doesn’t align with our values.

Rectitude - They treat others with respect. They do the right thing, even when nobody's watching, and they trust each other to do what’s best.

B. Description of the target market (demographics and psychographics)

	Demographics	Psychographics
<p>Current customers</p> 	<ul style="list-style-type: none"> -Many were original customers of Danvers Savings -40-65 years old -Stayed through three bank changes -Live in Danvers or close community 	<p>Customers wanted to support a Danvers business, and Danvers Savings Bank was close and easy for them. The ease of having a bank in the same town as they lived in was a great appeal for the customers when it was Danvers Savings Bank. As the bank changed, the location stayed the same so it made sense for the customers to stay the same. Having the whole family in one bank also creates a sense of satisfaction.</p>
<p>Future customers</p> 	<ul style="list-style-type: none"> -Children of existing customers (custodial accounts) -Previously attached to parents accounts -New account holders are late teens, 20+ -Living in Danvers in parents house or newly independent 	

Target Market

M&T bank targets a **diverse** range of customers, including **individuals, small businesses, and commercial customers**. They offer a **wide range** of banking products and services to meet the needs of these different customer segments.

For **individual** customers, they offer **personal checking savings accounts, credit cards, loans, and mortgages**. They also provide **online and mobile banking** services to make banking more **convenient** for these customers.

For **small business** customers, they offer **checking and savings accounts, loans, and lines of credit**, as well as **specialized services** such as **treasury management and merchant services**, they also have a **dedicated team** of small business banking specialist to provide **personalized services and advice**.

For **commercial** customers, they offer a range of products and services including **commercial loans, line of credit, and cash management services**. They also have **specialized teams** that cater to specific industries such as **healthcare, non-profit, and commercial real estate**.

C. Overview of the business or organization's data collection practices for business decision making

M&T has an online website that customers can use to answer basic question. The website has features that allow customers to look at accomplishments throughout the years and overall information about M&T. Alongside that, they also have an online banking app that customers can utilize. Their collection data is slow and not always reliable.

Transactional Tracking

Helps the customers to keep track of their financial transactions in real-time. This system enables customers to monitor their account balances, view their transaction history, and receive alerts for specific transactions or balances. The system is secure, using encryption technology and authentication to protect customer data.

Online Tracking System

M&T's online tracking system enables customers to manage their financial transactions from anywhere, at any time. The platform allows customers to view account balances, transfer funds, pay bills, and access transaction history, among other features.

Social Media Monitoring

The bank monitors its online reputation and responds to customer feedback/inquiries promptly. The bank uses various social media platforms, including Twitter, Facebook, and LinkedIn, to engage with customers and provide updates on its services and products. M&T Bank's social media monitoring team monitors the platforms for any mentions of the bank, its products, or services.

M&T Current Surveying

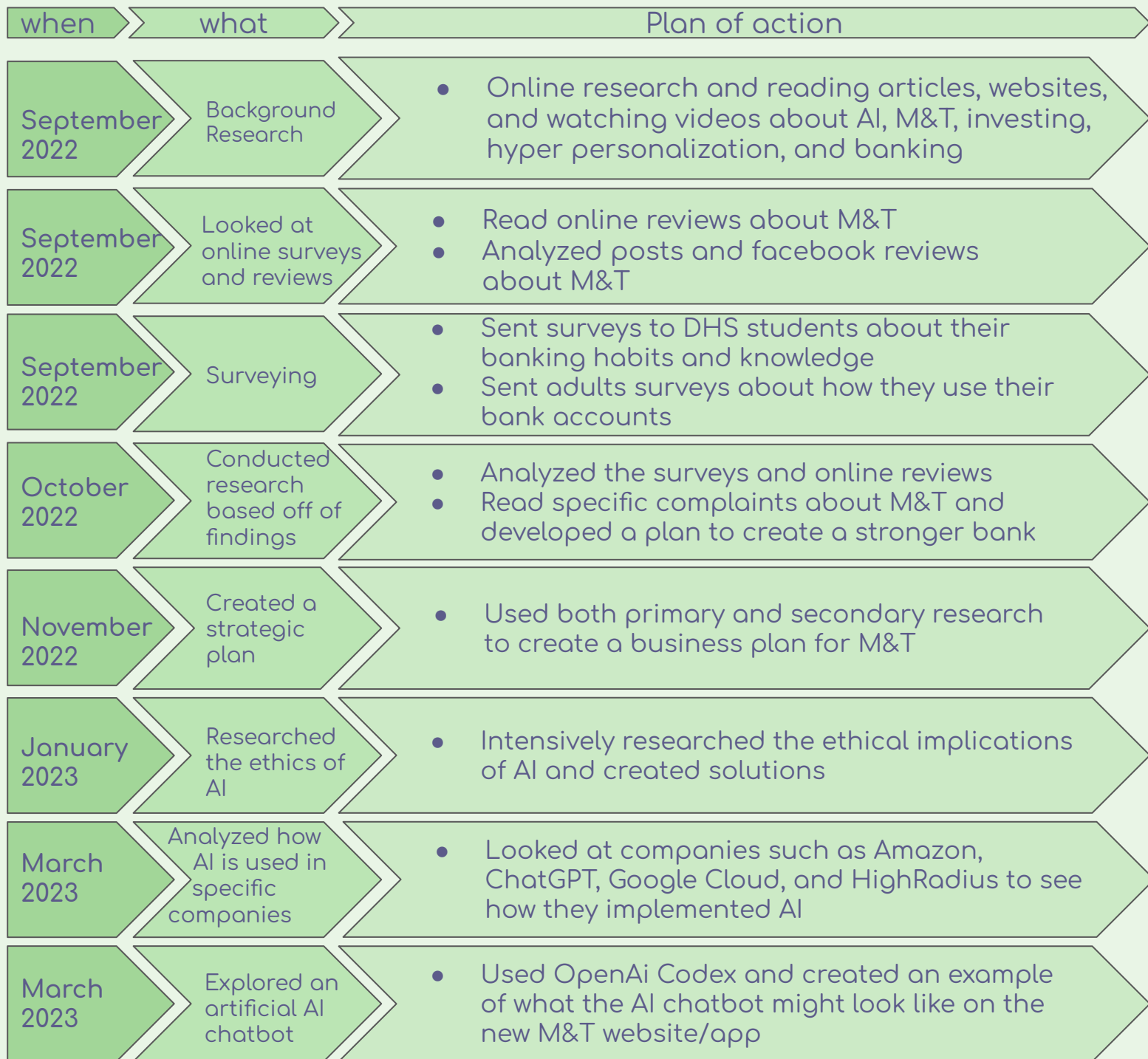
M&T conducts customer surveys and focus groups to gain valuable insights into customer satisfaction and preferences. They use various methods, including online surveys, phone surveys, and in-person focus groups, to collect feedback from customers.

III. RESEARCH METHODS

A. Description and rationale of research methodologies selected to conduct the research study

Research method used	Description	Rationale	
Preliminary research Steps 1-3	1) Explored what AI is and how businesses leverage in marketing	I reviewed many articles and YouTube videos that explained what AI is and how it works. Expanded upon my understanding of AI and how it is being utilized within marketing.	I gained a broader understanding of AI, also learned about AI's application for fraud detection, chatbots, and how to create a better customer experience.
	2) Investigated M&T	I researched M&T website and online reviews about their company, including the navigability and landing page.	From this, I generated ideas of how to solve specific problems such as customer service and the overall employee workspace.
Primary research Steps 4-5	3) Researched hyper personalization	I watched industry specific articles/videos and looked at specific articles about hyper personalization within banking.	This helped me gain more knowledge about hyper personalization in banks and how I could integrate it into M&T.
	4) Surveyed students at DHS	I developed and executed a survey specific to understanding students banking habits and banking knowledge.	Surveying the students showed how much knowledge about banking and investing kids around the ages of 14-18 have.
	5) Surveyed adults	I created and executed a survey to a variety of adults about their banking habits and banking knowledge.	I gained a broader understanding of how adults interact with banks and how they use them in their daily lives.
Secondary research Steps 6-7	6) Looked at online customer reviews	I reviewed local social media pages, online reviews, and other generated responses to determine what was/wasn't working for the community.	Looking at what M&T customers had to say helped me gauge what M&T was doing well and what needed improvement.
	7) Looked at online reports	I looked at websites to determine how the general views M&T.	Investigating what the general community said helped with my understanding of M&T overall
	8) Researched the negative effects of AI	I understood the concerns about the negative effects of AI, analyzed them and developed conclusions.	I learned why customers had hesitation trusting AI within banking then created solutions that would make them feel safe.
Post research Steps 8-10	9) Analyzed how other companies utilize AI	I researched companies such as Amazon, Google Cloud and OpenAi and how they use AI in their workspace.	I observed how I could specifically implement AI into M&T, looking at which features companies already used and how effective they were.
	10) Explored an AI chatbot	I sampled different set ups of how I could create an advanced AI chatbot for the website/app.	This helped me truly visualize what the AI chatbot could look like within M&T. I got a first hand understanding of this new customer experience.

B. Process used to conduct the selected research methods



SUMMARY OF PROCESS

Throughout my research, I used a **variety** of methods which consisted of **online articles, surveying, and online reviews**. I started out with background research of the company so I could see what M&T valued. I also looked at artificial intelligence, hyper personalization, and banking so I had a **better foundation**. I then sent out surveys to see how people around me used banks and how much they knew about them. I looked at posts about M&T which helped me **gauge** what customers did and didn't like about M&T. I then **created a plan** that allowed me to execute my research process in a efficient and successful way.

IV. FINDINGS AND CONCLUSIONS

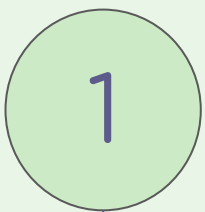
A. Findings of the research study

KEY FINDINGS ONE: BACKGROUND RESEARCH

Key Takeaways

After reading many different articles and watching videos, I understand the main uses of artificial intelligence and hyper personalization within banking. It is the future of technology and essential to use AI to create a more efficient, faster, and secure bank. The main areas to use AI are in fraud detection, facial/voice recognition, predictive analytics, AI chatbots that are more advanced, and better security.

- AI creates a safer bank
- AI produces a more efficient banking system
- AI helps predict what is going to happen with the market



Fraud Detection
AI can **collect data** and analyze how customers **utilize** their money, **travel** habits, and learn their **spending** patterns. The bank can use AI to closely **monitor** every **transaction** and if there is an unusual spending or **change** within their bank account, the customer will immediately get a **“check in” notification.**

Predictive Analytics
Using AI in banking is going to the **next level.** The artificial models in banks are used to **analyze the trends** of countless financial markets and can **predict** the markets conditions plus provide **realistic insights** to the markets trends. Using **machine learning*** techniques, AI models can predict very **accurate** predictions of the markets, this is being increasingly used in banks.

Guaranteed Security
Applying AI ensures **high-level** banking **security**, especially within **mobile apps.** Integrating AI into the banking app helps **monitor every transaction** and **protect** the customers bank with precautions that act similar to a **firewall.**

Facial/Voice Recognition
As banking **rapidly** transitions over to **online banking**, there becomes a huge **risk factor- security.** Being able to use **AI facial/voice recognition** is one step further to **ensure only you** can access your online banking app.

Advanced AI Chatbots
Utilizing Artificial Intelligence in **chatbots** helps customers in various ways. It is used to help **modernize** the way businesses provide and care for their customers. AI chatbots can assist customers **24/7** giving them **accurate** responses to their questions. These chatbots can give the users a **personal and successful experience.** Using AI chatbots also optimizes the use of employees who could be doing other things that require human assistance.

*Machine Learning Techniques- It is an algorithm that allows systems to access, learn, and evaluate data without any human intervention

KEY FINDINGS TWO: CUSTOMER REVIEWS

3.8



Average customer review of M&T

M&T Bank just bought People's Bank. My old bank. Since the takeover, existing People's customers could not log into their accounts. Then customer service was so overloaded. They do not answer the 800 number even after 1 hr wait.

Tim of Effingham, NH Sept. 9, 2022

Since People's United Bank was purchased by M&T Bank over a month ago, I have not been able to get into my account online. I keep getting locked out and have to go the bank to check my checking account balance. **Jane of Greenfield, MA Sept. 19, 2022**

I had a great experience until I opened a checking account and tried to access my mortgage and checking account online. I have not had access online to pay bills or access transfers or any other service for almost a month. The local bank tells me I have to call the 800 number. I have spent hours on hold and still those answering the phones are not able to fix the issue.

Ellen of Bethany Beach, Oct. 8, 2022

System unavailable alert received every time, day or night. Ongoing issue since merger with People's United. Waited 40 mins for rep who was unable to assist

Mary of Aurora, ME Sept. 29, 2022

I have been waiting 32 minutes with no sign of the phone being picked up.

Charles of Westport, CT Oct. 4, 2022

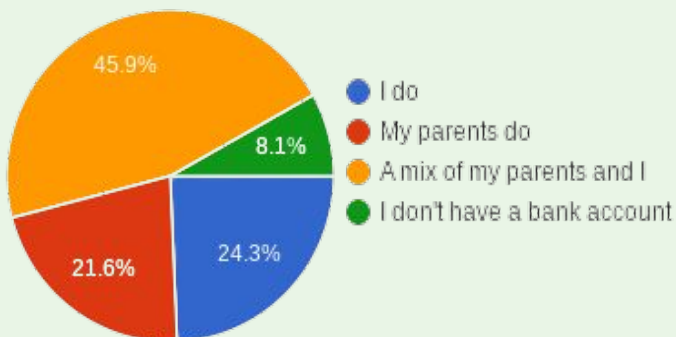
After researching various online reviews, I found out that customers are unhappy with the customer service. M&T is understaffed and cannot properly assist the customers. They're becoming so angry they're willing to switch banks. This has been an ongoing problem since the merge from People's Bank and M&T. This isn't just one M&T bank, this is a problem within all of the M&T banks.

Key Takeaways

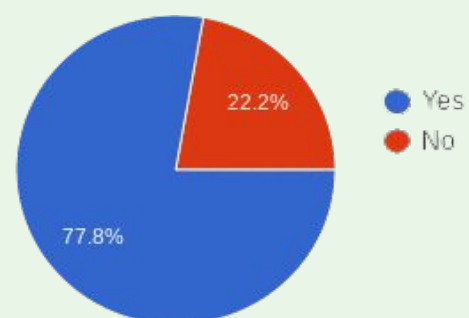
- M&T is understaffed and unable to properly respond to customer concerns
- Customers are frustrated at the lack of communication and efficiency within the bank
- Employees were not properly trained or supported through the acquisition

KEY FINDINGS THREE: COMMUNITY SURVEY

If you do have your own bank, do you take care of it or does your parents?
(DHS STUDENTS)



Are you in the same bank as your parents?
(DHS STUDENTS)



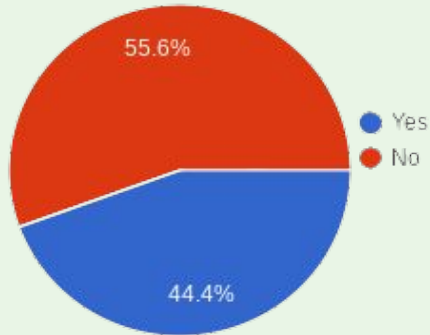
Key takeaways

Do you resent switching banks? If so, what would make the process easier for you? (ADULTS)

“Switching banks can be such a pain, it would be useful for someone to sit down with me and switch over all the websites/places my bank is tied to”

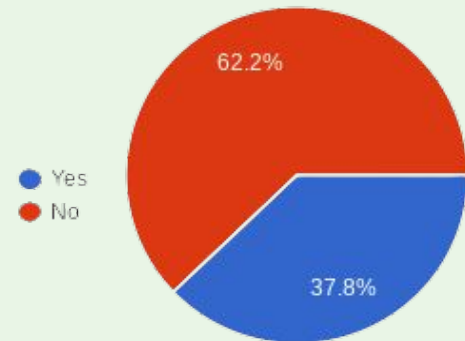
- Children generally use the same bank as their parents
- M&T users are frustrated with the bank set up

Is M&T your bank?
(ADULTS AND DHS STUDENTS)



Surveyed 138 people in total, a combination of students, adults, and young adults

Do you like the way M&T is set up?
(ADULTS AND DHS STUDENTS)



KEY FINDINGS FOUR: AI RESEARCH WITHIN COMPANIES

amazon

Amazon

Exemplary excellence

- Personalized Recommendations powered by AI algorithms that analyze customer data to provide personalized product recommendations.
- By analyzing data on product demand and supply, AI algorithms can predict which products will sell fastest and where to place them in the warehouse to maximize efficiency.
- Analyzes users behavior patterns, transaction history, and other data to identify potential fraud and prevent it from occurring.

What M&T can implement

- Personalized Marketing: Amazon's recommendation engine is powered by AI algorithms that analyze customer data to provide personalized product recommendations. M&T Bank could potentially use similar technology to analyze customer data and provide personalized marketing offers and promotions, improving customer engagement and retention.
- Loan Underwriting: Amazon uses machine learning algorithms to analyze large datasets and make informed decisions. M&T Bank could potentially use similar technology to analyze loan applications and creditworthiness of borrowers, helping them to make more informed and accurate loan decisions.
- Fraud Detection: Amazon uses machine learning algorithms to detect and prevent fraud on their platform. M&T Bank could potentially use similar technology to monitor customer transactions in real-time and identify potential fraud, flagging them for further review.



Google
Cloud

Exemplary excellence	What M&T can implement
<ul style="list-style-type: none"> - Natural Language Processing: Offers services for text analysis and language understanding, such as sentiment analysis, entity recognition, and language translation. - Machine Learning: Google Cloud offers a range of tools for machine learning, including TensorFlow, AutoML, and AI Platform, which can be used to build and train custom machine learning models. - Chatbots and Virtual Assistants: Google Cloud provides tools for building chatbots and virtual assistants that can handle customer inquiries and support requests. - Predictive Analytics: Google Cloud offers services for predictive analytics, such as demand forecasting and fraud detection. - Image and Video Analysis: Google Cloud provides tools for image and video analysis, including object recognition, face detection, and content moderation. 	<ul style="list-style-type: none"> - Cloud AutoML: This is a suite of machine learning products that enables developers with limited machine learning expertise to train high-quality models specific to their business needs. M&T Bank could use Cloud AutoML to build custom models for fraud detection, risk assessment, and customer service. - Dialogflow: This is a natural language processing (NLP) platform that allows developers to build chatbots and virtual assistants that can converse with customers in a natural, human-like manner. M&T Bank could use Dialogflow to create virtual assistants that can help customers with banking tasks such as checking their account balance, transferring funds, and paying bills.



Openai-
ChatGPT (product)

Exemplary excellence	What M&T can implement
<ul style="list-style-type: none"> - Uses a combination of natural language processing (NLP), deep learning, and machine learning algorithms to understand and generate human-like responses to questions and prompts - Displays classification, sentiment analysis, entity recognition, and language translation - Designed algorithms to use feedback mechanisms to adjust and optimize their responses based on previous interactions - Utilizes natural language input in a way that simulates human conversation, making it possible to provide useful information and assistance to users in a variety of contexts 	<ul style="list-style-type: none"> - Customer service: ChatGPT can be integrated into M&T customer service system to provide fast and accurate responses to customer inquiries. Customers interact with the AI-powered chatbot, helping them with various questions related to their accounts, transactions, and other banking services. -Risk assessment: M&T Banks can use ChatGPT to assess credit risk by analyzing customer data, transaction history, and other financial information. The AI can help the bank identify customers who may be at higher risk of defaulting on loans, allowing the bank to take appropriate measures to minimize risk. - Compliance: ChatGPT can help M&T Banks comply with regulatory requirements by analyzing large volumes of data to ensure that the bank is adhering to regulations related to anti-money laundering, fraud prevention, and other compliance requirements

KEY TAKEAWAYS

- Major companies such as Amazon, Google Cloud, and ChatGPT utilize specific AI in their companies that M&T can adopt into their banking system

KEY FINDINGS FIVE: M&T PROMISES

“Clients of People’s United will continue to be served through its current branches, websites, mobile apps, financial advisors and relationship managers until its brand and systems are fully converted to M&T’s, which is expected to occur in the third quarter of 2022”

As November comes to an end, M&T has still not fulfilled this promise. Customers are angry and continuing to have problems with the app

“M&T Bank’s commitment to compensate customers who were adversely impacted by the conversion — whether missing payments or denied access to their money — is a welcome step toward making things right”

“Owning up to our mistakes, working diligently to remedy them, and taking actions to protect our customers against loss or other harm”

M&T is trying to fix the problems they have created for their customers. Richard Blumenthal, Elizabeth Warren, Bernie Sanders, Patrick Leahy, and Ed Markey, voiced their concerns regarding the conversion that accompanied the banks’ \$7.6 billion merger. They say “Consumers need swift relief and remedy now for the hardships and stress the conversion failures caused”

Key Takeaways

- The merge with People’s Bank and M&T was not smooth- it caused problems for the customers
- M&T is desperately trying to fix their mistakes and make the customers happy again

KEY FINDINGS SIX: EMPLOYEE

CONSTRUCTIVE

“M&T is struggling to understand what it will take to meet industry standard in a lot of ways. Some of the existing structure is preventing us from getting there. We’re in our own way”

“I’m being overworked”

Employees are frustrated because M&T isn’t taking the correct steps to help further the business. They think there is more that M&T could be doing to improve. They also feel like M&T is understaffed and they are working too much

POSITIVE

“Everybody works together and well with each other”

“For the most part there is a lot of open communication about changes to come and what is happening”

The employees feel safe and as if they are part of a community when they are working with M&T. They believe that there is a strong sense of communication between everyone.

3.5



Employee rating

Key Takeaways

- Employees are unhappy with the progression of M&T
- Employees overall are satisfied with professional treatment in the workspace
- The employees are satisfied with the communication within the business

KEY FINDINGS SEVEN: THE NEGATIVE EFFECTS OF AI

Tracking Issues
 To be able to properly implement AI, it needs to track the customers on a new level, although the tracking is done safely, people still have concerns about constantly being tracked online

Dependency and Reliance
 As banking organizations increasingly rely on AI systems to make decisions, they may become less able to function without them, which could create a dependence that could be difficult to break and could lead to future problems

Bias
 AI systems can perpetuate and even amplify biases that are present in the data they are trained on which may lead to unfair treatment of certain groups of people.

Job losses
 AI- powered systems may automate tasks previously performed by human workers, resulting in job losses and economic displacement.

Security Risk
 AI systems used in banking may be vulnerable to hacking or other forms of cyber attacks which could result in financial losses and harm to customers

Ethical concerns
 AI powered systems will be making decisions on people's financial lives, the systems may be making assumptions or even errors that could have huge consequences, if these ethical concerns are not addressed it could lead to mistrust of AI in the industry

Lack of Transparency
 AI systems can be difficult for humans to understand and interpret, which can make it hard to explain how they arrived at a particular decision or action

- KEY TAKEAWAYS**
- Using AI puts information in a sensitive position
 - Customers and potential customers are fearful of ethical implications in using AI in finance/ data

People- Employees are happy with their treatment

Resources- One of the nation's top-ranking SBA (Small Business Administration) lenders

Innovation + ideas- Uses a mobile app
 Helps the community

Marketing- Is known for offering advice, guidance, expertise, and solutions across the entire financial spectrum

Finance- Has \$124 billion in assets

People- The customers are unhappy with the customer service and the lack of communication

Resources- Owns most of their buildings instead of leasing them which is increasing the net accumulation depreciation

Innovation + ideas- The mobile app is lacking in features and other banks have better apps and websites

Marketing- there are various legal cases pending against M&T which could hurt the brand name

Finance- M&T's earning assets as a percentage of total assets have been declining

<p>S Strengths</p>	<p>W Weakness</p>
<p>O Opportunity</p>	<p>T Threats</p>

People- Communication with customers

Economic- Help people get out of debt due to the pandemic

Social- Huge rise in the use of social media

Technology- Use of GTP chatbot created by OpenAI, increase in the use of mobile app and advance/update it

Legal- Use more privacy policies to protect people's data and better fraud detection

Environmental- M&T is in a good geographical area and has easy access to get there.

Economic- People are in real financial problems and in debt due to the pandemic

Social- Many competing companies use social media to their advantage, better than M&T does

Technology- AI might result in the bank being unable to meet gender and diversity targets meaning they won't be able to build a broader customer base. This means they won't be able to offer specific products to people from lower socioeconomic backgrounds.

Legal- Could breach privacy laws in using data for AI purposes

Environmental- Competing banks are very close by and easy to get to

B. Conclusions based on the findings

CONCLUSION ONE

Artificial intelligence can be used in M&T to help customer and employee experiences

Reasoning

As I researched before, using AI in banks create better security, fraud detection, more advanced AI chatbots, helps predict analytics, and uses more advanced facial/voice recognition within the mobile apps. All of these together helps improve the customer experience because they feel at ease and are assured that their money is being kept safely. AI also improves the employees experience because they aren't having to do unnecessary jobs that AI can take care of.

CONCLUSION TWO

Customers are frustrated with the setup of M&T, especially the online banking

Reasoning

As banking rapidly transitions over to online banking, M&T has to keep up with the new technology. Unfortunately, customers are not happy with the online service and are resenting the set up. Customers are angry that there's nobody to talk on the phone and that the chatbots aren't being specific enough. There have been problems with the online banking for a while now.

CONCLUSION THREE

Customers are willing to stay in the same bank in order to keep their banking history (and therefore their spending patterns) in one place to improve AI fraud detection and security.

Reasoning

When AI is heavily integrated in banks, staying in the same bank is a relief for customers. The data that AI can collect will assure the customer that they are in the best bank possible. The longer a customer stays with the same bank, the more data can be analyzed so it can have the most accurate response to transactions. By integrating more AI into M&T, customers are going to be more willing to stay even with other problems going on.

CONCLUSION FOUR

Although AI can be useful for many tasks, there are ethical concerns and risks to using AI

Reasoning

People are worried about AI and how it is going to affect their bank and their everyday lives. Being tracked is a huge concern for some and there are a handful of major ethical concerns. They are worried about how reliant M&T might become with AI, the bias that can come with AI, jobs that will be lost due to AI taking over humans jobs, making the bank vulnerable to hacking, especially in the earlier years of using AI, and a lack of transparency for the customers.

CONCLUSION FIVE

Companies use advanced types of AI that M&T can replicate and implement into their systems

Reasoning

Companies such as Amazon, Google Cloud, and Openai (ChatGPT) utilize high-tech and secure types of artificial intelligence into their companies and M&T can take inspiration from those companies. These companies have AI to help with regulatory compliance, risk management, loan underwriting, fraud protection, personalized marketing, and more. M&T can take specific aspects of these AI programs to overall better the bank and experience for the customers/employees

V. PROPOSED STRATEGIC PLAN

A. Objectives and rationale of the proposed strategic plan

CREATE

better customer service

BENEFITS

Long term- Employees will not feel as stressed by having to deal with customers on the phone 24/7 and can work on more pressing matters.

Short term- It reduces complications quickly and creates a structure for both the employees and customers.

RATIONALE- To satisfy both the customer and employee needs, there must be a balance between AI chatbots and employees on the phone.

APPLY

new security features

BENEFITS

Long term- Customers will be willing to stay long term at M&T and not consider switching banks because they are happy with the security/services.

Short term- M&T's new features will gather the attention of possible new customers.

RATIONALE- In order to keep a happy customer, it is important for them to feel safe at their own bank, and feel like their money is being protected.

SIMULATE

a customer's thought process

BENEFITS

Long term- Help customers achieve their long term goals such as saving for a house, child, college, retirement, etc.

Short term- M&T employees can set the customers on the right path to completing their goals or simply help them set up a successful path.

RATIONALE- It is vital for a company to have a solid customer base. M&T's employees will start to learn more about customers and be connected to their lifestyle on a whole new level.

HELP

monitor

BENEFITS

Long term- Can analyze long term data and predict very accurate outcomes for risk management

Short term- Attracts new customers due to M&T having features that other banks do not acquire.

RATIONALE- It is very important for M&T to follow the patterns in the banking world so they can assess the situation properly and give customers the best advice possible.

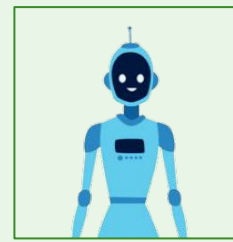
B. Proposed activities and timelines



Create better customer service

AI phone call/chatbots

To maximize employee's value added customer interactions, M&T will triage more basic/ tedious online and phone interactions via AI chatbots. These AI bots will run security checks and then once the security checks are complete, it will help solve problems and answer questions such as how to replace a card, what to do if your card is stolen/lost, requesting a loan, etc . Customers who need more advanced help will be connected to a customer service specialist. one specific programs M&T can use is Dialogflow. This system will relicape a chatbot that can converse with customers in a natural, human-like manner. natural language processing (NLP), deep learning, and machine learning algorithms to understand and generate human-like responses to questions and prompts



Hi! My name is Eve, I am in training. Let me show you what I can do.

C My software has been updated, so I can answer questions with more sophistication. I am able to quickly run analysis's and gather data so I can give the best response that's faster and near perfect to a human's response

A Alongside being able to answer questions, you can also tell me your complaints. You can suggest new things such as specific updates you want to see within M&T and I will be able to gather that information and relay it to my human workers

S I will be keeping tabs on you, collecting your data (securely and privately, not being shared with others) , and saving it to your own personal file. This helps me for when you have questions, because I am then able to answer specifically to you and have information readily available.

H To make the the best bank, I am able to take everyone's data (anonymously) to be able to efficiently assess a large amount of data points, quickly noticing patterns to protect against losses and boost return on investment (ROI) so I can notify you of any concerning behaviors.



Customer service training

To make sure customers are getting top tier service, M&T will arrange a training every six months for the customer service workers. This will be mandatory and the workers must complete this training before they start working at M&T. These employees will be divided up into certain specialties for customer service so they can be the best in one subject. They will be answering customers if the AI bots cannot sufficiently help the customer. Through my research, I have found that some customers do not want to talk to an AI chatbot. My solution to this is creating an "I want to talk to a human" button. Being able to have that option is important for customers.



Apply new security features

Update the mobile app

A huge step that M&T is taking to better the company is by majorly updating the apps. They will be adding in brand new features including advanced AI chatbots, improved loan/facility evaluations, data analysis, facial and voice recognition, and better fraud detection. M&T will be continuously working on this over the next year.

Specific app updates

AI chatbots- To improve security, M&T will implement AI customer validation questions on the mobile app, website and phone.

Facial and voice recognition- To add in another layer of protection, M&T will add in voice and facial recognition to make customers feel more protected.

Data analysis- M&T will use AI to analyze customer's banking habits and track how they utilize their money so employees can properly assess and assist customers.

Fraud detection- AI will further analyze and flag suspicious activity and notify customers.



B. Proposed activities and timelines



Simulate a customer's thought process

Determine patterns

Using AI, M&T will track and analyze each customer's spending categories, large purchases, travel, savings and investing. With the help of AI, M&T will automate customer recommendations and employees will have a full rundown of the customer profile for in person meetings. Determining patterns is an effort to keep the customer safe and identify changes or anomalies.

Recommend actions

Using the data M&T collected and customer specific goals, they will be able to upsell the customer on new products (CDs, bonds, loans, etc.) to help them achieve long term goals such as saving for a house, child, college and retirement. This helps the customer reduce expenses by analyzing their spending habits or for investing based on their risk profile and time horizon.

Data collection

-31 years old
-Married
-Looking to start a family
-Makes 250k a year combined with her husband
-Both people are done paying off college debt and in no current debt
-Doesn't know how much they can spend



Amira



Ted

Recommendation

I recommend that you reduce your retirement savings for the next two years, decide your timing of when you want to buy the house, and apply for a down payment. If you are thinking about buying soon, you should try to get your pre approval so you have a better idea of what you can afford. As a general rule, to find out how much house you can afford, multiply your annual gross income by a factor of 2.5 - 4. If you make \$250,000 per year, you can afford a house anywhere from \$625,000 to \$1,000,000.



Help monitor

Internal risk management

M&T is going to use AI's ability to spot patterns and predict outcomes for risk management. The technology allows M&T to efficiently assess a large amount of data points, quickly noticing patterns to protect against losses and boost return on investment (ROI). Using AI to analyze vast amounts of complex data sets allows for M&T to develop risk models that are more accurate than risk models based off of standard statistical analysis.

Regulatory compliance

To avoid compliance risk, M&T is going to adopt AI technologies that will create an easy system for compliance processes and improve productivity. M&T will use the data from massive data logs to improve the speed and quality of the decisions being made within the company. This is going to help enhance M&T's readiness to meet regulatory compliance obligations. AI can consolidate the data into understandable insights for a quick overview for management and regulators.



V. PROPOSED STRATEGIC PLAN

Jan Feb March April May June July Aug Sept Oct Nov Dec

Customer service training

Enhance data collection and analytics

Launch advanced AI chatbots

Update the website

Update AI chatbots

Create AI system to examine patterns of customers and make recommendations

Release new appliance and improve it based on customer reviews

Analyze vast amounts of data to develop risk models

Apply new AI technology to improve the speed and quality of decisions being made

C

A

S

H

C. Proposed metrics or key performance indicators to measure plan effectiveness

To ensure the **CASH** objectives are met and to measure their impact, five factors must be analyzed to deem it a successful plan. The main goals for **CASH** is to add hyper personalization and technology to increase customer satisfaction, boost upselling, reduce of customer service wait time, and to measure risk factors.

Activity	Metric	Poor	Good	Excellent
Customer satisfaction	Increase of online ratings about M&T about customer service	>60% Rating on app store	70-80% Rating on app store	90%+ Rating on app store
Reduction of customer service wait time	Reduce the amount of time the customer has to wait to be able to talk to an employee	10+ Minutes of waiting	3-5 Minutes of waiting	<2 Minutes of waiting
Increase in website/app usage	Analyze the amount of new website and or app users	>800 new website users per month and >1500 website visits	1000-1500 new website users per month and 2500-5000 website visits	2000+ new website users per month and 5000+ website visits
Length of time, and amount of clicks on website	Focus on the amount of time a customer has to spend and efficiency of finding what they need	17+ minutes spend and 10+ clicks	8-11 minutes and 5-7 clicks	7 or less minutes and 3 clicks
AI chatbots	Look at how many customers actually utilize the AI chatbots and how they rate them at the end with a small survey	>150 AI chatbot uses per month and >5% took survey	250-400 AI chatbot uses per month and 10% took survey	400+ AI chatbot uses per month and 20%+ took survey
(conversion rate) Increase in sales based off recommendations	Recommendations on investments or products etc. to the customer based off of collected data turned into sales	>5% Turned into sales	5-10% Turned into sales	15%+ Turned into sales
Measuring risk factors	Look at the decrease in customers making poor decisions regarding the risk factor	<20% Decrease	25-30% Decrease	35%+ Decrease

VI. PROPOSED BUDGET

Costs associated with proposed strategies

	ACTIVITY	MONTHLY COST	YEARLY COST
Create better customer service C	Updating AI chatbots	\$600 (for five months)	\$3,000
	Customer service training	\$100/ per person \$3,000 (Every six months)	\$6,000
Apply new security features A	Updating the mobile app	\$4,000	\$48,000
	Updating the website	\$5,500	\$66,000
Simulate a customers thought process S	Implementing new AI tracking and dating collection	\$6,500	\$78,000
Help monitor H	Adding in AI technology to management of customers and business	\$3,500	\$42,000
	OVERALL EXPENSES	\$20,250	\$243,000

$$\text{ROI} = \frac{\text{Gain from Investment} - \text{Cost of Investment}}{\text{Cost of Investment}} \times 100$$



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