

INDIAN INSTITUTE OF MANAGEMENT AHMEDABAD



**Evaluating the changing horizons of consulting and
business because of the advent of AI**

Submitted Towards Partial Fulfilment of the Requirements of the Course

PROJECT COURSE

SUBMITTED TO

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ON

29TH AUGUST 2023

Table of Contents

Executive Summary – AI and ChatGPT	i
Methodology for the paper.....	iii
Introduction to AI.....	1
History & Evolution.....	2
Literature Review.....	5
The Impact of Artificial Intelligence on Firm Performance: An Application of the Resource-Based View to e-Commerce Firms	5
Impact of Artificial Intelligence on Businesses: From Research, Innovation, Market Deployment to Future Shifts in Business Models.....	6
The Current and Future Impact of Artificial Intelligence on Business	6
Artificial Intelligence in Management Consulting.....	8
Current Landscape (Primary Research) -.....	8
Current Landscape (Secondary Research/ Analysis of Strategic Collaborations)	10
McKinsey and artificial intelligence (AI)	10
Bain and OpenAI	11
Strategy for Execution & Implementation	13
Low-Security Tasks.....	14
High-Security Tasks	15
Zone of the Consulting Firms	15
Challenges and Pitfalls that firms need to be wary of.....	17
Challenges.....	17
Pitfalls	18
AI’s impact on the future of consulting	20
Impact of AI on hiring characteristics of management consulting firms	20
AI’s influence on administrative and project management in management consulting.....	20
AI’s impact on the nature of cases	21
AI’s impact on the design, slide-making, and production team in management consulting.....	22
Recommendations.....	23
Conclusion	24
References.....	25

Executive Summary – AI and ChatGPT

In today's fast-paced and ever-evolving business landscape, staying ahead of the competition is no longer a choice but a necessity. As technology advances, enterprises seek innovative solutions to streamline operations, enhance customer experiences, and make data-driven decisions. Among the myriad emerging technologies, one ground-breaking tool that has transformed how businesses interact with their customers and optimize their processes is ChatGPT (*OpenAI, n.d.*).

This paper aims to explore the myriad use cases of ChatGPT in business – especially consulting, examining how this cutting-edge language model has become an indispensable asset for organizations seeking growth, efficiency, and enhanced customer engagement. ChatGPT has the potential to empower consulting firms to thrive in the digital age due to its versatility and efficacy. From customer support to content generation market research to personalized recommendations and formulating strategy; ChatGPT can be a crucial asset.

In this paper, we have studied and suggested various applications of ChatGPT and generative AI in business applications – having a special focus on management consulting and a firm offering a product called ChapterGPT (ChapterGPT, n.d.). Here, Generative artificial intelligence (AI) describes algorithms (such as ChatGPT) that can be used to create new content, including audio, code, images, text, simulations, and videos. (What Is Generative AI?, 2023). Through a comprehensive analysis of real-world success stories like McKinsey's Quantum Black and Bain's OpenAI integration, we will delve into the practical applications of ChatGPT and the impact it has had on various consulting firms. The surveys, interviews, and the literature review help shed light on the strengths and limitations of this technology, we aim to provide a well-rounded understanding of how ChatGPT can be harnessed to augment business strategies, boost productivity, and foster a deeper connection with customers.

While adopting AI-powered technologies like ChatGPT raises questions about data privacy, ethical considerations, and potential challenges, the benefits they offer businesses cannot be ignored. As we delve into AI-driven customer interactions, automated workflows, and enhanced decision-making, we will also address the importance of responsible AI implementation and the need for a balanced approach to leveraging these cutting-edge tools for business advancement. For firms wanting to implement AI in their day-to-day applications, we **propose an indigenous framework** to integrate AI into their operations seamlessly. This framework provides a roadmap for businesses to harness the power of ChatGPT while maintaining data security and ethical standards.

Ultimately, we focus on the future scope of AI as this paper serves as a comprehensive guide for business leaders, entrepreneurs, and innovators looking to embrace AI technologies and unlock the full potential of ChatGPT. In conclusion, this research paper highlights the impact of AI, particularly ChatGPT, on the business and management consulting industry. By recognizing the current landscape, navigating challenges, and implementing strategies that align AI with business goals, consulting firms can effectively leverage this technology to enhance their services and address complex client needs.

Exhibit: ChatGPT's Executive Summary

(In sync with the theme of the paper we decided to feed our entire report to ChatGPT and asked it to produce an executive summary. The below version of executive summary of this paper is generated entirely by ChatGPT to showcase the power AI has in today's world. No other parts of this report have used ChatGPT)

This research delves into the multifaceted implications of integrating artificial intelligence (AI), specifically ChatGPT, into business and the management consulting sector. Combining primary research, secondary analyses of industry collaborations, and expert interviews, we scrutinize the present landscape, challenges, implementation strategies, and potential future trajectories tied to AI assimilation in consulting.

The primary research phase encompassed surveys and interviews with management consulting professionals, revealing the burgeoning uptake of ChatGPT within the industry. Significantly, approximately 70% of respondents conveyed contentment with ChatGPT's outcomes, showcasing its immediate efficacy in handling consulting tasks. ChatGPT's applications span diverse functions from refining search capabilities to aiding code completion. However, the journey is not without hurdles, encompassing intricacies of customization, data privacy apprehensions, and maintaining response quality.

Moreover, our exploration encompasses the strategic alliances of leading consulting firms with AI entities. Instances like McKinsey's Quantum Black and Bain's collaboration with OpenAI exemplify the industry's cognizance of AI's transformative potential. These collaborations mirror endeavors to synergize AI prowess with human acumen to address intricate business challenges.

Our **indigenous framework for AI implementation** proffers a structured methodology for categorizing tasks grounded in security, complexity, and repeatability. This framework empowers firms to adroitly integrate AI where it yields maximum value while presenting alternative avenues for effective execution.

Subsequently, we delve into the challenges and pitfalls of ChatGPT usage. Notably, data privacy emerges as a pivotal concern, with firms exercising prudence due to ChatGPT's potential exposure of sensitive data. Striking a harmonious balance between the rewards of AI integration and robust data privacy measures is pivotal in informed decision-making.

The study also casts a forward-looking vision on the evolution of consulting cases under AI's sway. In the immediate term, AI is poised to enhance consulting firms' capabilities and operational efficiency. In the long run, conventional consulting purposes might evolve as AI fills competency gaps within client entities. Nonetheless, the significance of human expertise remains unassailable, especially in specialized industries and high-security endeavors.

The transformative undercurrents of AI ripple through design, slide creation, and production teams within consulting firms. Automated slide generation, personalization, and natural language processing promise to reshape these domains, fostering efficiency and customization.

In culmination, this research paper underscores the profound imprint of AI, particularly ChatGPT, on business and the management consulting sector. By discerning the contemporary panorama, surmounting challenges, and executing strategies that align AI with organizational objectives, consulting firms can adroitly harness this technology to elevate their services and tackle intricate client requisites.

Methodology for the paper

To look at the potential role that AI and LLM models can play in the world of consulting and business in general we followed the following procedures to come up with the model:

1. Assessment of History:

We started off by looking at the various AI models that are there, the history and evolution of the same to better understand the technology.

2. Literature review:

We then looked at some existing research that explored the relationship between AI and business processes and consulting.

3. Survey:

While conducting the literature review, we observed that not a lot of material is available on the internet about the impact of AI in the lives of consultants. We decided to conduct a survey to understand the impact that AI has had on consultants. We further looked at how consulting firms are embracing AI and ChatGPT by looking at the strategic collaborations that the various consulting companies have fostered into with the AI companies.

4. Model Development

Based on the literature review, primary research, and secondary research, we realized that while most firms are eager to adopt AI, they do not have a structured approach in deciding when and what kind of AI product to adopt.

We created a *2x2x2 matrix framework* that firms can use to decide when they should be using AI and what kind of AI product to adopt.

5. Recommendation and prediction

We finally predicted some of how AI can shape the future of the consulting industry and looked at it through the lens of the nature of cases, admin, and project management tasks, on the production and design team and finally the hiring attributes that these firms look for in the candidates.

Finally, to conclude, we provide our recommendation for the firms to navigate through this uncharted territory of AI and make the most of it by looking at some of the potential challenges and pitfalls that these firms can encounter

Introduction to AI

Artificial Intelligence –

AI refers to the broader concept of enabling machines to perform tasks that typically require human intelligence (Burns et al., 2023). It encompasses a wide range of techniques and approaches to mimic human cognitive functions, such as problem-solving, reasoning, decision-making, and language understanding.

Machine Learning –

ML is a subset of AI that involves training algorithms to learn from data and improve their performance over time (Vrontis et al., 2021). It focuses on developing techniques that allow computers to identify patterns, make predictions, or solve problems based on provided examples. ML encompasses various paradigms, including supervised learning, unsupervised learning, and reinforcement learning.

Neural Networks –

Neural networks are a computational model inspired by the human brain’s structure and function (Singh, 2023). They consist of interconnected nodes (artificial neurons) organized in layers. Each connection has a weight that adjusts during training. Neural networks are a technique used within ML. Not all ML algorithms involve neural networks, but neural networks are a popular choice for complex tasks.

Deep Learning –

Deep learning is a subset of neural networks. It involves neural networks with many layers, enabling them to learn intricate patterns and representations from data (What Is Deep Learning? | IBM, n.d.).

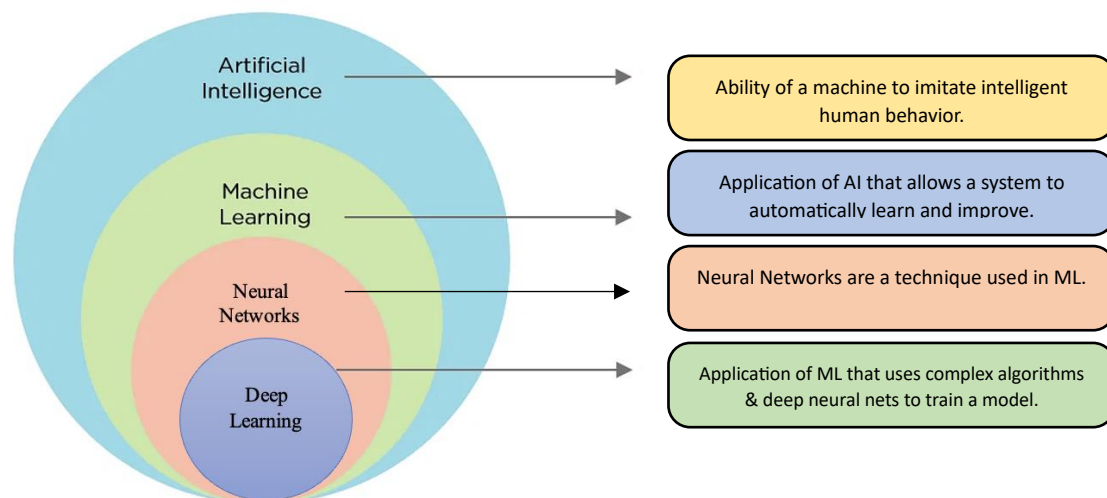


Figure 1: Introduction to AI (Retrieved from Shrutti, 2023)

History & Evolution

In this section, we focus on the evolution of AI models in general. Artificial intelligence and natural language processing advancements have marked the journey toward creating ChatGPT. These are mainly breakthroughs in man-machine interactions over time. Let's delve into the historical timeline of technology to understand better the stepping stones that led to the emergence of this cutting-edge language model.

As we embark on this case study exploring the applications of ChatGPT in the business world, it is essential to acknowledge the strides made in AI and NLP that led to the creation of this transformative technology. (*See Figure 2*)

Rule based Chat Bots

In the early days of AI, rule based chatbots emerged in a first attempt to simulate human like conversations

- Predetermined responses
- Decision Trees based on if-else rules

Machine Learning Based Chatbots

As machine learning algorithms gained popularity, chatbots began to adopt more dynamic responses

- Learning from historic responses and user interactions; more context aware responses
- Understanding of natural languages was quite primitive - struggled with complex queries and conversations

Neural networks and Deep Learning

The breakthrough in neural networks and deep learning brought a paradigm shift in AI capabilities

- With the advent of powerful GPUs & advances in training algorithms, models could now be trained on vast amounts of data
- Could learn complex patterns and representations from languages. Development of models like **Word2Vec**("Word2vec," n.d.) and **GloVe**

Transformer Architecture

The Transformer architecture, in the paper "Attention is All You Need" (*Vaswani et al., 2017*), marked a turning point in NLP

- Leveraged self-attention mechanisms to process entire sequences of words at once, capturing long-range dependencies & context effectively
- Laid groundwork for language models like **GPT** and **BERT** which achieved state-of-the-art results in various NLP tasks

Generative Pre-trained Transformer

In 2020, OpenAI unveiled GPT-3, a massive language model consisting of 175 billion parameters.

- Remarkable language understanding & generation abilities, capable of answering questions, writing essays & natural conversations
- Paved the way for ChatGPT, a user-friendly interface that allowed businesses to integrate GPT-3's capabilities (*Wikipedia contributors, 2023*)

GPT-4

Referred to as 10x more powerful than GPT-3.5, GPT-4 (*GPT-4, n.d.*) has revolutionised the way we talk to machines

- Ability to work with dialects, can connect the dots from various sources and cite them, can even write creative stories and poems.
- Has the ability to process data from images and analyse them.

Figure 2: Evolution of AI Technology

From rule-based systems to the emergence of GPT-4, each advancement has contributed to the evolution of AI-powered chat systems, empowering businesses to reimagine customer support, content generation, market research, and much more. Given below are a few examples of AI being used to foster the conversation between a man and a machine. (See Figure 3)

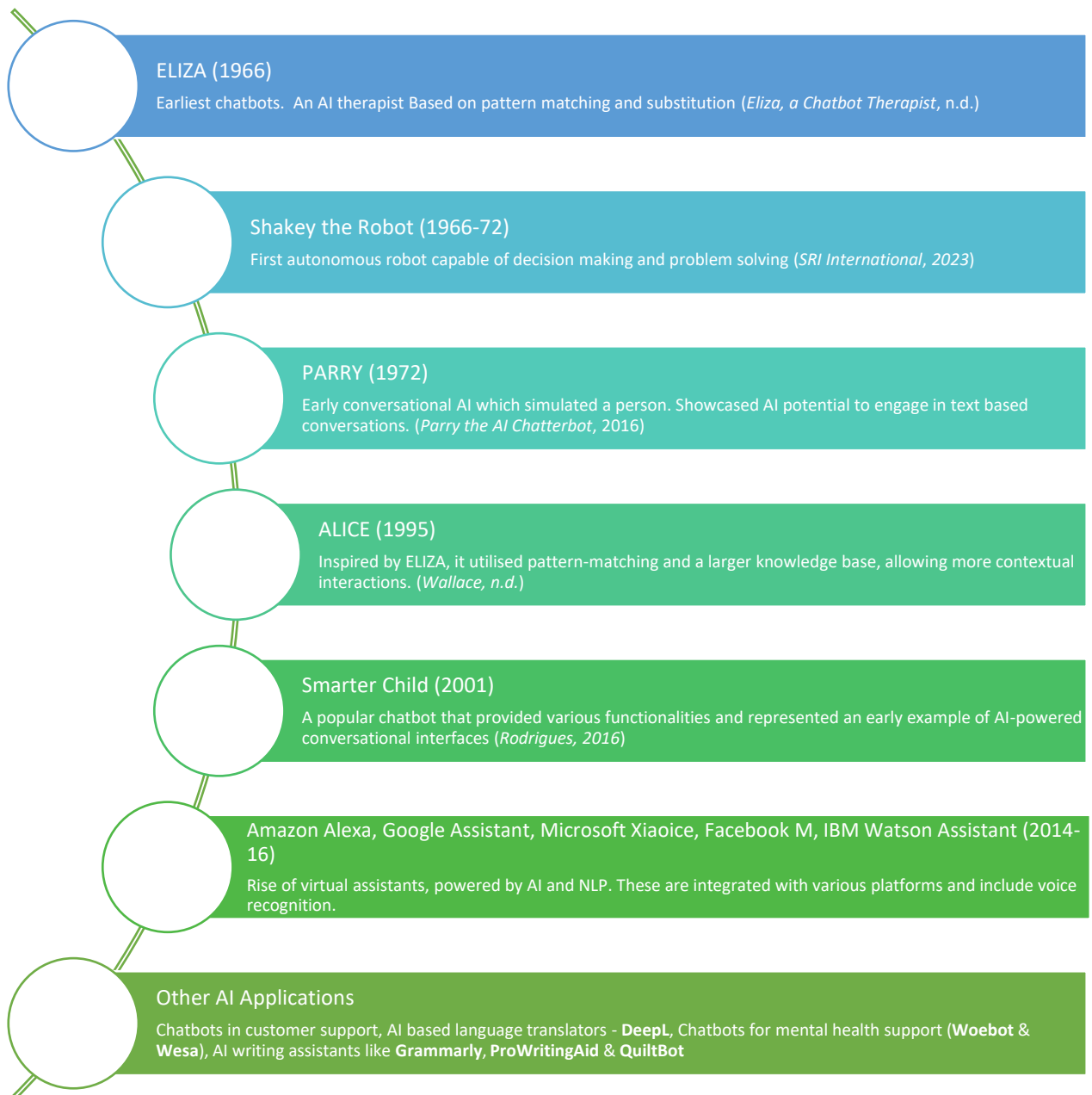


Figure 3: Timeline of use of AI in Man-Machine conversation

The continued advancement in AI-driven conversational systems has transformed how we interact with technology and opened numerous possibilities for business applications. From virtual assistants to language translators and mental health support, AI chatbots have become invaluable tools in enhancing productivity, user engagement, and customer experiences across

various industries. Now that we have looked at the history, we looked at papers that highlight the importance AI can have in the business field in general and consulting in particular.

Literature Review

Considering the novelty of the topic, the research papers that we were able to find on the topics were relatively unpolished. We were unable to find a research paper that discussed the impact of AI on management consulting for example. This made us conduct a survey for the same. We next analyze the research papers that were available on the topic and look to incorporate the valid learnings into our model.

The Impact of Artificial Intelligence on Firm Performance: An Application of the Resource-Based View to e-Commerce Firms

This paper by Donghua Chen, José Paulo Esperança, and Shaofeng Wang of the Zhejiang Wanli University, China, University Institute of Lisbon, Lisbon, Portugal, and Beijing Normal University, Beijing, China, written in 2022 dealt with the relationship among artificial intelligence capability (AIC), management (AIM), driven decision making (AIDDM), and firm performance.

Here, the author uses a resource-based view (RBV) as the underlying theoretical framework to argue that AIC can be a source of competitive advantage for e-commerce firms.

They further look at a model of AIC, which can be broken down into three dimensions: basic resources, proclivity, and skills.

They further proposed the link between AIC and firm performance where they argued that AIC could lead to improved company performance through the following three mechanisms:

- **Enhanced efficiency:** AIC can help e-commerce firms to automate tasks, improve decision-making, and optimize processes. This can lead to reduced costs and increased productivity.
- **New product and service development:** AIC can help e-commerce firms develop new products and services that meet customers' needs. This can lead to increased sales and market share.
- **Improved customer experience:** AIC can help e-commerce firms to provide a better customer experience through personalized recommendations, real-time customer support, and other services. This can lead to increased customer loyalty and repeat business.

The hypothesis is tested on a sample of 394 e-commerce firms in China, where they find that AIC is positively associated with firm performance.

Additionally, the paper also provides several insights for managers of **e-commerce firms**.

- It emphasizes the importance of developing and implementing AIC.

- It suggests that managers should focus on developing all three dimensions of AIC: basic resources, proclivity, and skills.
- It further suggests that managers should use AIC to enhance efficiency, develop new products and services, and improve the customer experience.

Overall, the research contributes significantly to the literature on the influence of AI on corporate performance. The study's findings indicate that AIC can be a key source of competitive advantage for e-commerce enterprises. (*Chen et al., 2022*)

Impact of Artificial Intelligence on Businesses: From Research, Innovation, Market Deployment to Future Shifts in Business Models

This paper by Neha Soni, Enakshi Sharma, Narotam Singh, and Amita Kapoor of the University of Delhi was based in 2019 and looked to analyze the influence of AI from research and development through deployment. The paper discusses critical academic achievements and discoveries in AI and their impact on entrepreneurial activity and, as a result, the worldwide market. The research also contributes to the investigation of elements responsible for AI advancement.

It delves deeply into the AI startups that were coming in 2017 and 2018, the sectors in which these startups were coming up, and the funding trends in these startups. It further conducted a geographical analysis of where these startups are coming from and the data sets available.

Overall, we felt that the paper was written at a very nascent stage of AI, and the authors did well to adopt a startup-based approach to look at the generation of AI. However, given the title of the paper being AI and Business, the business aspect of the paper seemed to be missing, (*(PDF) Artificial Intelligence in Business: From Research and Innovation to Market Deployment, 2020*)

The Current and Future Impact of Artificial Intelligence on Business

Ann Geisel wrote this paper, and it tried to examine the current and future impact of artificial intelligence on business in six areas:

1. **Task automation:** AI can automate numerous repetitive jobs that humans now perform, such as customer support, data entry, and scheduling. This allows staff to concentrate on more creative and strategic tasks.
2. **Improving decision-making:** Artificial intelligence (AI) can assist organizations in making better decisions by analyzing massive volumes of data and detecting trends that humans may overlook. This can result in more accurate estimates, better resource allocation, and more effective consumer targeting.

3. **Personalizing Customer Experiences:** AI can be used to personalize consumer experiences by recommending items, services, and content likely to interest each unique customer. Customer satisfaction and loyalty may improve as a result.
4. **Creating new products and services:** AI may optimize corporate processes by identifying areas where expenses can be cut, or efficiency can be increased. This has the potential to boost profitability and sustainability.
5. **Developing new products and services:** AI can be used to create new products and services that satisfy customers' needs in novel ways. This can lead to new income and growth opportunities.
6. **Solving complex problems:** AI can address problems humans cannot solve, such as fraud detection, medical diagnosis, and traffic optimization. This can potentially make societies safer, healthier, and more efficient.

The report finishes by analyzing the obstacles and opportunities to implement artificial intelligence in business. It further talked about the necessity for data, the possibility of prejudice, and the ethical implications of AI as the challenges of AI. The report agrees that the potential benefits of AI exceed challenges and organizations that embrace AI will be well-positioned for future success. *(Geisel, 2018)*

In this section, we sought to find the impact ChatGPT-like AI models can have on the consulting field. However as mentioned earlier, we were unable to find literature in this niche space. So to gain more information regarding the same, we floated a survey among employees and interns in leading consulting firms while also interviewing managers for the potential applications of this new technology.

Artificial Intelligence in Management Consulting

Current Landscape (Primary Research) -

Keeping in mind the limited availability of papers deep-diving into consulting firms' adoption of Gen AI in their day-to-day activities, we decided to **conduct primary research** (survey) to better understand the current and novel use cases of generative AI in the consulting industry.

The research incorporated the following:

1. Survey with IIM A students:

- a. A survey was sent out to IIM-Ahmedabad students, who were then filtered based on their previous work experience.
- b. Students with consulting backgrounds (internship and full-time) were screened out to better understand the application and future implications of GenAI.
- c. Survey Design:
The survey was conducted in July 2023. It was a brief to the point questionnaire with 7 questions checking their understanding on the subject matter with an average time to fill at ~3-4 mins. A total of 76 respondents filled the survey. A majority of them had prior work experience in domain of management consulting (81.6% of the respondents were from consulting backgrounds)

2. Interviews with Employees:

- a. We also spoke with current consulting firm employees (engagement managers, consultants, and associates) to better understand the potential of artificial intelligence.
- b. We additionally incorporated information from our previous consulting work experience.

The study was divided into three sections:

A. Usage intensity and satisfaction:

Only 12% of those polled said they did not use Generative AI in their work. Over half of them used it sporadically, while about a quarter used it frequently. (See the below diagram for complete distribution). Furthermore, approximately 70% of respondents were satisfied or extremely satisfied with the current level of results they were receiving from GPT.

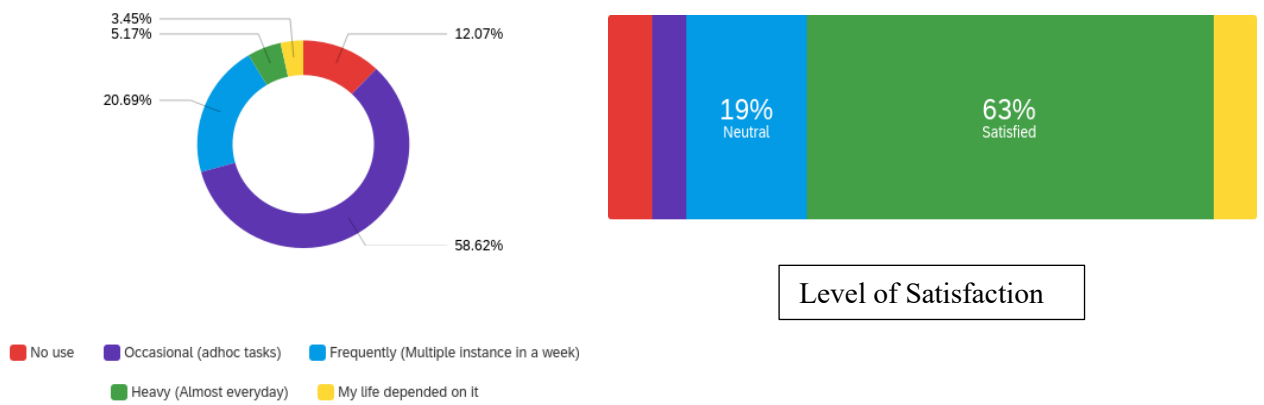


Figure 4a: Usage of GenAI models at consulting firms and the level of satisfaction of the user

B. Current applications and constraints

We discovered that the most common application of chat-based generative AI was as a replacement product for Google search. Some of the unusual applications included code completion, which was done with GPT 4.0, which can integrate with GitHub. This would be advantageous to procedural professional firms. GPT’s incorrect response rate was disliked by respondents. They were also dissatisfied because AI tools did not process their input as intended.

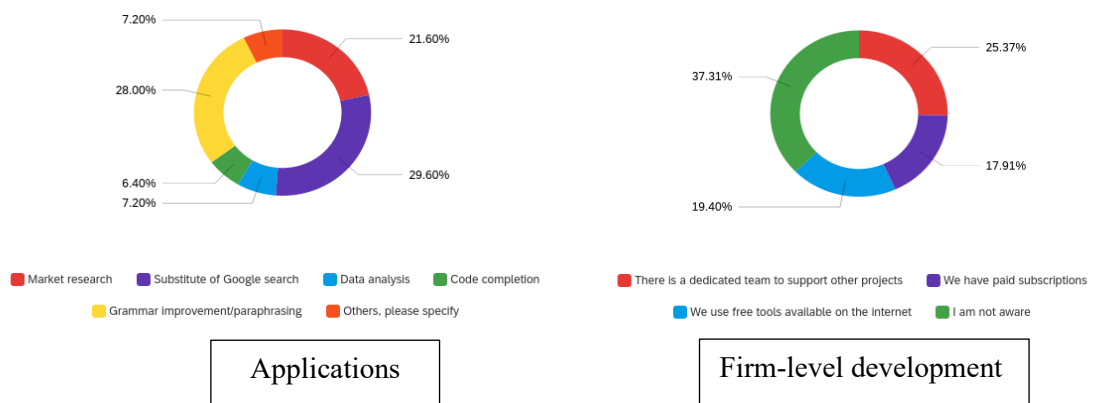


Figure 4b: Application of GenAI in consulting firms and the Firm-level developments

C. Prospects and challenges for the future

It is widely assumed that Generative AI will play a critical role in the future of consulting. More than a quarter of respondents believe it will significantly disrupt the consulting industry. Potential future applications discovered through primary research include complete commoditization of insights, accessible deck building, automated data research and analysis, and so on.

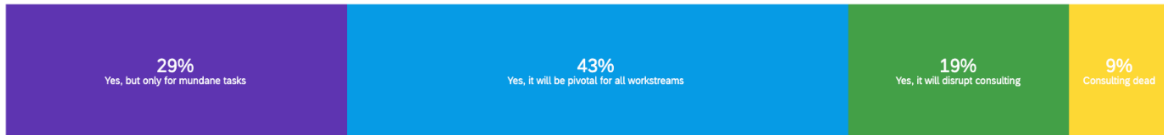


Figure 4c: Future effect of GenAI on consulting as per the respondents

Current Landscape (Secondary Research/ Analysis of Strategic Collaborations)

CEOs worldwide are currently endeavoring to optimize the utilization of Artificial Intelligence. In their endeavor to pioneer the business ramifications of artificial intelligence (AI) ahead of their competitors, they are seeking the expertise of reliable consultants. Despite the considerable value generated by technological advancements, there remains significant potential for further harnessing these advancements (*Khetrapal et al., 2023*).

McKinsey and artificial intelligence (AI)

McKinsey has established Quantum Black, an artificial intelligence (AI) division comprising a multidisciplinary team of engineers, product managers, designers, and data scientists. This collaborative team aims to enhance our AI capabilities and effectively address business challenges with efficiency and broad impact. QuantumBlack employs a methodology that leverages the symbiotic relationship between artificial intelligence and human expertise. The integration encompasses the rapidity exhibited by cross-functional teams, the profound knowledge in specific domains, the accuracy demonstrated by contemporary AI, and the exceptional business acumen possessed by McKinsey. Please refer to Figure 4 for a diagrammatic representation elucidating Hybrid Intelligence.

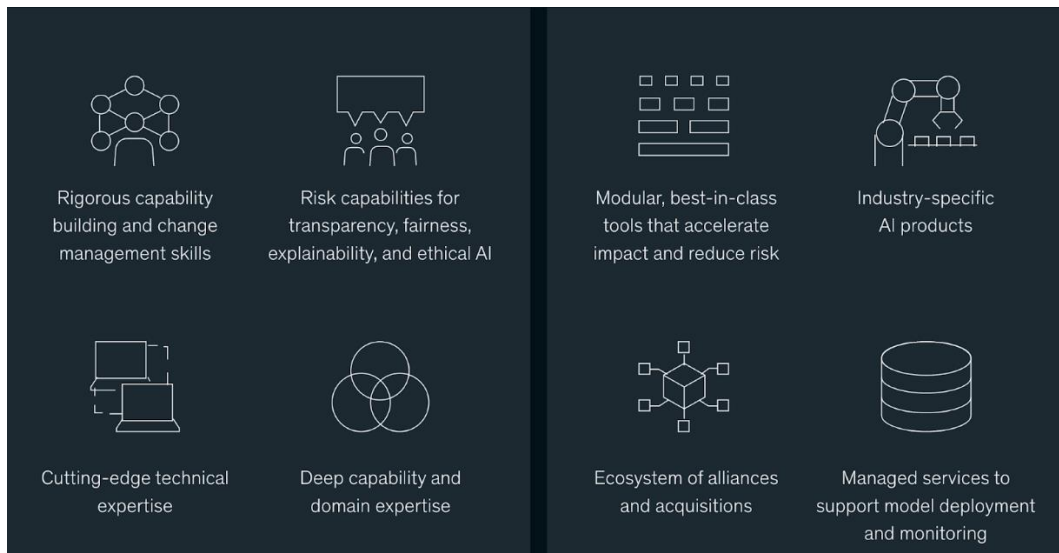


Figure 4: Diagrammatic Explanation of Hybrid Intelligence

Source: Retrieved from <https://www.mckinsey.com/capabilities/quantumblack/labs> on August 24, 2023

According to Alex Singla, a Senior Partner at QuantumBlack, McKinsey, the lab will do the following (*Don&Rsquo; T Wait&Mdash; Create, With Generative AI, 2023*):

- Define generative AI use cases to accelerate business strategy.
- Design a complete IT architecture, such as a generative AI stack, to integrate this technology.
- Develop and train AI models based on the client industry and specific context.
- Build employees' capabilities using deep industry and domain expertise.
- Introduce organizational changes needed to gain value from this technology.
- Refresh the use case roadmap as this technology matures and client needs evolve.

Over the past years, Quantum Black has completed over 300 R&D projects to help clients succeed.

Bain and OpenAI

The Advanced Analytics practice at Bain comprises a team of more than 500 professionals with expertise in data science, machine learning engineering, operations research, predictive analytics, and related fields. The firm's clients' most challenging problems are addressed by a team of algorithmic, technical, and business experts. Clients are provided with machine learning applications, business insights, technology architecture and engineering, organizational development, and analytics strategy. The group and the firm's industry and capability practices provide our clients with comprehensive business and technology solutions.

OpenAI, a prominent research and deployment organization responsible for the development of ground-breaking artificial intelligence (AI) systems such as ChatGPT, DALL-E, DALL-E2, and Codex, has recently declared a global services alliance with Bain & Company.

The collaboration arises from Bain's utilization of OpenAI technologies to support its extensive workforce of 18,000 knowledge workers. Bain has been leveraging OpenAI technologies for approximately one year to seamlessly incorporate its proprietary knowledge management systems, research endeavors, and operational procedures.

Bain and OpenAI have formed a partnership with the aim of extending OpenAI's innovative capabilities to a global clientele, building upon the initial achievements of these endeavors. Due to the establishment of this partnership, Bain will have the capacity to offer its worldwide client base the opportunity to utilize OpenAI's comprehensive range of artificial intelligence (AI) tools and platforms, such as ChatGPT. The primary objective is to support clients in identifying and leveraging the extensive business opportunities presented by AI.

Manny Maceda, Worldwide Managing Partner, Bain said:

"AI has reached an inflection point and we foresee a huge wave of change and innovation for our clients across industries. We see this as an industrial revolution for knowledge work, and a moment where all our clients will need to rethink their business architectures and adapt. By collaborating with OpenAI, we're delighted to have unmatched access to state-of-the-art foundation AI models so that we can create tailored digital solutions for our clients and help them realize business value." (AI Outlook, 2023)

Having studied the literature in detail and after gaining knowledge through surveys and interviews, we realized that there were no guidelines for firms to use AI technologies. In the next two sections, we focus on providing a guideline not only for consulting firms but for all firms in general. We also cover the due diligence a firm will have to take before and after implementing AI models.

Strategy for Execution & Implementation

As discussed, after our interaction with the managers at a leading consulting firm, we found out that most of their clients were clueless about when and where to use ChatGPT. Most of them wanted to use ChatGPT just for the sake of it. In most of the cases, there were simpler AI models available for the same, or humans would have done the job more efficiently. After going through the literature for a framework on AI, we found out that there was no framework that correctly captured all the cases. Hence, we propose an industry-first framework for the application of AI in business operations. This will help businesses know when to use ChatGPT and when not to. Also, alternative models have been suggested to minimize overall costs related to a particular case.

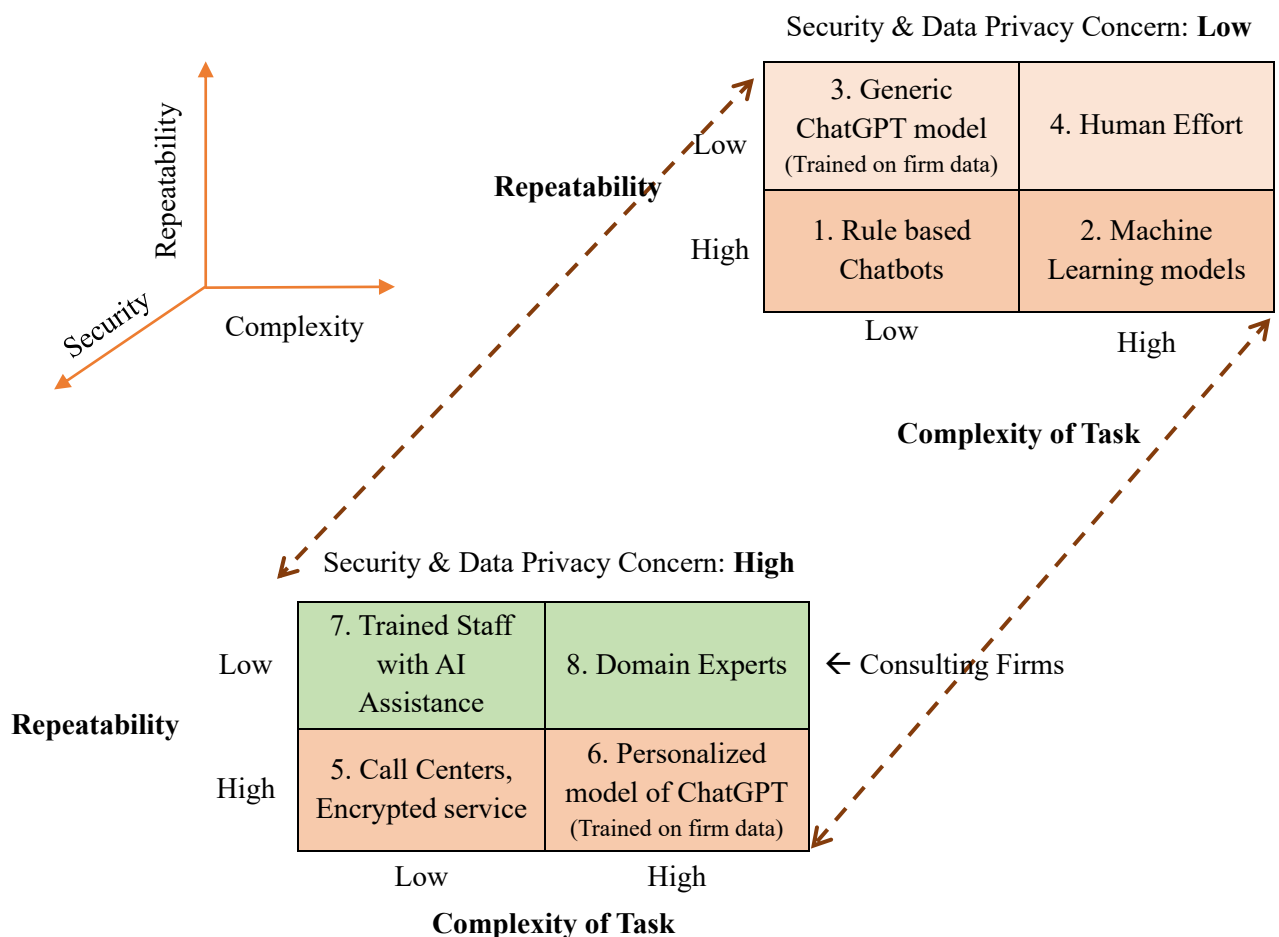


Figure 5: Industry First Framework for Application of AI in Business Operations

This framework aims to cover all aspects of business operations where firms might think about using Artificial Intelligence. We divide the operations into 8 parts using a 2x2x2 matrix on the dimensions of Security required for the business, Complexity of operation, and the repeatability of the task. Below is a short description of each of the parts of the framework.

Low-Security Tasks

Since any confidential data is not processed, firms do not have to worry about security issues. Some concern should of course be taken for a potential breach, but the cost of Security exceeds the cost of the data being protected. In these cases, mainly low-end and cheap models available on the internet should be used.

1. Security – Low, Complexity – Low, Repeatability – High

These are mainly customer-facing tasks that only process basic information. Here the data will be pre-fed to the AI model, and it can only perform a limited number of functions.

Use case – A customer support chatbot that guides users through a series of predefined options to help them troubleshoot common issues with a product or service.

2. Security – Low, Complexity – High, Repeatability – High

Since the complexity here is high, a normal chatbot cannot handle these tasks. Hence the need for **machine learning-based models**. These can handle complex tasks better than chatbots.

Use case – An AI-driven virtual assistant that assists customers in selecting complex combinations of products and services based on their unique requirements.

3. Security – Low, Complexity – Low, Repeatability – Low

These are niche queries which are not repetitive in nature. Thus, an advanced AI model like **ChatGPT** can handle these queries. Since the model is not handling any secure data, the firm can use the ChatGPT model which is available on the internet. In fact, **ChapterGPT**, a firm whom we interviewed, trains ChatGPT on the client firm's data to perform less complex and unique tasks like getting a sales representative help in answering customer queries.

Use case – A marketing AI tool that generates creative ad copy for unique and infrequent promotional campaigns, without processing sensitive customer data.

4. Security – Low, Complexity – High, Repeatability – Low

AI models cannot be trained on complex and non-repetitive tasks. And even if they do, the time between two such tasks are so high that it does not make sense to train a model and keep it waiting till the task occurs.

Use case – Complex equipment maintenance scheduling for a manufacturing plant, where AI is not practical due to infrequent and non-repetitive nature of tasks.

High-Security Tasks

As we have seen in the data privacy section, in case any confidential data is being processed, the firm should not risk any exposure to any Artificial Intelligence Model which is outsourced or available for public use. To maintain the Security, firms should use their employees especially in cases where the task is too complex for AI or when AI costs are higher than employee costs. Alternatively, they can use their own AI models which are trained on their own data to reduce bias and minimize security incidents.

5. Security – High, Complexity – Low, Repeatability – High

Highly secure data should be handled by encrypted networks or by humans. This will reduce the security issues, if any. In such cases, **AI models are not required** at all or have **minimal use**.

Use case - Handling confidential employee payroll data, where AI is neither needed nor utilized to prevent data exposure and security breaches.

6. Security – High, Complexity – High, Repeatability – High

Such tasks are highly complex tasks and can be outsourced to ChatGPT. However, it should be a personalized ChatGPT model to ensure that it generates context-relevant responses and that the data is **secure**.

Use case – Developing a proprietary AI-powered financial analysis tool for an investment firm to evaluate investment opportunities while maintaining data security and accuracy.

Zone of the Consulting Firms

This is the zone in which most consulting firms mainly operate as we have observed in our survey and the interviews conducted. This is not to say that other firms do not operate in this zone. Since we have earlier focused on consulting, we will be looking at this from a consulting perspective. Other firms which operate in this zone can also follow the same strategies.

7. Security – High, Complexity – Low, Repeatability – Low

This is mainly the research work that most analysts/ junior consultants do. ChatGPT can help them find articles quicker and easier. In our interviews we learned that the instructions which analysts give to the PPT team are like the ones which they can give to AI. Using AI can reduce the time required to make the presentations and make the process more efficient. Thus, trained staff working in this zone can benefit greatly through this. A key challenge here would be to make the clients comfortable with the use of AI and guarantee them data security and privacy. This can only be done if customized models are developed for the consulting firms. This will enable the associates to focus on more important tasks requiring soft skills like client interaction, relationship building and strategic decision making.

Use case – Creating a specialized AI model for a consulting firm that assists in strategic decision-making by analyzing market trends, competitive landscapes, and industry data.

8. Security – High, Complexity – High, Repeatability – Low

This is the zone in consulting firms where most partners and experts in consulting firms operate. Their domain expertise and experience are not substitutable by any AI model. The trust and the client relationships they have maintained are something which cannot be replicated. These tasks are where AI cannot be used.

Use case – In consulting firms, tasks falling into ‘*Strategic Mergers and Acquisitions (M&A) Advisory*’ category often involve high levels of Security due to handling sensitive financial and business data. The tasks are complex, requiring deep industry knowledge, strategic insight, and nuanced understanding of the client’s unique circumstances. However, these tasks are not highly repeatable, as each M&A deal presents unique challenges.

While implementing these AI models according to the framework, a firm might encounter various challenges and pitfalls. Our next section covers the likely obstacles an organization might face while integrating an AI model like ChatGPT, while also giving appropriate guidance on how to avoid them.

Challenges and Pitfalls that firms need to be wary of

In this section, we focus on the challenges in the implementation of Artificial Intelligence (AI) in various businesses and operations. While implementing AI into their business as per the framework suggested, a business must consider the below challenges and go ahead only when the challenges are resolved or the benefits, they offer outweigh the challenges. In the latter case, a comprehensive cost-benefit analysis must be carried out before proceeding further. Some pitfalls of using AI models, which the business might fall into after implementing ChatGPT, have also been discussed in this section.

Challenges

These are the Challenges a firm might face while or before implementing any AI model.

1. Customization – ChatGPT is a generalized model. Fitting the model to a particular firm and generating contextually relevant responses might be challenging. To fine-tune a model, a firm might have to invest lots of resources.
2. Data Privacy – Data privacy and Security is a serious issue which many firms and governments face today. It is the main issue because firms now-a-days are banning the use of ChatGPT by their employees. This is especially when businesses handle sensitive customer and client data. While integrating ChatGPT into daily functions, careful consideration should be made while using it to process or manage confidential data. Organizations must critically evaluate the types of data that will be processed by the AI system. This assessment involves identifying whether the data in question includes personally identifiable information (PII), sensitive financial data, proprietary business strategies, or any other confidential information that could have legal or ethical implications if exposed. As a safeguard, organizations can follow strategies encompassing implementing stringent data access controls, encryption mechanisms, and anonymization **techniques** to safeguard sensitive data. **Developing a clear data governance policy** that outlines the guidelines for data handling, access permissions, and retention policies can also be instrumental in maintaining data privacy.
3. Quality of the output – ChatGPT was trained on a particular dataset, and this might introduce bias in its outputs. The outputs generated might sometimes not be relevant in the context of the firm. Ensuring the quality and accuracy of the responses is a challenge, especially when dealing with complex or specific queries. The output will only contain publicly available information. However, there will be much more information to consider while implementing the same for a particular firm.
4. Lack of expertise in a particular domain – Businesses often need experts to guide them in a particular domain. AI models are often generalized models and **the data on which they train is not the data generated from experts**. So, a business cannot delegate expert advice to AI models. This might be dangerous as well.

5. Customization and Personalization: Tailoring ChatGPT to provide personalized and contextually relevant responses can be challenging. Businesses need to invest resources to fine-tune the model to meet their specific needs.
6. Politically correct responses – Using AI in customer/client-facing applications might lead to the concern of AI producing biased, racist, and inappropriate content. **The firm might be held liable in cases where the AI model gives a politically incorrect response**, in the same way, it might be liable for inappropriate employee behavior. Since this will mostly arise from training data, a firm must constantly monitor the data on which the model is being trained and ensure that the training data is free from any bias.
7. Managing user expectations – AI technology is still behind user expectations. Users expect prompt and quick replies from AI-driven chatbots. Managing user expectations and providing a seamless experience can be demanding.
8. Training Cost - This cost is not only in terms of AI training, but human employees might need training to understand how to interact with AI systems effectively. This learning curve can impact initial efficiency and productivity.

Pitfalls

Artificial Intelligence is a fascinating concept, and most firms will find it exciting to jump on the bandwagon. However, these are some of the pitfalls that the firms might face after implementing AI into their business operations.

1. Homogenization of firm strategies – Since ChatGPT learns from previous data and gives a particular outcome to go ahead; it may offer the same solution to different firms. This might occur especially when all the data points have not been fed to the AI model. This might result in all the firms in the industry using the same strategies.
2. Lack of innovative solutions – Currently, AI models are being trained on previously available data. This means that only those solutions which have been implemented earlier will be suggested by AI models. This will hamper business innovation and creative solutions.
3. Fear of Missing Out (FOMO) – This AI race might create fear amongst the business that their competitors are investing in the latest technology, and this will reap greater benefits. However, businesses must realize that without a proper business strategy, the latest technology will not make any progress on its own. Due to FOMO, they might even invest in technology that has no tangible benefits to their business or might invest more than the actual revenues realized by that AI model. To mitigate this, we have

proposed a framework in the ‘Strategy Execution and Implementation’ section of this report.

4. Regulatory problems – While some countries like Italy, Ukraine, North Korea, China etc. have banned ChatGPT at various points in time (*Ijaz, n.d.*); different industries and many governments have not yet taken any stance on the use of AI. Once the regulations kick in, it might be difficult for the firms to switch back to normal operations.
5. Lack of human oversight and human touch – Relying completely on AI will cause problems for businesses while having customer interactions. This will impact the personalized and empathetic aspect of customer service. Relying completely on AI will also lead to errors and misunderstandings. So, human intervention should be ensured to ensure accurate and appropriate responses.
6. Vendor Lock-in – This is true not only for AI but other technological outsourcing as well. Once the firms start using a particular vendor’s model, there might be high switching costs, particularly due to integration and compatibility issues.

After most of the consulting firms begin to adopt ChatGPT-based models for their operations and advise their clients on the same as per the above framework & after giving a thorough thought to the pitfalls and challenges; the obvious question one would ask is what will happen to the future of the industry. Based on our research and experience, we discuss the future trends and possibilities in the next section.

AI's impact on the future of consulting

Impact of AI on hiring characteristics of management consulting firms

While the influence of AI on hiring traits and promotion categories in the management consulting business has not yet fully materialized, we believe that the following changes are likely to occur in consulting based on our research:

- **Emotional Quotient (EQ) and Soft Skills:** As artificial intelligence (AI) progresses, it may be able to handle regular activities that formerly required human intervention. This could result in a shift in hiring characteristics, with management consulting firms prioritizing applicants with critical emotional intelligence and soft skills. Clients frequently favor consultants who can empathize, communicate well, and develop strong relationships, which is where human consultants still outperform AI.
- **Problem-solving and Analytical Skills:** AI and automation are well-suited for data analysis and numerical crunching. As a result, consulting firms may place a greater emphasis on candidates' problem-solving abilities as well as their ability to comprehend and make strategic judgments based on complicated data. The emphasis may change from simply having a high IQ to effectively harnessing that ability in problem-solving circumstances.
- **Domain Knowledge and Industry Expertise:** While AI is capable of processing massive volumes of data, it may not always completely comprehend the context and intricacies of specific industries. As a result, consulting companies may continue to recruit candidates with deep domain knowledge and competence in areas of specialization.
- **Client-Facing Skills:** Even at the beginning level, clients may expect consultants to not only give data-driven insights but also to effectively convey and articulate these results. This could result in a greater emphasis on communication, presentation, and customer relationship management abilities when hiring and promoting employees.

AI's influence on administrative and project management in management consulting

There is no doubt that AI will revolutionize how the consulting industry operates. As with any technological advancement, jobs that do not require much sophistication are more likely to be automated away. Here, tedious administrative and PMO-related (Project Management Office) tasks that consume a substantial portion of consultants' and their assistants' time can be transformed. We've identified the following impacts on consultants' administrative and PMO-related work:

- **Automating monotonous tasks:** Artificial intelligence can automate repetitive administrative and project management duties, such as scheduling meetings, managing documents, and monitoring progress. This allows consultants to concentrate on strategic and value-added work. For instance, chatbots powered by AI can answer basic

queries and provide project updates, which could in some cases, replace executive assistants.2023 (Nieto-Rodriguez)

- **Project Management and Resource Allocation:** By analyzing historical project data, resource allocation, and team performance, AI can optimize project management. This may result in improved project planning and execution. It can analyze further the skills, expertise, and availability of a consulting firm’s team members. AI can propose optimal resource allocations to ensure that the right people are assigned to the proper duties by matching individual capabilities with project requirements. This reduces the likelihood of resource constraints and suboptimal staffing levels, thereby enhancing the project’s overall efficiency.
- **Post-project monitoring of savings:** In niche consulting firms, automation and AI-driven tools are transforming the function of savings monitoring teams. The efficacy and precision of automated tracking systems impact these teams, which are responsible for monitoring cost-saving initiatives. Tools propelled by AI can process large volumes of financial data, identify opportunities for cost reduction, and provide real-time updates, resulting in enhanced cost optimization strategies and data-driven insights. While automation increases productivity and decreases expenses, human oversight is still necessary for validation, interpretation, and personalized client interactions. The evolution of savings monitoring teams towards a hybrid approach that combines automation and human expertise enables niche consulting firms to provide their clients with more efficient, data-driven, and valuable services.

AI’s impact on the nature of cases

We anticipate that the nature of cases will change because of the new competencies that companies and clients will be able to rapidly acquire because of tools like ChatGPT, given that such devices have already been proven to demonstrate a partial understanding of business problems as demonstrated by their ability to take **MBA-level tests**. 2023 (Kessenides, 2023)

On the other hand, change **will not be linear**, and we believe such change will be **different in the short and long run**.

In the immediate term, we expect management consulting firms to focus on introducing new client capabilities and building integration components with generative AI tools. This is primarily focused on developing new competencies and enhancing the customers’ overall operational effectiveness, which closely coincides with Turner’s (2023) top purposes for a management consulting firm. We believe that firms are already attempting to establish specific practice areas, and primers, such as the one developed by BCG (Candelon et al., 2023), as well as collaborations between Bain and OpenAI (Bain X OpenAI, n.d.), are early indicators of firms signaling expertise to clients.

In the long run, we believe that lower traditional purposes, such as providing requested information and solutions to a given problem, as defined by Turner (2023), will likely shift, and be addressed internally in client companies as tools to solve a lack of competency or

manager bandwidth. However, AI technologies may or may not cover esoteric or specialist businesses because most information is held in an informal network of experts that management consulting firms rely on. We also expect that such benefits will be visible in the long run because organizations and managers will need time to adjust to introducing such instruments and will begin substituting only after organizational approval. As we progress up the consulting purpose change indicated by Turner (2023), we predict that AI tools will have a more difficult time duplicating value adds and customer engagements.

AI's impact on the design, slide-making, and production team in management consulting

It is anticipated that AI will have a significant and transformative effect on the design, slide-making, and production teams in the management consulting industry, including firms such as Bain, BCG, and McKinsey. Some prospective AI influences on these factors are as follows:

- **Automated Generation of Slides:** Tools powered by artificial intelligence can automate the creation of slides, charts, and graphs. By analyzing data and content, AI can generate visually appealing and data-driven presentations, allowing consultants to focus more on analysis and strategic decision-making while saving considerable time. Microsoft has already announced plans to integrate OpenAI's ChatGPT with its premium office application. According to the experiences of the authors of this report, the production or creatives department performs comparable functions in MBB (McKinsey, BCG and Bain) organizations. Presently, the consultants are providing specific instructions to their respective production creative departments to improve the visualization of these presentations. In most of these top-tier organizations, the production/creative department is charged by case code; the advent of AI, can contribute to cost savings and increased consultant productivity.
- **Personalization and Customization:** AI can analyze client preferences, requirements, and past interactions to tailor slide content and recommendations to each client's particular needs. This customization can enhance the client experience and increase the efficiency of the consulting services.
- **Reports using Natural Language Processing (NLP):** AI powered by NLP can be used to extract important information from documents, reports, and client communications, making it simpler for consultants to rapidly collect pertinent insights and data for analysis. In such a scenario, many back-end sections of organizations, such as the Bain Capability Network and McKinsey Insights, could be at risk of job displacement.

Recommendations

According to the framework we have put forward after interviews and literature review, we can come up with the following recommendations and conclusions.

1. Firms wanting to implement ChatGPT in their operations should prioritize comprehensive due diligence before integrating ChatGPT into operations. Alternative AI solutions should also be checked to determine if ChatGPT is the best fit for their business. This diligent approach ensures informed decision-making and maximizes the value derived from AI integration.
2. Opt for a multi-tiered AI model approach based on task complexity, repeatability and the level of data privacy required. In cases where the need of AI is low due to low complexity or high repeatability of tasks, a simpler model which aligns with the task can do the trick. This approach not only conserves resources but also ensures optimal performance, avoiding unnecessary investment in advanced AI tools where simpler models suffice.
3. Consultants operate in a zone where data security is of utmost importance, and each assignment is unique in itself. In such circumstances, consultants should delegate the backend work like research and presentation making to AI. Like that done by tools like Gaama AI and PopAI. However, it is no substitute to the experts' knowledge and the relationships the partners have built over years.

At the same time the clients should be made comfortable about their data being used by a GenAI tool. In the case of high-security projects, if the clients are not comfortable, initially, an option to not use the AI tool can be given to the clients. With time, the adoption of AI is sure to increase.

4. While integrating ChatGPT, firms must make crucial and strict decisions regarding data privacy. These include but are not limited to establishing a robust data governance framework encompassing encryption, access controls, and compliance with relevant regulations. They should regularly assess data flow, identify vulnerabilities, and implement measures to ensure data privacy.
There should also be strict guidelines regarding which employees can actually access the data through the firm's internal GenAI model (protected through API) so that their data is private and is not used to train ChatGPT's AI model. They should also prioritize transparency with their customers, detailing data handling practices to foster trust in AI integration.

Conclusion

Artificial Intelligence, exemplified by tools like ChatGPT, can be a crucial junction in the evolution of the businesses today. Data gathered through primary research, including surveys and interviews, highlights the growing adoption of AI.

Though still in the nascent stage, most of the respondents have expressed satisfaction with the responses of ChatGPT. This means that in the near future, this technology has the potential to disrupt industries and businesses. However, even after this technology will get evolved the challenges identified, such as customization complexities, data privacy concerns, and maintaining response quality, highlight the importance of **careful consideration during the implementation process**.

Strategic collaborations of corporates with various language modelling tools signal the industry's acknowledgment of the AI tools and their transformative capabilities. By leveraging ChatGPT-like tools, Quantum Black and Bain's partnership with OpenAI; by using analytical prowess alongside human expertise, these alliances reflect a strategic promise for addressing complex business challenges.

The framework proposed for AI implementation in consulting offers a structured approach to task categorization, based on Security, complexity, and repeatability. This framework equips consulting firms with a strategic roadmap to deploy AI where it brings maximal value, while also providing alternatives for effective implementation. Such a framework **ensures that AI integration aligns with business goals** and fosters enhanced efficiency.

Anticipating the future, this paper envisions a nuanced transformation like business cases. While ChatGPT will increase a firm's capacity and operational effectiveness, its role will evolve in the long term. This may affect the way back office roles are carried out at the lower and middle levels of the organization. Furthermore, the impact of AI extends beyond operations to design, slide-making, and production teams. Automation of tasks and personalization capabilities offer managers more time for strategic analysis and decision-making. However, the **expertise and insights provided by human experts will remain irreplaceable**, particularly in specialized industries and projects demanding high Security.

In essence, this research emphasizes that the integration of GenAI tools like ChatGPT holds the potential to redefine the business landscape. By utilizing the current resources, addressing the challenges, and by implementing a well-thought strategy, firms can harness ChatGPT's power to improve their services, efficiency and deliver value to the clients.

The road ahead involves a delicate balance between technological innovation and preserving the distinct qualities of humans, to ultimately shape a new era in the world of business and management.

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