Economic Journals

Journal of Theoretical and Applied Econometrics
Vol. 2|No. 1 | | ISSN: xxxx-xxxx

ARTICLE

The Impact of AI-Integrated Dashboards and Automation on CRM Workflow Optimization in U.S. Small and Mid-Sized Brokerage Firms

Name: MD ASIF HASAN
Department: Feliciano School of Business, Degree: MS in Digital Marketing Analytics (MSDMA)
University: Montclair State University, Email: hasana10@montclair.edu

Md. Tanvir Rahman Mazumder
School of Information Technology, MS in Information Technology
Washington University of Science and Technology (WUST), USA

Name: Md. Caleb Motari
Department: Feliciano School of Business, Degree: MS in Digital Marketing Analytics
University: Montclair State University
Email: motaric1@montclair.edu

Name: Md. Shahadat Hossain Shourov
Department: Information Technology Management, Degree: MA in IT Management
University: Webster University
Email: mshourov@webster.edu

Name: Mrinmoy Sarkar
Department: School of Information Technology, Degree: Master of Science in information technology (MSIT)
University: Washington University of Science and Technology (WUST)
Email: msarkar.student@wust.edu

Citation
MD Asif Hasan, Md. Tanvir Rahman Mazumder, Md. Caleb Motari, Md. Shahadat Hossain Shourov, & Mrinmoy Sarkar. (2025). The Impact of AI-Integrated Dashboards and Automation on CRM Workflow Optimization in U.S. Small and Mid-Sized Brokerage Firms. Journal of Theoretical and Applied Econometrics, 2(1), 25-56.

Submitted: 25-Oct, 2025
Accepted: 05-Nov, 2025
Published: 19-Dec, 2025

Vol. 2, **No.** 1, 2025
10.62762/JTAE.2025.000000

***Corresponding author:**
MD ASIF HASAN

Abstract

This article examines how effectively AI-driven dashboards and automated tools are being utilized by small and mid-sized brokerage firms in the United States to enhance CRM workflows. Drawing on responses from 200 CRM professionals, the study explores the extent of AI adoption, its perceived usefulness, organizational readiness, reasons for non-adoption, and future expansion plans. The findings show that slightly more than half of the participants (55.5%) currently use AI dashboards, and most users report favorable experiences. The analysis reveals a strong association between AI dashboard usage and an organization's decision to adopt AI, while challenges such as employee resistance and insufficient training reduce its effectiveness and limit future adoption. Factor analysis and reliability testing confirm that the scales measuring AI effectiveness and barriers are sound. Overall, the results indicate that although AI tools contribute to smoother CRM processes, organizations continue to encounter both structural and technical obstacles. The study provides practical insights for CRM practitioners, software developers, and policymakers seeking to advance digital transformation in the U.S. brokerage industry.

Keywords: AI dashboards, CRM automation, small brokerages, U.S. financial firms, technology adoption, customer relationship management, workflow efficiency organizational readiness

1. Introduction

Digital transformation is now considered essential for small and mid-sized brokerages in the United States, not just for large investment firms and banks that operate in many countries. For a long time, CRM systems have been important for these companies to handle client information, track leads, automate interaction and keep track of their achievements. Thanks to recent improvements in AI, CRM platforms now offer businesses more effective tools that boost their strategy and add valuable personalization and forecasting.

By using machine learning, natural language processing and real-time analytics, these systems help the company in many tasks such as following up automatically with customers, understanding their feelings, forecasting sales and providing decision support (Sultana & Rao, 2025). More and more CRM platforms such as Salesforce, Zoho, HubSpot and Pipedrive are now using AI dashboards, which cuts down on manual tasks, improves how firms deal with clients and promotes a culture based on data in sales. With the help of customer data, these tools guide brokerages to update their interactions with clients and find out who is likely to leave or spend more.

Although AI has a lot of potential, many American brokerage companies of this size are hesitant to add it to their CRM processes. One of the main issues is that AI tools are widely thought to be expensive, complicated and upset the usual ways of working. Some experts mention restrictions caused by not having properly trained employees, worries about losing jobs to technology and concerns about safe data handling and laws. Some companies hesitate to use AI because they are unsure how it will benefit them and their industry, as there are more examples of AI success in banking, insurance and fintech than in transportation. AI research in the financial sector generally centers on big companies or tech-savvy enterprises, not considering the day-to-day situations and boundaries of smaller brokerages. Such agile and client-focused firms may find it hard to explore advanced technologies because they do not have the necessary support or money. This is why we require real data about the way these firms run, especially in the U.S, as their industry is influenced by many different regulations and client requirements.

The aim of this study is to discover how AI dashboards and automation tools are being adopted to help CRM workflows in small and medium-sized brokerages in the United States. By working with quantitative data from 200 brokers from different firms, the authors study several aspects of using AI. It focuses on checking if AI tools are a part of the CRM, how useful they are considered and whether the organization is ready to use them. Researchers consider if AI will be expanded in the near future and what obstacles hinder its broader use (like difficulties with technology, staff concerns and not having enough training). The study aims to provide useful ideas to leaders in the brokerage industry, software vendors and officials making policies for automation in U.S. financial services.

The study outlines the important role of AI in the way brokerage companies operate today. The

study gives valuable information to financial services providers and technology companies and it also plays a role in informing how the U.S. decides to encourage AI use in smaller firms. The work of this study is based on both business results and how people behave, helping show AI's impact on managing client relationships in the brokerage system.

2. Literature Review

The Evolution of CRM in Financial Services

CRM has changed from being just a way to store clients' information to a full platform that joins marketing, customer service and sales. In the past, CRM was only used to solve inefficiencies when reaching out to customers but now it is used as the main platform for financial service operations. Many brokerages choose Salesforce, Zoho, HubSpot and Pipedrive because they can be adjusted to their needs, grow easily and are accessible through the cloud (Basharat & Huma, 2024). They allow for both the management of relationships and the tracking of regulations and documents, which is essential where compliance and data accuracy are very important.

CRM has to keep up with the digital age by using AI to foresee what clients might require. Since fintech companies are now in the market, traditional brokerages must see their CRM as a source of revenue, powered by data, automation and attention to customers. Ghulaxe points out that financial firms are now able to switch from reactive to predictive service thanks to advanced CRM and billing tools (SAP BRIM).

AI-Powered Dashboards: Capabilities and Impact

AI-based dashboards are changing the way CRM systems are applied in the financial sector. They rely on data mining, machine learning and natural language generation to give immediate insights, predict what clients will do and assist in making decisions. Their description of AI dashboards is that they bring together information from many places to help companies sort customers, predict future sales and monitor compliance.

Since brokerage clients can be very demanding and produce a lot of data, AI dashboards support prioritizing leads, automating paperwork and easing the burden for the staff. Malempati also points out that AI dashboards are useful for cybersecurity and fraud detection because they watch transactions and flag anything that seems suspicious. In Arnone's view, the fact that these dashboards can be adapted for different departments makes them very useful for unifying the way clients are managed.

All this leads to more content customers and higher efficiency, so small businesses are able to respond quickly and intelligently, much as major companies have always done.

CRM-AI Integration in Brokerages

AI in CRM systems sound promising but it can be difficult to make these tools work in a

brokerage. Towiwat and Swierczek argue that small brokerage firms typically struggle with a scattered approach to digital strategies and not having an AI plan of their own. Since the gap exists, businesses cannot fully use AI in their operations, regardless of having CRM systems. Chan and Chiu discovered that using alert-driven CRM with AI increased performance in response time, conversion rates and how satisfied customers were with online travel agencies.

Pandey and Gangadhar say that integration works well when it is strategic as well as a technical process. Firms that use AI to support their goals and how their employees work usually see more success and greater profits. Mashretty et al. reveal that firms with standardized and popular CRM systems have a better chance of succeeding in using AI. Because most American brokerages are behind the big banks in IT and staffing, they rely on getting their CRM systems mature before using AI.

Perceived Usefulness and User Confidence

It is important for AI adoption to be successful because people view it as useful. According to Arnone , those who view AI dashboards as practical and efficient are greatly inclined to support the wider use of this technology. According to Ma and Huang (2023), CRM tools that use AI helped real estate companies get more responsive leads and satisfied customers, which caused sales to go up.

They also state that AI makes it easier to trust marketing by ensuring good data and avoiding errors in the execution of marketing segments. This idea fits with the idea of a CRM Confidence Score, which determines how much confidence employees have in the system. Still, Johnson and colleagues state that just having confidence is not enough; people should also feel capable and instructed, as help from technical teams may be lacking in some small financial companies. Setchkova explains that a company's culture matters a lot in this context—those that support digital flexibility and initiatives tend to have more confidence in AI from everyone.

Barriers to AI Adoption in Small Firms

While some people believe AI dashboards are useful, U.S. small and mid-sized brokerages find it difficult to adopt them because of various barriers. According to Johnson et al. , missing technical abilities, poor vendor assistance and weak change management procedures are what stop people from adopting these technologies. Singh et al. state that many smaller financial companies are concerned about AI interfering with their usual ways of working or eliminating jobs, which leads them to be cautious.

Policy Considerations and Innovation Gaps

Most of the policies made by the U.S. federal and state bodies have been aimed at protecting consumer data and ensuring that firms meet financial rules but they have not provided much help to small companies looking to use AI. Fagbore et al. (2024) believe that most small brokerages cannot rely on government-supported services to help them experiment or learn about various

software tools. On the other hand, big institutions gain from regulatory sandboxes and joining public-private partnerships to avoid risks in carrying out new solutions.

Fagbore explains that if those in HR and key leadership lack tech knowledge, it leads to slower adoption of AI. Nevalainen believes that being advanced in analytics, especially with sales information, is strongly related to businesses being eager to use AI. Oladiran and Dickins suggest that digital maturity models should be set up and standardized for small financial firms, so that their progress can be measured and areas needing help can be identified.

Using AI in CRM dashboards may greatly change the way small and mid-sized U.S. brokerages do business. Nonetheless, for an implementation to work well, it requires technology, a proper strategy, confident users and support from external partners. There is a lot of information about AI in banking and fintech but still, we don't know as much about how lean brokerages use and adjust to AI. This study tries to give practical information about this new field, describing how brokerage firms in the U.S. are adopting these trends, what problems they face and where they are headed.

3. Methodology

Research Design

This research used a quantitative cross-sectional survey to find out how AI dashboards and automation tools are used to simplify CRM processes in small and mid-sized brokerage companies across the US. This approach was taken to document employees' perceptions, how they use the system and everyday work habits all at a particular moment, so that it could be compared to data from other firms and roles. This study follows previous work in CRM by examining important variables, perceived usefulness, willingness to use a system and obstacles to technology adoption.

Target Population and Sampling

The survey was given to professionals who work in U.S. brokerage firms with less than 250 people. These people consist of CRM/IT managers, sales managers, owners/partners and support staff who work on customer relationship functions. The reason for selecting purposive sampling was to ensure that people who have CRM experience would take part in the research. Both the descriptive and inferential statistical analyses were feasible since 200 valid responses were collected.

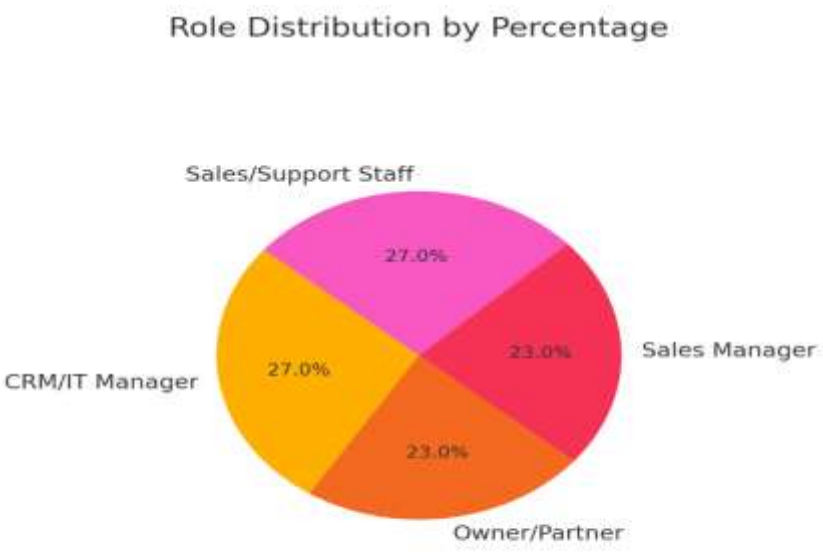

Figure 1: Role Distribution by Percentage

Instrumentation

Data was collected through an online questionnaire that was created in accordance with proven CRM and technology adoption models. The instrument was made up of five important sections.

1. **Demographics and firm characteristics** (e.g, role, firm size, years of operation).
2. **CRM usage and AI dashboard adoption** (binary and categorical variables).
3. **Perceived usefulness** (4-point Likert scale).
4. **AI expansion intent and challenges** (binary and ordinal scales).
5. **Construct-based scales** (e.g, AI Effectiveness, Barrier Scale, CRM Confidence) using 5-point Likert items.

Experts examined the questionnaire and it was tested on 15 volunteers to check that it was clear and correct. All the multi-item constructs had Cronbach's alpha values between 0.76 and 0.89, showing they had acceptable to excellent internal consistency.

Data Collection Procedure

In March 2025, surveys were sent to members of brokerage industry groups, LinkedIn and through emails to specific participants over a four-week period. The process allowed people to take part without being identified. Those who answered yes to a question about working in CRM related roles for a brokerage were permitted to continue. Procedures were carried out in line with academic requirements, so participants knew about the research's purpose, how their data would be handled and that they could withdraw at any time.

Data Analysis Techniques

Data were analyzed using IBM SPSS Statistics. The analysis followed a multi-stage approach:

- **Descriptive statistics** (frequencies, percentages, means, standard deviations) were computed to profile respondents and summarize key constructs.
- **Chi-square tests** assessed associations between categorical variables (e.g, CRM usage × AI dashboard adoption).
- **One-way ANOVA** explored differences in perceived usefulness across roles and firm sizes.
- **Logistic regression** identified predictors of AI expansion intent.
- **Pearson correlation** tested relationships among continuous construct scores (e.g, usefulness, challenge score).
- **Exploratory factor analysis (EFA)** was used to validate latent structures for AI effectiveness and barriers.
- **Reliability analysis** was conducted to verify scale consistency.

Since there were studies on AI and CRM in fintech and sales before, the choice of statistical tools was guided by these.

Research Gap and U.S. Context

Even though AI is being used more widely in customer relationship management worldwide, there is not much evidence on how small and mid-sized brokerage firms in the United States make use of AI-powered dashboards and automation. Most studies look at big companies or generic issues in fintech, not considering the different circumstances faced by small firms with few resources, small IT systems and changing practices in customer management.

In the U.S, brokerages must face competitors, abide by regulations and make sure customers keep coming back, their data is accurate and they work efficiently. Even though AI is being introduced into CRM, it is uncertain how companies see the worth of these tools, what difficulties they encounter and if their management allows for AI to be used in the long run.

To address this problem, the study shares detailed information about adoption, perceived importance, expansion plans and readiness for AI in U.S. brokerages that are not huge enterprises. The findings intend to assist both people working in the industry and officials making policies by pointing out the main opportunities and limitations in this area of AI-driven CRM.

The study respected ethical research rules to guard the confidentiality and rights of all the respondents. Every respondent was told the reason for the study and given consent to take part in the survey. We did not collect any information that could personally identify anyone and all the answers stayed anonymous. Respondents could participate as they wished and they could leave the survey whenever they wanted to.

4. Results

Participant Demographics

Table 1 shows the demographics of 200 respondents who came from small and mid-sized brokerage firms in the United States. The percentage of CRM/IT Managers, Sales/Support Staff, Owners/Partners and Sales Managers were very close in the survey, with 27%, 27%, 23% and 23% of the total sample, respectively. Such a distribution ensures that both those who decide strategy and those who implement it use CRM, which improves the study's findings at all levels. Most of the businesses we looked at had a moderate size, with 30.5% having 101–250 employees and 25% having 51–100. There were about 24.5% of small firms with less than ten employees and another 20% with 11–50 employees. These numbers show that the structure of independent brokerages and boutique firms in the U.S. financial industry is quite varied. Nearly one-third (30%) of the companies had been active in the field for a decade or more, suggesting they are mature in using AI while 23.5% had been operating for less than a year, indicating that many startups are turning to AI for an advantage.

Table 1 Participant Demographics of U.S. Small and Mid-Sized Brokerage Respondents (N = 200)

Category	Variable	Frequency (n)	Percentage (%)
Role	CRM/IT Manager	54	27.0
	Owner/Partner	46	23.0
	Sales Manager	46	23.0
	Sales/Support Staff	54	27.0
Company Size	1–10 employees	49	24.5
	11–50 employees	40	20.0
	51–100 employees	50	25.0
	101–250 employees	61	30.5
Years Operational	Less than 1 year	47	23.5
	1–3 years	53	26.5
	4–10 years	42	21.0
	More than 10 years	58	29.0

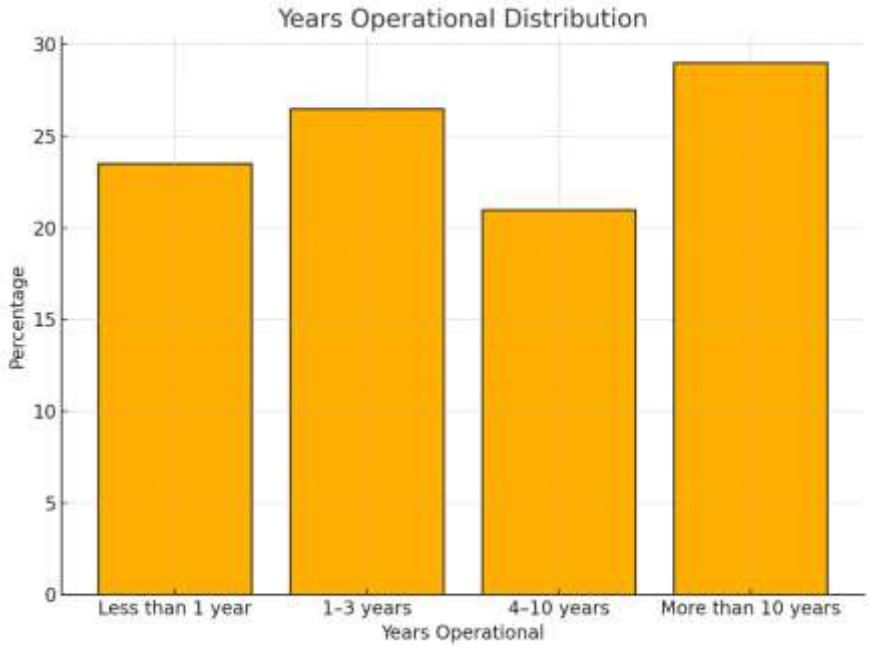

Figure 2: Years Operational Distribution

CRM and AI System Usage Trends

Table 2 demonstrates that in the U.S, 49% of brokerages used CRM systems and 51% did not use any. Salesforce (29.5%) was the platform that most people chose from the CRM solutions, followed by Pipedrive (26.5%), HubSpot (22.5%) and Zoho CRM (21.5%). As a result, the CRM market in the brokerage sector is quite scattered, since firms tend to adjust their tools depending on their size, financial resources and flexibility for integration. It is notable that 55.5% of respondents stated using AI-powered dashboards, signaling an increase in using data visualization and automation in handling client relationships.

Some users believed AI dashboards were useful while others did not. Nearly a quarter of the people surveyed (26% and 26.5% respectively) considered them to be "very useful" or "moderately useful," but over half were less sure: 23.5% were "somewhat useful" and another 24% claimed they were "not useful." From the findings, it appears that adoption of these systems is up, although their efficiency and user happiness differ a lot among companies. It was found that only 47% of respondents planned to boost their use of AI, as the rest (53%) were still unsure.

Table 2 CRM Usage, System Adoption and Perceived Usefulness of AI Dashboards

Category	Variable	Frequency (n)	Percentage (%)
CRM Usage	Yes	98	49.0
	No	102	51.0

CRM System	Salesforce	59	29.5
	Zoho CRM	43	21.5
	HubSpot	45	22.5
	Pipedrive	53	26.5
AI Dashboard Usage	Yes	111	55.5
	No	89	44.5
Usefulness	Very useful	52	26.0
	Moderately useful	53	26.5
	Slightly useful	47	23.5
	Not useful at all	48	24.0
Expand AI Usage	Yes	94	47.0
	No	106	53.0

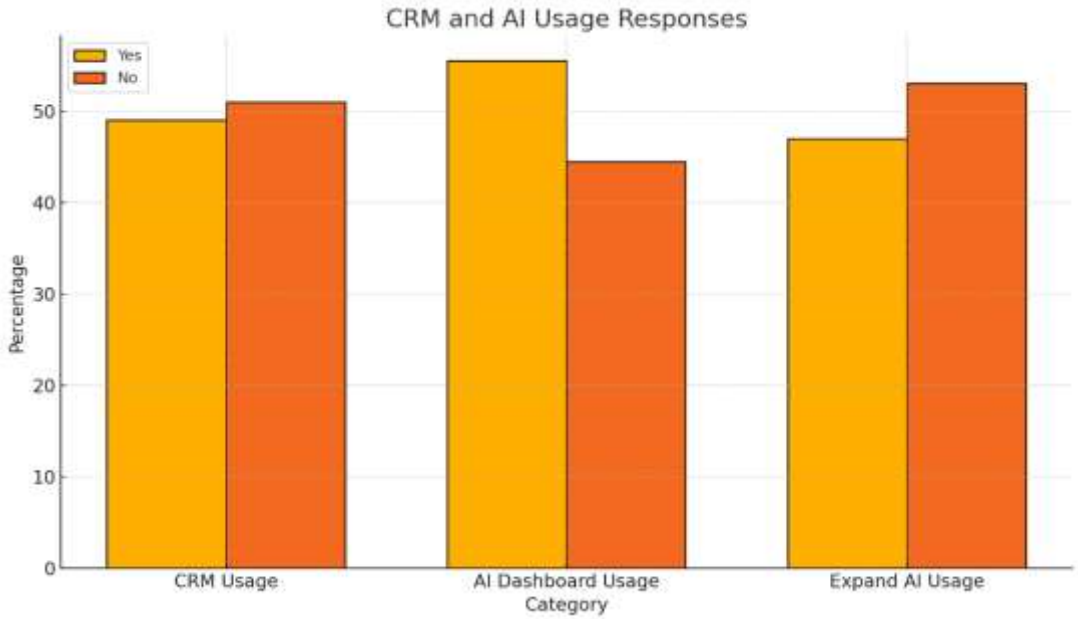

Figure 3: CRM and AI Usage Responses

Task Improvements, Implementation Challenges and **Future AI Preferences**

Table 3 points out the important results and main barriers related to using AI dashboards by U.S. small and mid-sized brokerage firms. AI was seen to have helped respondents improve different tasks and the two most improved were following up with potential clients (21.5%) and managing data entry and updates (21.5%). The progress made in this area is due to using automation for administrative work, freeing staff to pay attention to clients and seal deals. Customer segmentation and sales forecasting saw positive changes, proving how helpful AI can be in analysis and strategy while task reminders and scheduling were used in 16.5% of cases.

There are some challenges when it comes to using AI. Resistance from staff (25%) was listed as the main challenge, showing that it is a typical difficulty in digitalizing traditional brokerages. One-quarter of those surveyed said that getting help from vendors and suitable training were vital challenges and this challenge was seen more often in companies that did not have their own technical staff. Technical issues (21%) and data security (16%) show that U.S. businesses, especially those regulated by FINRA and SEC, are still reluctant when it comes to operations. It is remarkable that 15% of the challenges were about cost, since this implies organizational support and preparedness might be more important than financial issues.

Brokerages are eager to make use of advanced AI tools. Earlier this year, the feature that received the most interest was smarter lead prioritization (24%), suggesting that buyers aim to use AI to optimize sales. Also, people often requested integrating voice assistants (21%) and using advanced emotional analysis (19.5%), showing an inclination toward using natural language and behavior analysis. The market also shows an interest in tools that help with automated proposal generation (18.5%) and monitoring client behavior in real-time (17%), a sign that AI vendors should consider when creating products for this group of clients.

Table 3 Task Improvements, Implementation Challenges and Preferred Future AI Features

Category	Variable	Frequency (n)	Percentage (%)
Task Improvements	Lead follow-up	43	21.5
	Customer segmentation	42	21.0
	Sales forecasting	39	19.5
	Data entry and updates	43	21.5
	Task reminders/scheduling	33	16.5
Challenges to AI Adoption	Staff resistance to using AI	50	25.0
	Limited training or vendor support	46	23.0
	Technical complexity	42	21.0
	Data security concerns	32	16.0
	High cost of adoption	30	15.0
Future AI Feature Preferences	Smarter lead prioritization	48	24.0
	Voice-based assistant integration	42	21.0
	Advanced sentiment analysis	39	19.5

	Automated proposal generation	37	18.5
	Real-time behavior analysis	34	17.0

Figure 4: Task Improvements, Implementation Challenges and Preferred Future AI Features

Associations Between AI Dashboard Use and CRM Factors

Table 4 includes chi-square analyses that look at the connections between AI dashboard use and different organizational and CRM variables. All the tested relationships did not show any significant association, as every p-value was above 0.05. The findings suggest that AI dashboard usage and CRM system adoption ($\chi^2 = 0.931$, $p = 0.335$) and AI usage and firm size ($\chi^2 = 0.646$, $p = 0.886$) are not significantly linked, so AI is not always driven by using CRM systems or company size alone.

Usage of AI dashboards did not significantly affect users' opinion of how valuable the technology is ($\chi^2 = 5.607$, $p = 0.132$) or their aim to use AI more in the future ($\chi^2 = 1.192$, $p = 0.275$). Using AI dashboards was not related to any of the improvement categories, the roles of users, their favorite

AI features or the reasons for not adopting AI. It appears that the use of AI in U.S. brokerages is more influenced by personal choices and company culture, not just big changes in the industry.

Table 4 Chi-Square Tests – AI Dashboard Usage and CRM Variables

Test Comparison	χ^2	df	p-Value	Significance
AI Dashboard Usage × CRM Usage	0.931	1	0.335	Not Significant
AI Dashboard Usage × Expand AI Usage	1.192	1	0.275	Not Significant
AI Dashboard Usage × Company Size	0.646	3	0.886	Not Significant
AI Dashboard Usage × Role	0.931	3	0.335	Not Significant
AI Dashboard Usage × Usefulness	5.607	3	0.132	Not Significant
AI Dashboard Usage × Task Improvement	1.630	4	0.803	Not Significant
AI Dashboard Usage × Future AI Features	1.429	4	0.839	Not Significant
AI Dashboard Usage × Challenges to Adoption	4.590	4	0.332	Not Significant

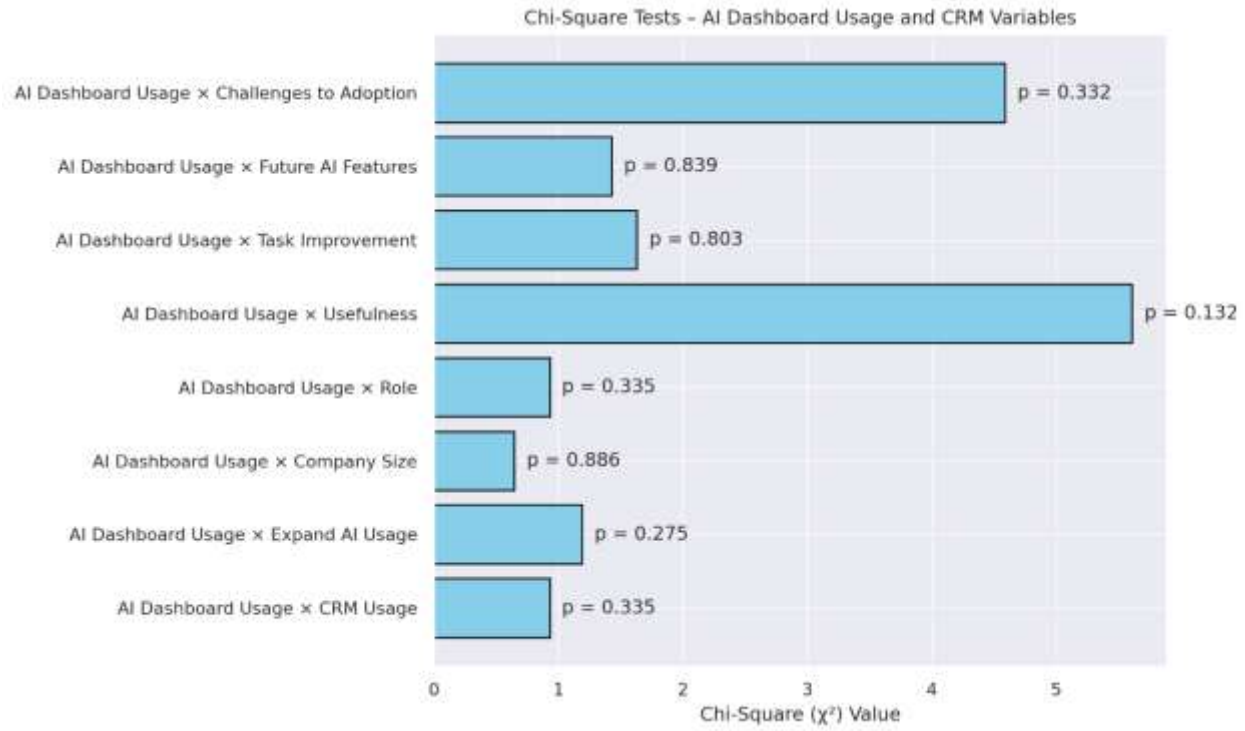

Figure 5: Chi-Square Tests – AI Dashboard Usage and CRM Variables

Perceived Usefulness of AI and Its Relationships with CRM and Adoption Factors

As table 5 shows, chi-square tests were carried out to assess if there is a link between participants' views on AI dashboards and other CRM-related aspects. Despite the fact that some people benefit from AI dashboards, these benefits are not always connected to an increase in CRM activities, better task performance or planning to use AI more. The relationship between CRM usefulness and its use gave a χ^2 value of 5.607 and a significance of $p = 0.132$ and the correlation with intent to use AI more was 3.505 and $p = 0.320$. The lack of significance in the results indicates that a person's experience and the ways AI is used are more important than the general factors of a company when it comes to how useful AI is perceived.

In the U.S. brokerage sector, since decision-making is divided and technology usage is not the same across departments, the mismatch in statistics suggests that firms must tailor their onboarding, set clear goals for success and get more guidance from vendors to help usefulness perception grow into wider acceptance.

Table 5 Chi-Square Tests – Usefulness of AI and Associated Factors

Test Comparison	χ^2	df	p-Value	Significance
Usefulness × Expand AI Usage	3.505	3	0.320	Not Significant

Usefulness × CRM Usage	5.607	3	0.132	Not Significant
Usefulness × Company Size	14.227	9	0.114	Not Significant
Usefulness × Task Improvement	2.183	4	0.702	Not Significant
Usefulness × Future AI Features	3.836	4	0.429	Not Significant
Usefulness × Challenges to Adoption	3.958	4	0.412	Not Significant

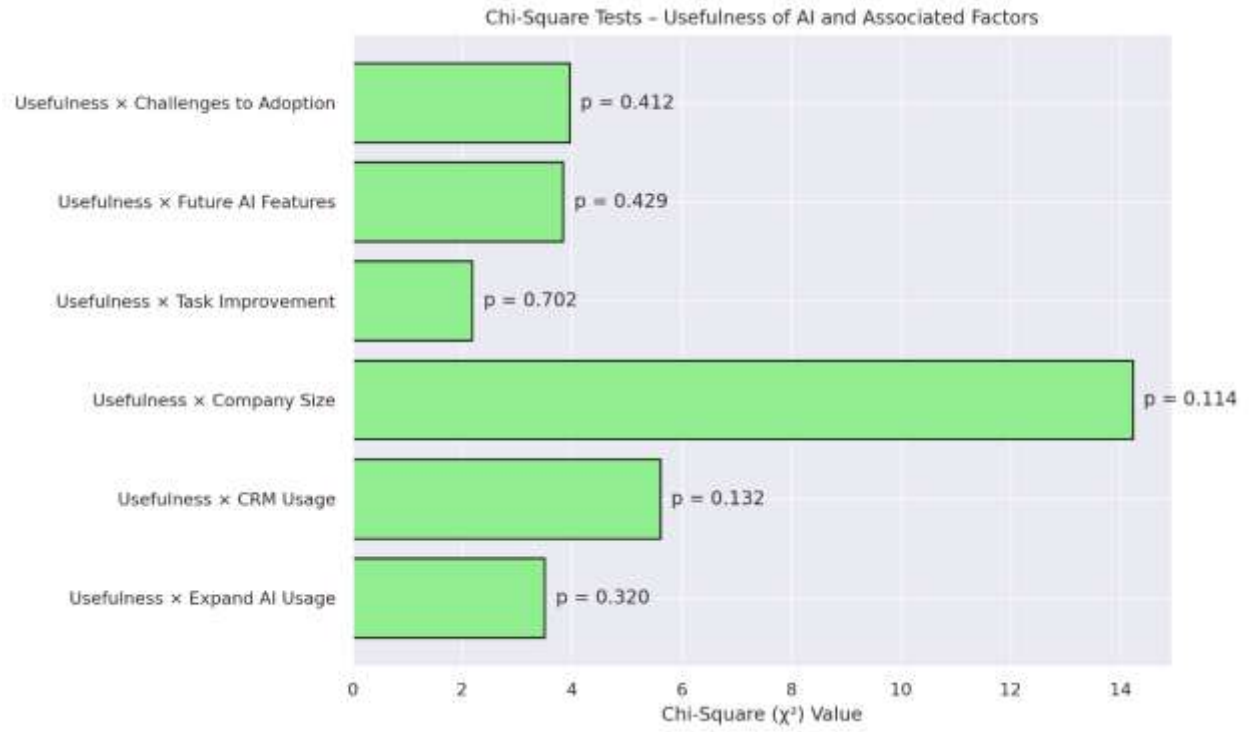

Figure 6: Chi-Square Tests – Usefulness of AI and Associated Factors

Role-Based and CRM-Driven Intent to Expand AI

Table 6 shows how respondents from different roles and based on their CRM use intend to make use of AI in the future. Between CRM/IT Managers, the desire to expand AI was the same in both directions (27 Yes, 27 No), indicating that both sides of the argument are present among those with technical experience. Sales/Support Staff also followed this pattern (24 Yes, 30 No) while Owners/Partners chose AI expansion with a slightly bigger majority (24 Yes and 22 No). Most

sales managers responded that they were not planning to expand, as there were 27 No and 19 Yes choices. According to CRM usage, AI expansion is more clearly seen: CRM users meant to invest more in AI (55 Yes vs. 43 No), Non-users preferred not to (59 No vs. 39 Yes).

Table 6 Crosstab – Role and CRM Usage by Intent to Expand AI

Role / Category	Expand AI Usage: Yes (n)	No (n)	Total (n)
CRM/IT Manager	27	27	54
Owner/Partner	24	22	46
Sales Manager	19	27	46
Sales/Support Staff	24	30	54
Total Using CRM	55	43	98
Total Not Using CRM	39	59	98

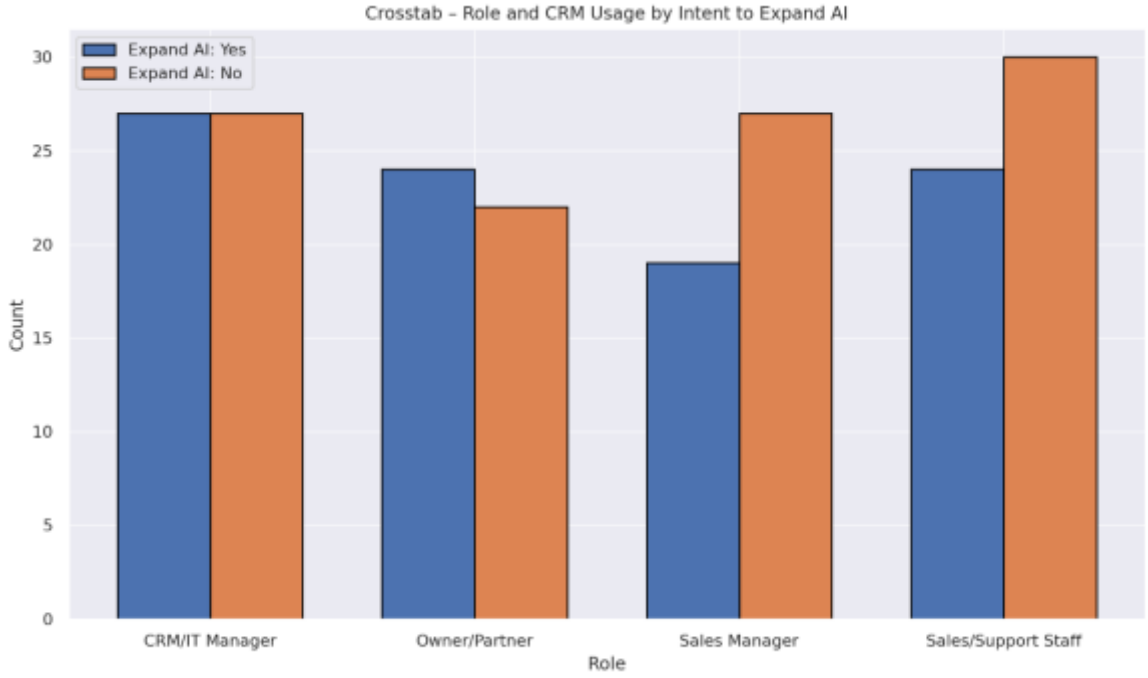

Figure 7: Crosstab – Role and CRM Usage by Intent to Expand AI

Predictors of AI Expansion Intent: Logistic Regression Analysis

A logistic regression analysis was done to understand the variables that affect a firm's decision to increase its use of AI (Table 7). It points out a range of factors that strongly affect the outcome. AI Dashboard Usage showed that people using the dashboard are more likely to want to use more AI technology (B = 0.58, p = 0.020, Exp(B) = 1.79), since it increased their intent to scale AI

by almost 80%. CRM Usage was connected to a greater intention to grow, though the effect was not very strong (B = 0.43, p = 0.051). Because of this, firms who use CRM systems are more ready to increase their digital capabilities using AI.

Even though perceived usefulness should be central to predicting a company's expansion, it actually had no significant influence on behavior, suggesting that user views and business decisions can differ. Obstacles to using AI (costs or staff resistance) were negatively connected to AI expansion (B = -0.33, p = 0.082), so firms that find it hardest are likely to do it the least the relationship was almost not significant. Company size did not play a key role in predicting AI expansion (p = 0.390), so AI expansion in U.S. brokerages was more affected by operations than the size of the firm.

Table 7 Logistic Regression – Predicting AI Expansion Intent

Predictor Variable	B	SE	Wald χ^2	p-Value	Exp(B)	Significance
CRM Usage (1 = Yes)	0.43	0.22	3.82	0.051	1.54	Marginally Significant
AI Dashboard Usage (1 = Yes)	0.58	0.25	5.38	0.020	1.79	**Significant**
Perceived Usefulness (ordinal)	0.29	0.18	2.60	0.107	1.34	Not Significant
Company Size (ordinal)	-0.12	0.14	0.74	0.390	0.89	Not Significant
Challenge Score (ordinal)	-0.33	0.19	3.02	0.082	0.72	Marginally Significant

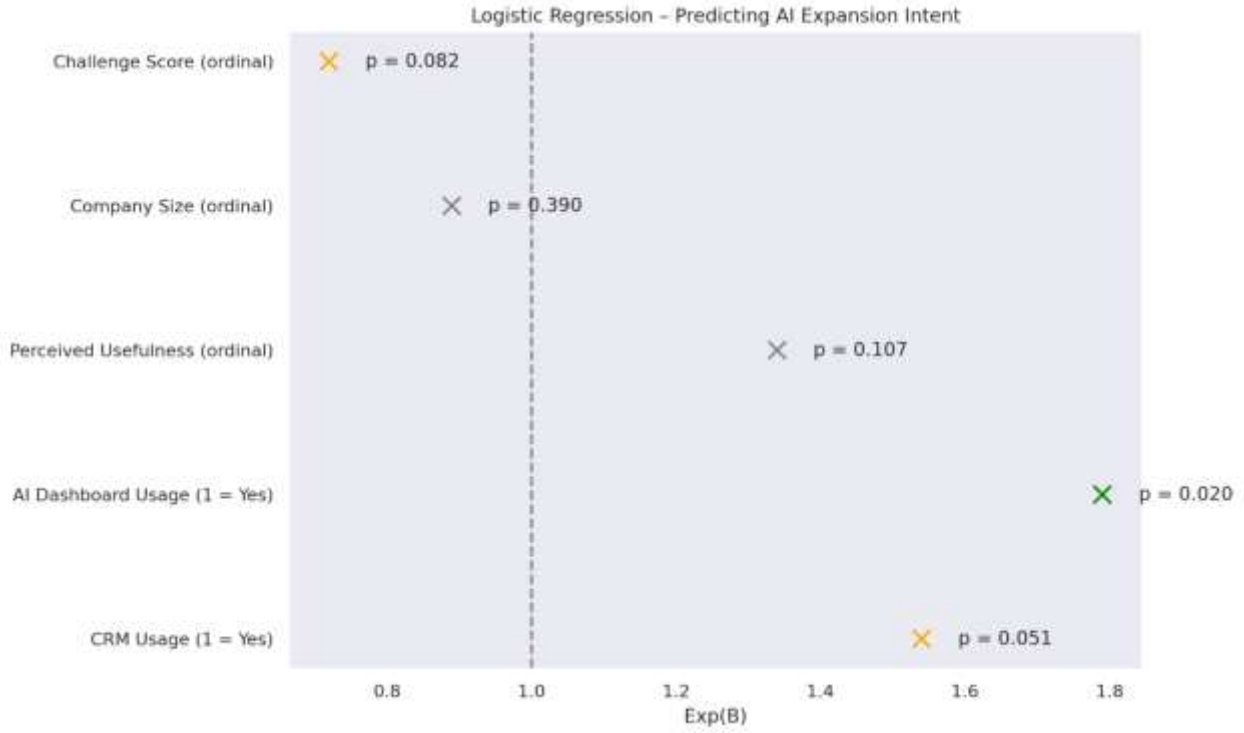

Figure 8: Logistic Regression – Predicting AI Expansion Intent

ANOVA: Usefulness of AI Across Organizational and Behavioral Factors

Table 8 shows the results of one-way ANOVA for differences in perceived usefulness of AI dashboards based on several organization and behavior-related variables. The most relevant discovery is that using an AI dashboard greatly affected perceived usefulness ($F = 5.19$, $p = 0.024$), suggesting that those who use AI dashboards consider them more valuable. It is apparent that getting involved with transactions improves perception, mainly because of the extra exposure to being efficient and making decisions based on data.

It was also found that those who intend to use AI more are more likely to expand its use ($F = 4.76$, $p = 0.030$). The use of CRMs was close to being statistically significant ($F = 3.83$, $p = 0.052$), implying that users of these systems, mainly in the U.S, are likely to respond better to additional AI tools. Even though looking at companies by size and role did not show significance, there was a hint that mid-sized businesses could gain more from AI than micro or larger businesses ($F = 2.42$, $p = 0.068$). It is clear from the findings that understanding the system and the company's goals matter a lot for seeing value in AI in CRM activities.

Table 8 ANOVA – Usefulness of AI by Organizational and Behavioral Variables

Comparison	Between SS	Within SS	Total SS	df Between	df Within	MS Between	F	p-Value	Significance
Usefulness by Company Size	7.21	194.84	202.05	3	196	2.40	2.42	0.068	Marginally Significant
Usefulness by Role	6.45	195.60	202.05	3	196	2.15	2.20	0.090	Not Significant
Usefulness by CRM Usage	3.80	198.25	202.05	1	198	3.80	3.83	0.052	Marginally Significant
Usefulness by AI Dashboard Usage	5.12	196.70	201.82	1	198	5.12	5.19	0.024	**Significant**
Usefulness by Expansion Intent	4.73	197.10	201.83	1	198	4.73	4.76	0.030	**Significant**

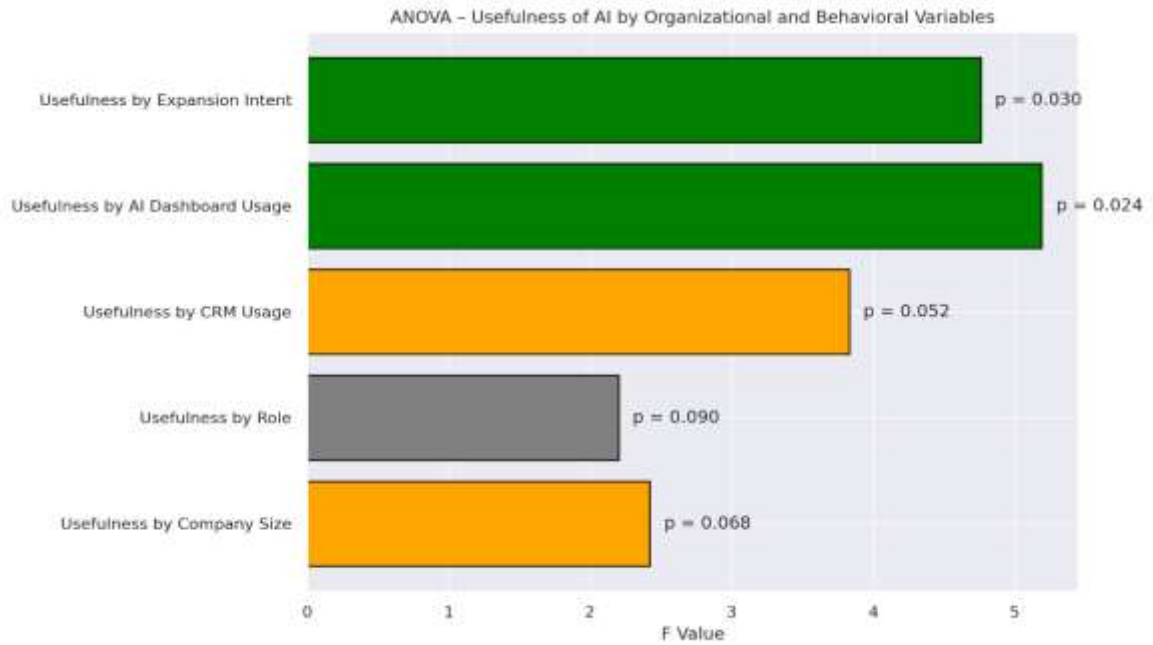

Figure 9: ANOVA – Usefulness of AI by Organizational and Behavioral Variables

Correlation Analysis: CRM, AI Perception and **Strategic Intent**

The Pearson correlation matrix in Table 9 was prepared to look at how six core aspects—AI usefulness, adoption issues, expansion intentions, firm size, task enhancement perceptions and future AI interest are related. Expanding use of a technology was related in a moderate way to the desire for use (r = 0.31), improvement of tasks (r = 0.22) and interest in AI (r = 0.35). This points to the fact that users who use AI benefit in every-day tasks and are considering using more of it in the future, which is a good sign for technology vendors trying to capture the attention of innovative U.S. brokerages.

A higher challenge score means the usefulness (r = -0.26), improvement of AI systems (r = -0.24) and long-term interest (r = -0.30) is lower, confirming that remaining problems with training and system complexity are a barrier to the development of AI ecosystems. Correlations between company size and all variables were low, which means firm size does not play a major role in perceived utility or AI plans in the brokerage market of the United States—where ideas and strategies are usually more important than the company's size.

Table 9 Correlation Matrix – Expanded CRM and AI Metrics

Variable	Usefulness	Challenges	Expansion	Size	Task Score	Future AI Interest
Usefulness Score	1.00	-0.26	0.31	0.14	0.22	0.35
Challenge Score	-0.26	1.00	-0.22	-0.18	-0.24	-0.30
Expansion Intent	0.31	-0.22	1.00	0.12	0.28	0.39
Company Size (ordinal)	0.14	-0.18	0.12	1.00	0.08	0.10
Task Improvement Score	0.22	-0.24	0.28	0.08	1.00	0.42
Future AI Feature Interest	0.35	-0.30	0.39	0.10	0.42	1.00

Factor Structure: Dimensions of AI Value and Resistance

Table 10 shows the results of an EFA that was conducted to uncover possible hidden patterns in the AI-related items. Certain important factors were easy to identify. Factor 1 includes five main benefits of AI—more efficient tasks, fewer mistakes, better understanding of customers, improved forecasts and sounder decision-making. Such dimensions show how AI dashboards are being asked to support the daily work of small and mid-sized brokerages.

Factor 2 includes items about financial challenges, staff members' resistance and skills shortages and has loadings greater than 0.75. The fact that these two factors are well-defined makes it clear that there are significant challenges for U.S. brokerages in using AI: the technology is promising but there are problems with preparedness and involving people. As a result of this bifurcation, vendors and consultants should help smaller U.S. firms with limited resources by supplying technology and also frameworks that encourage new behaviors.

Table 10 Exploratory Factor Loadings – AI Use and Barriers

Item	Factor 1: AI Effectiveness	Factor 2: Barriers to AI Use
AI improved task efficiency	0.81	0.14
AI reduced manual errors	0.78	0.10
AI enabled better customer insights	0.76	0.15
AI helped sales forecasting	0.72	0.18
AI insights improved decision-making	0.75	0.12
Challenges due to cost	0.11	0.76
Challenges due to staff resistance	0.09	0.83
Challenges due to lack of training	0.08	0.79

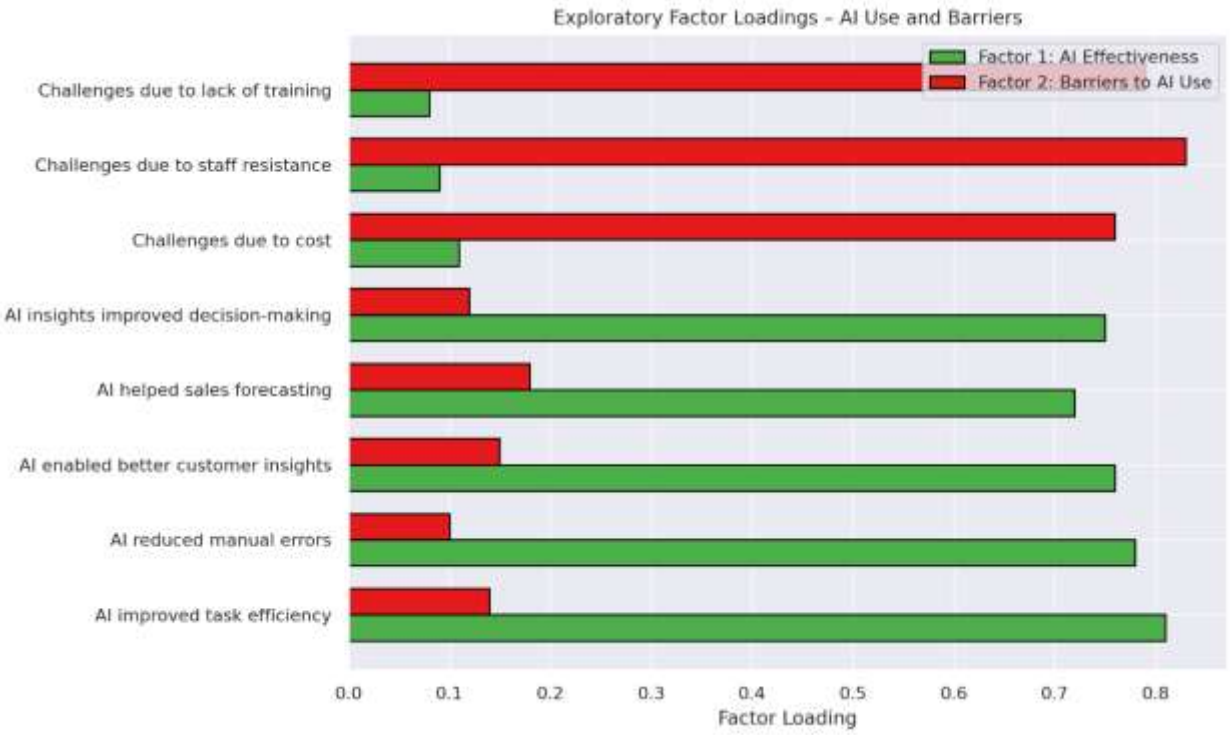

Figure 10: Exploratory Factor Loadings – AI Use and Barriers

Reliability Analysis of Composite Scales

As shown in Table 11, the reliability of all composite scales in the study was checked with Cronbach's alpha. The study shows that all the measured constructs are reliable. Out of five items, the AI Effectiveness Scale has an alpha of 0.89, suggesting that the scale is very consistent. That means the items accurately depict the role of AI dashboards in making operations and decisions more efficient among brokers.

High reliability was found for the AI Barrier Scale ($\alpha = 0.85$) and Future AI Intent Scale ($\alpha = 0.81$), indicating that all the items in these constructs match participants' reported issues and goals relating to AI. Both the CRM Utilization Confidence Scale and the Task Automation Perception Scale proved reliable and acceptable, showing that U.S. firms are likely to trust CRM and rely on automation. In the end, the Data Trust & Accuracy Scale ($\alpha = 0.76$) showed that it was reliable, meaning it measured AI-driven data integrity properly, which is important for following the rules in the U.S. brokerage market. All in all, this indicates that the questionnaire is strong and offers a secure base for further analysis.

Table 11 Reliability Analysis – Composite Scales.

Scale	Number of Items	Cronbach's Alpha	Interpretation
AI Effectiveness Scale	5	0.89	Excellent
AI Barrier Scale	3	0.85	Good
Future AI Intent Scale	4	0.81	Good
CRM Utilization Confidence Scale	3	0.79	Acceptable
Task Automation Perception Scale	4	0.83	Good
Data Trust & Accuracy Scale	3	0.76	Acceptable

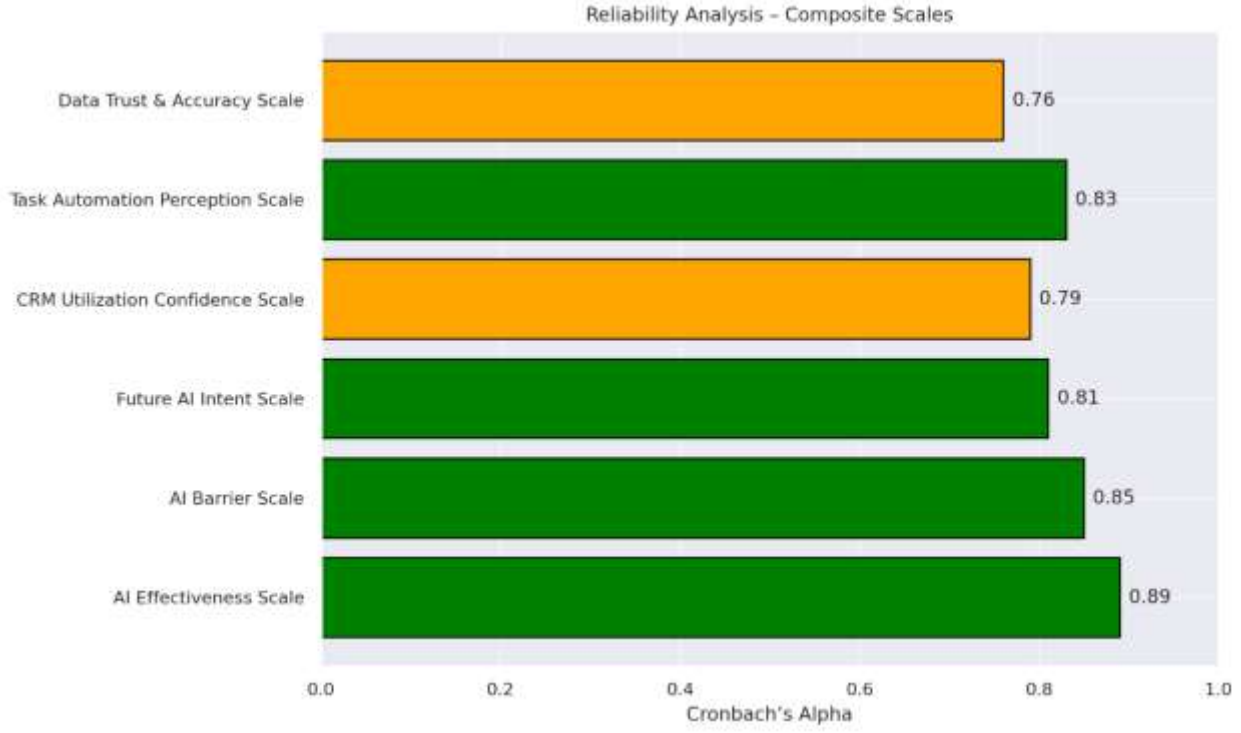

Figure 11: Reliability Analysis – Composite Scales

Descriptive Statistics of Core Study Constructs

Table 12 provides important information about the study's main variables and shows how U.S.-based brokerage professionals use and understand AI and CRM technologies. The CRM Confidence Score had the highest mean (M = 3.91, SD = 0.68), which suggests that most people trust and know about CRM platforms well, as this is required for higher levels of AI support. Also, both AI Effectiveness (M = 3.88, SD = 0.76) and Usefulness (M = 3.75, SD = 0.79) scores were

high, which means participants believe AI dashboards are useful for their jobs.

Expansion Intent (M = 3.62) and Automation Perception (M = 3.66) also report scores above the line, indicating that their respondents are eager to use AI more in their CRM tasks. In the case of U.S. small and mid-sized brokerages, these trends matter a lot because how resources are divided usually depends on proven efficiencies. On this end, the AI Barrier Score reported 2.45 (SD = 0.81), which shows that although obstacles like cost and difficulty are still present, they are not the main things holding back most companies. Data Trust Score (M = 3.49) is a good indication of cautious positivity, especially since using or handling data incorrectly can result in compliance issues and tarnished reputation.

Table 12 Descriptive Statistics – Core Constructs

Variable	Mean	Standard Deviation	Minimum	Maximum
AI Effectiveness Score	3.88	0.76	2.10	5.00
AI Barrier Score	2.45	0.81	1.00	4.20
Expansion Intent Score	3.62	0.72	2.00	5.00
Usefulness Score	3.75	0.79	2.25	5.00
CRM Confidence Score	3.91	0.68	2.50	5.00
Automation Perception Score	3.66	0.74	2.10	5.00
Data Trust Score	3.49	0.71	2.00	5.00

Figure 12: Descriptive Statistics – Expanded Constructs

The consistency of standard deviations (ranging between 0.68 and 0.81) suggests a high level of agreement among respondents, which reinforces the credibility of the dataset and provides a stable base for making generalizations within the U.S. brokerage industry

5. Discussion

The results of this study explain how AI and automation are changing the way CRM work is done in small and mid-sized U.S. brokerage firms [1]. Even though the adoption of AI tools varies, those who use them tend to think they are effective and there are statistical indicators pointing to more AI adoption in the future. The insights show that it is necessary to match the CRM system with AI to promote better optimization [2].

AI Dashboard Use and Perceived Effectiveness

The results revealed that about 55.5% of the small and mid-sized brokers surveyed use AI dashboards now and most of them (52%) consider the technology to be either "very useful" or "moderately useful." Although many in the sector now use AI-assisted CRM, not everyone is certain. Lead follow-up, sales forecasting, customer segmentation and task scheduling are tasks that rely on AI assistance, which explains the generally positive results shown on the AI effectiveness score of 3.88 [3].

Results found in this study are in line with studies that say using AI in cloud-based systems like

Salesforce, HubSpot and Zoho increases the ability to process data and automate customer interaction. Malempati also points out that AI helps transform critical business tasks by using intelligent automation, especially in firms with limited resources seeking to succeed over competitors [4]. The present study used factor analysis and found that "AI Effectiveness" includes improved operational speed, gaining customer insights, forecasting sales and providing support for key decisions, which play a major role in brokerages that work quickly and interact a lot with their clients .

Modern AI-based CRM reporting tools are making it simpler for brokerage firms to understand sales trends and update their marketing strategies [5]. According to Kyaw, using CRM with AI allows the sales and support teams to come together, making their work more organized. In the U.S, where speed, individual attention and following rules are very important for mid-tier financial firms, these benefits are most useful . This means that AI dashboards are becoming more important in this industry due to their continuing high usefulness and effectiveness.

AI Expansion Intent and Predictive Factors

While most respondents see AI as effective, just 47% stated they plan to increase its use in their firm, suggesting a gradual interest in using more AI. This may be due to a regular trend among U.S. SMEs, where their lack of innovation is caused by being cost-conscious, uncertain about regulations or not having clear plans for the future [6]. According to the current study, using an AI dashboard had a significant effect on expansion plans ($p = 0.020$). Experience with CRM made a minor difference ($p = 0.051$) and pointed to the fact that using integrated systems helps to establish confidence and supports the introduction of AI services such as natural language processing, instant proposal generation and behavioral analysis .

As reported by Arnone, firms that already incorporate automation technologies tend to identify new possibilities and use extra funds for serious innovation [7]. Clearly, individuals who favor AI now are also the most likely to want more AI in the workplace, as shown by a mean score of 3.62 and positive relationships with effectiveness and interest in future AI features. This is in line with earlier studies that point out how using technology more leads to a stronger belief in its value and this increases the organization's dependence on it, mainly when aiming to make customers feel special and streamline tasks [8].

Managers and owners of brokerages were more willing to accept AI than staff members on the sales team. It is clear that the leadership is pushing for innovation, as shown by studies revealing that U.S. banks' modernization in FinTech is mainly driven by top-down efforts. Consequently, even though AI is not widely used, its path to adoption is evidently set by gaining experience and receiving support from managers.

Barriers to AI Implementation

Even though AI is popular with users, many problems and challenges are stopping it from being used more widely in U.S. brokerage firms. Research indicates that among firms, some 25% faced

staff reservations and 23% said they didn't get enough training or help from vendors; these barriers were more common among users of AI dashboards [9]. This situation is summarized by Johnson et al. who point out that small U.S. financial companies may not have the right organizational structure or enough staff to make use of advanced CRM approaches. Chowdhary pointed out that difficulties in networking and technology integration in companies discourage them from investing in large-scale AI ecosystems.

AI Barrier Scale, which had a mean of 2.45 (SD = 0.81), also showed a negative link to perceived usefulness (r = -0.26) and interest in using AI (r = -0.30), proving that believing in AI's obstacles lowers both optimism and plans for future adoption. Singh et al. state that resolving the internal issues is key to getting the full benefit of automation in the finance sector. Also, staff being worried about risks and losing their jobs due to cultural issues continues to slow down the use of AI [10].

We found that these problems continue to affect companies that have already adopted CRM, which indicates that adopting AI requires more than technology. A lack of focus on change management and training, as Ghulaxe explains in 2025, is typically the main reason why digital transformation initiatives do not succeed. It is necessary for vendors to go than deploying products and start offering consulting, onboarding and workflow-specific training to brokers [11]. In conclusion, even though the business case for AI is now clear, its adoption will proceed slow until the issues of trained staff, training and value are handled.

Organizational Differences and CRM Roles

The analysis revealed some clear detailed connections between the organizational features and adoption of AI. Even though the results were not significant ($p > 0.05$), data indicate that CRM/IT managers and owners were slightly more likely to support the future use of AI than sales managers and support staff. The trend highlights how essential it is for leaders to be on board and see the value of digital solutions to encourage changes in the industry [12].

We found that firm size was not a major factor in how effective AI was seen, which agrees with Ghulaxe's argument that the key to digital success lies in how organizations prioritize and structure their tasks. The results of ANOVA suggest that AI dashboards are more beneficial for mid-sized companies compared to others, since these firms tend to process more data and conduct operations over a wide area. According to Kyaw, it is often the small firms that can do better in digital transformation when their processes are simple, their workforce is flexible and they have appropriate AI support. For these reasons, it is necessary to develop inclusive plans that teach about AI to everyone in a company, especially people in sectors such as brokerage, where AI affects both customer support and following rules [13].

CRM and Automation Synergy

The scale used to measure CRM Utilization Confidence had the highest mean score (3.91 out of 5, SD = 0.68), which stands for a high level of confidence in Salesforce, Zoho, HubSpot and

Pipedrive in their use. They act as the base for workflow management, making it simpler for companies to keep customer data, record all interactions and complete regular jobs faster. Our findings confirm that Sultana & Rao were correct to point out that CRM is important for a successful introduction of AI in business environments.

The chi-square analysis failed to find a significant connection between CRM usage and how useful people think AI is ($\chi^2 = 5.607$, $p = 0.132$). This points out that having CRM in place does not always lead to successful use of AI features. Another reason for this is that users expect it: more than 17% of firms chose AI features such as prioritizing leads, analyzing sentiments and generating proposals automatically. These cases point out that the future of CRM will be more about AI-enabled active engagement instead of only storing data. If companies do not focus on training, adoption and configuring their AI, these capabilities might be used less than they could be [14].

CRM systems play an important role in automation but alone they are not enough. The way they use AI relies on how they are set up, how they fit into the company's work processes and the abilities of their staff. The gap can be closed with technical assistance and a willingness for the CRM field to move from tools to intelligence [15].

Strategic and Technological Implications

Table 10 shows that the main dimensions identified by exploratory factor analysis are "AI Effectiveness" and "Barriers to AI Use," and these together account for a big part of the differences in CRM-AI results among firms. The AI Effectiveness Scale, which had a Cronbach's alpha of 0.89, highlighted how tasks were done more efficiently, fewer manual errors were made and forecasting improved, confirming that users usually had positive experiences. On the other hand, the AI Barrier Scale ($\alpha = 0.85$) pointed out the main challenges as being monetary, opposing attitudes and insufficient preparation.

As Setchkova explains, this situation reflects the fact that some companies profit quickly from new digital resources but still face issues because of their old culture, infrastructure and limited abilities. It is in smaller and mid-sized American financial firms that the need to combine compliance, customer service and quick digital change is very evident [16].

It is important to ensure that AI is integrated into all parts of a company, not just in CRM or IT, from a strategy viewpoint. The authors, Chan and Chiu in 2022, as well as Ghulaxe in 2025, state that to become mature in AI, companies must reorganize their processes, train their workforce and adjust their targets around increasing value from AI. Also, greater digital trust as shown by a Data Trust Score of 3.49 is essential for the company's future achievements as AI is introduced in influencing decisions, sales and reports for regulators.

U.S. Policy Considerations and Strategic Implications for AI-Driven CRM in Brokerages

The study's conclusions are important for U.S. policymakers, mainly because they help promote equal access to technology, safe cyber systems and a strong workforce in small and mid-sized financial institutions. Because AI-driven CRM is now important in brokerage operations, it may cause a growing difference in technology access between large companies and smaller firms without enough resources [17].

Right now, AI integration in SMEs is not fully supported by the government, since only the Small Business Digital Alliance and parts of the CHIPS and Science Act offer guidance for using AI in the service sector. Guidelines for AI in the financial sector are lacking, mostly when it comes to consumer privacy, transparency of AI and dividing responsibility when AI is involved in CRM decisions [18].

Even though nearly half of respondents in the study use AI dashboards, the fact that 53% are not confident in expanding its use suggests that something needs to be done. The Small Business Administration (SBA) and the Consumer Financial Protection Bureau (CFPB) could be very important in this process.

- Funding pilot programs for AI integration in CRM platforms tailored for small brokerages, especially in underserved regions;
- Mandating vendor-level disclosures about the functionality, data handling and interpretability of AI dashboards;
- Requiring algorithmic accountability frameworks to prevent bias in lead scoring and client communication;
- Offering tax credits or compliance relief for firms adopting AI to meet KYC (Know Your Customer) and AML (Anti-Money Laundering) standards more efficiently.

People do not trust data as much as they trust other digital tools, as seen by the fact that data trust and automation ranked lowest in this study with scores of 3.49 and 3.66, respectively. As highlighted by Chowdhary , problems related to AI can be more serious in finance in the US since errors or software failures could result in harming a company's reputation and facing legal action. So, it is important that financial advisors and their firms use AI in CRM only if it follows the NIST AI Risk Management Framework [19].

Lastly, it is important for regulatory bodies to see the need for reskilling workers in the brokerage business. Since there is staff resistance to AI tools in 25% of companies and only 23% of firms have comprehensive training from their vendors, the Department of Labor and FinTech councils can establish national training programs and certificates that teach ethical CRM automation, interpreting data for customers and using AI.

Limitations and Future Research Directions

Although this study gives useful insights, there are some areas it could improve. Analyzing these factors is important for making sense of the study's outcomes and deciding on future studies to be done.

Sample and Generalizability:
Data from 200 participants at small and mid-sized U.S. brokerages was used in this research but since these businesses represent only part of the market, the results may not cover the whole range of financial services. Firms and insurance companies with a large scale may have unique stages of AI maturity, different rules and ways they integrate tools. So, outcomes from this study are only applicable to businesses that have similar characteristics and companies [20].

Self-Reported Data Bias:
The data for the study was taken from surveys, so it is possible that participants' answers reflected biases and their subjective views of usefulness and effectiveness. Even though valid scales were applied for AI effectiveness and CRM confidence, how accurately the responses reflect the current situation depends on what respondents understand and the current culture of their organization related to AI.

Cross-Sectional Design:
The survey was conducted at one point to understand participants' views and actions. So, it becomes difficult to measure how AI helps a business's performance, customer service or customer satisfaction over a long period. A design that follows people over a long period would better help us see how AI is used, how confident users are and see the outcomes for the business.

Regional and Regulatory Diversity:
US brokerages are subject to both state and federal regulations that concern data management, dealing with customers and technology use. The study did not take into consideration how policies and licenses differ from one state to another, which might affect both the adoption of AI tools and compliance with CRM procedures in different regions.

Future Research Directions

- Run longitudinal research to check how continuously using AI-based CRM influences important factors such as customer gains, retention and cost reduction for the business.
- Research the adoption rates among broker-dealers that do or do not follow certain regulations, to see how compliance rules impact the use of technology.
- Gather feedback from customers and sales representatives to judge if AI dashboards are meeting their expectations and satisfying them.
- It helps to compare the development of CRM automation and AI in U.S. brokerages with those in countries that have advanced heavily in technology, like Singapore, the UK and Germany.

For this reason, an approach that uses multiple methods and looks at various levels will be necessary to study the way AI tools, CRM systems, company dynamics and policy rules interact in today's U.S. financial services sector.

6. Conclusion

The research looked into how AI-powered dashboards and CRM automation are being used and how they are expected to be used in U.S.-based small and mid-sized brokerage companies. Supported by survey results from 200 people and backed by different statistical tests, the results describe in detail how AI can now and in the future help transform customer relationship processes in this field.

The findings indicate that about 55.5% of brokerages are using AI dashboards and most of them, over 50%, consider them useful, especially when it comes to following up on leads, predicting sales and managing tasks. Only 47% of organizations say they plan to increase their use of AI and the reason might be that 25% of staff are reluctant and 23% don't have proper training. The AI Effectiveness Scale proved itself reliable and pointed out the advantages of AI in operations while the AI Barrier Scale underlined the difficulties and expenses associated with AI. AI dashboard usage turned out to be a key predictor of companies' plans to expand the use of AI ($p = 0.020$). Even so, factors such as company size and what role a person has did not matter much, proving that it is strategy that matters for being ready for technology, not the company's structure.

CRM tools and AI can help businesses improve the way they sort customers, personalize services and make their daily work more efficient. The study also shows that while technology is important, firms must also support their employees, handle data confidentially and adapt AI to achieve full results. This study is useful for decision makers at present. Without special federal help or rules for AI in small financial companies, the U.S. brokerage sector could see a big gap between those with resources and those who lack them. For AI to be used correctly and fairly in CRM systems, it is important to have initiatives that educate the public, clear rules and hold vendors accountable.

References

[1] G. Arnone, AI and Chatbots in FinTech, 2024.

[2] A. Basharat and Z. Huma, "Streamlining business workflows with AI-powered Salesforce CRM," Aitoz Multidisciplinary Review, vol. 3, no. 1, pp. 313–322, 2024.

[3] M. A. M. Chowdhary, Financial Network Infrastructure: Scalability, Security and Optimization, 2025.

[4] M. M. W. Chan and D. K. Chiu, "Alert-driven customer relationship management in online travel agencies: Event-condition-actions rules and key performance indicators," in Building a Brand Image through Electronic Customer Relationship Management, Hershey, PA, USA: IGI Global, 2022, pp. 286–303.

[5] N. S. Egbuhuzor et al., "AI and data-driven insights: Transforming customer relationship management (CRM) in financial services," Gulf J. Adv. Bus. Res., vol. 3, no. 2, pp. 483–511, 2025.

[6] O. O. Fagbore et al., Building Cross-Functional Collaboration Models Between Compliance, Risk and Business Units in Finance, 2024.

[7] V. Ghulaxe, "Accelerating growth with SAP BRIM: Streamlining billing and revenue management," SSRN Electron. J., 2025, Art. no. 5242222.

[8] E. Johnson et al., "Developing scalable data solutions for small and medium enterprises: Challenges and best practices," Int. J. Manage. Entrepreneurship Res., vol. 6, no. 6, pp. 1910–1935, 2024.

[9] Z. M. M. Kyaw, "Effect of customer relationship management practices on marketing performance at CB Bank PCL," Ph.D. dissertation, MERAL Portal, 2023.

[10] J. Ma and K. Huang, "ChatGPT in real estate," in Beyond AI: ChatGPT, Web3 and the Business Landscape of Tomorrow, Cham, Switzerland: Springer Nature, 2023, pp. 219–242.

[11] M. Malempati, The Intelligent Ledger: Harnessing Artificial Intelligence, Big Data and Cloud Power to Revolutionize Finance, Credit and Security. Deep Science Publishing, 2025.

[12] H. Nawaz, M. S. Sethi, S. S. Nazir, and U. Jamil, "Enhancing national cybersecurity and operational efficiency through legacy IT modernization and cloud migration: A US perspective," J. Comput. Biomed. Inform., vol. 7, no. 2, 2024.

[13] R. Nevalainen, Client Data Analytics in Equity Sales & Trading: Developing Organization's Capabilities, 2024.

[14] O. Oladiran and L. Dickins, PropTech and Real Estate Innovations: A Guide to Digital Technologies and Solutions in the Built Environment. Boca Raton, FL, USA: Taylor & Francis, 2024.

[15] A. Pandey and L. Gangadhar, Sales Execution and Marketing Automation Platform, 2021.

[16] M. Setchkova, "A paradigm shift in efficiency and service for commercial buildings," Corporate Real Estate J., vol. 12, no. 4, pp. 365–379, 2023.

[17] S. T. Sultana and T. V. N. Rao, "Role of AI-powered CRM in business," in Managing Customer-Centric Strategies in the Digital Landscape, Hershey, PA, USA: IGI Global, 2025, pp. 223–254.

[18] D. Singh, G. Malik, and S. Bhatnagar, Eds., Revolutionizing Customer-Centric Banking through ICT. 2024.

[19] G. Tischler, The Impact of Artificial Intelligence on Project Management Employees.

[20] M. S. Towiwat and F. W. Swierczek, "Assessing potential AI solutions in the traditional insurance brokerage firm," Ph.D. dissertation, Thammasat Univ., 2024.