MKTG 8604

New Frontiers in Retailing: Magic and Logic

AI-Driven Transformation of Inventory and Supply Chain Management

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April 2023

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Executive Summary

AI-driven transformation of inventory and supply chain management will disrupt the industry by making it easier to optimize inventory levels and logistics networks, improving supplier relations, and reducing the manual work required to manage supply chains. AI will help companies better utilize data to inform decisions, reduce supply chain-related costs and improve the resilience of supply chains.

Introduction

In recent years, the retail sector has seen significant upheaval, notably in the area of supply chain management. Many retailers, like Amazon and Walmart, have taken advantage of the value of supply chain as a competitive advantage to rule their respective markets. The industry still has to overcome a number of obstacles, such as the variable cost of transportation, manual labor, managing inventory and flow of funds, low-tech adaptability, and complicated documentation.

Supply chain management is changing as a result of the introduction of new technologies including artificial intelligence (AI), machine learning (ML), the internet of things (IoT), robotics, blockchain, and autonomous vehicles (AVs). Particularly AI is transforming the retail sector by automating numerous supply chain operations, increasing their effectiveness, and enhancing the overall customer experience. Retailers can manage their suppliers, transportation, and warehouses more efficiently with the use of AI.

In three key areas—supplier management, transportation, and inventory and warehouse management—this paper focuses on how AI is revolutionizing retail supply chains. We examine the difficulties the sector is now facing and how AI can help. We also talk about the opportunities that AI offers in terms of better customer experience, lowering expenses, increasing efficiency, and developing new business models.

Thesis I

Inventory & Warehouse Management: AI has the potential to revolutionize supply chain management in the retail industry by improving forecasting accuracy, optimizing inventory management, and enhancing the delivery process. Machine learning algorithms can be used to predict and prevent supply chain disruptions, while robotic process automation can automate routine tasks in the delivery process to improve supply chain operations.

Inventory and Warehouse Management

Inventory and warehouse management used to be a labor intensive area with manual counting, documentation and no automation which made it error prone and provided limited visibility and data to optimize. Then the introduction of barcodes/RFID and robotics into warehouses improved the efficiency of the operations but to a limited extent. Today, we see semiautonomous warehouses just like the one Shein uses, or technology and AI solutions in the industry for inventory management to provide visibility and traceability, like the ones being offered by Focal Systems.

AI is transforming inventory and warehouse management by providing retailers with insights on ways to optimize inventory levels, predict demand, reduce waste, minimize stockouts and optimize storage. These insights include data features such as season demand, economic environment, supply chain status, in-house workers, and customer trends.

1a. Inventory management

Current trends we see that will shape the future of inventory management:

a) Predictive analytics can help retailers predict demand and optimize inventory levels accordingly, reducing the risk of overstocking or understocking
b) Machine learning algorithms can be used to analyze sales data and identify patterns that can help retailers make better decisions about inventory management
c) Natural language processing can be used to analyze customer feedback and identify areas for improvement in the product selection or inventory management processes
d) Retailers can use generative algorithms to generate synthetic data that simulates different scenarios, such as changes in demand, supply chain disruptions, or production delays
e) AI-powered sensors and tracking systems can provide businesses with real-time information about the location, condition, and status of their inventory to help businesses react quickly to changes in supply and demand

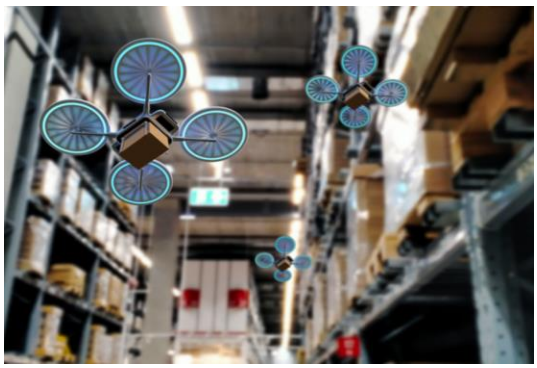
Combined, these can help retailers better understand the potential impact of different scenarios and make more informed decisions about inventory management and supply chain optimization.

For example, Target is using predictive analytics to optimize its inventory levels and reduce waste, resulting in cost savings of up to $1 billion. Macy's is also using machine learning algorithms to analyze sales data and optimize its inventory management processes.

1b. Warehouse management

Ways AI is transforming warehouse operations in the short and long term:

a) Warehouse automation robots can be used to stack and store products in a facility automatically. The picking, stacking, and storing of products can be accomplished by automated machines that place items according to a complex algorithm that considers the ease of access to the product, frequency of purchase, expiration dates, and many other factors. Some retail giants such as Amazon, Coca-Cola, and Alibaba have already started investing in technologies towards complete warehouse automation.
b) Automated vehicles are replacing human-driven ones like forklifts in the warehouse. Small carts that come equipped with 3PL systems or warehouse management software are one example. Smart trucks that can help with parcel management or surveillance are another.
c) AI algorithms can analyze the movement of goods within a warehouse and recommend optimal layouts for storage and picking processes. This can reduce the time and distance required to move goods, improving efficiency and reducing labor costs.



Some key industry players operating in this space include Focal Systems and Warp

a) Focal systems: Uses computer vision and ML to provide AI-powered solutions for grocery retailers, including real-time inventory management, shelf monitoring, and predictive ordering
b) Warp: Uses ML algorithms to analyze data from across the supply chain to provide solutions for demand forecasting, inventory optimization, and supplier management

Artificial intelligence is revolutionizing inventory and warehouse management, enabling retailers to optimize inventory levels, predict demand, reduce waste, minimize stockouts, and streamline storage. The rapid increase in labor costs (approximately 30%) enhances the return on investment for adopting AI technologies, which can reduce operational expenses by 5-10% per

store through automation, subsequently decreasing labor wages and training costs. The exceptional growth of Focal Systems, at around 400% per year, demonstrates the high returns that AI-driven solutions offer to retail companies. Pioneers in the industry, such as Walmart, Fairway, and Piggly Wiggly, have already embraced AI in their operations, setting the stage for a more efficient and cost-effective retail landscape.

While the trends look promising and adoption of AI in retail inventory and warehouse management is growing rapidly (35% of retailers are already using AI for demand forecasting, and another 30% plan to adopt the technology within the next two years), below are some of the challenges we foresee:

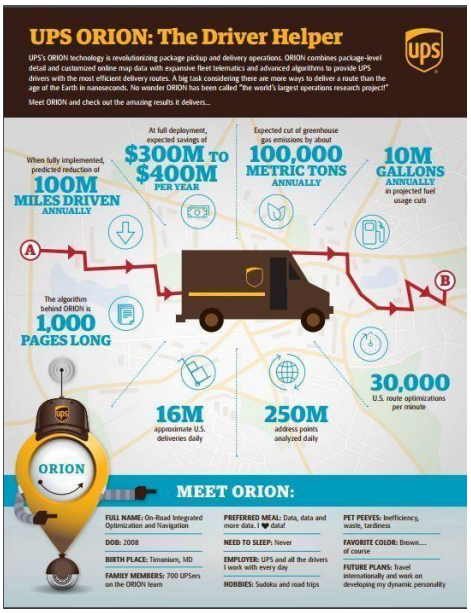
a) Fear of worker displacement: Retailers have concerns that adopting AI will displace employees. However, it's become clear that AI — at its current stage — will likely serve as a supplement for human work. It has yet to reach an advanced level capable of eliminating the need for people.
b) Data security: AI systems require massive amounts of data to function properly. Retail information is generated across multiple platforms and sources, making it difficult to clean, store and analyze to gain insights. Lacking a dedicated IT team or employees with deep knowledge of AI can be a major barrier to AI implementation for retailers.
c) Employee skill gap: AI is still in its infancy, and most of the workforce has little to no information about it. They don't understand its potential, how it works, how to maintain AI-based solutions. Retailers may not be able to succeed with AI solutions without enough employees who have strong knowledge of AI and its inner workings

Thesis II

Transportation and logistics: AI is beginning to reshape the traditional retail supply chain model by enhancing route optimization and enabling a more customer-centric approach with greater personalization and on-demand fulfillment. While the current impact of AI on delivery processes may be less significant compared to its influence on inventory management, further developments in AI and machine learning technologies promise to substantially improve efficiency, reduce transportation costs, and boost customer satisfaction in the long run by integrating self-driving cars and drones. The traditional retail supply chain, characterized by rigidity and inflexibility with extended lead times and restricted customization options, will gradually evolve as AI-driven solutions become more prevalent.

Transportation and logistics

Delivery is a crucial part of the supply chain, and the use of AI and ML technologies can significantly improve its efficiency, reduce transportation costs, and improve customer satisfaction. However, challenges such as regulatory and safety concerns, cost-effectiveness, and data management need to be addressed.



Real-time route optimization using AI and ML can help retailers reduce transportation costs, improve delivery times, and increase customer satisfaction. For instance, UPS has successfully used the ORION system to optimize its delivery routes and reduce transportation costs by $400 million annually while decreasing the distance its drivers travel by 100 million miles, reducing fuel consumption and carbon emissions.

Predictive analytics using AI-powered algorithms can help retailers optimize their delivery operations by ensuring that they have the right amount of inventory in the right location at the right time. Walmart's Spark Delivery program uses predictive analytics to predict which products customers will order and when they will order them, which helps Walmart optimize its inventory levels and delivery routes, reducing transportation costs and improving delivery times.

Delivery drones and robots are becoming increasingly popular in the retail industry due to their ability to optimize last-mile delivery, save time, and reduce transportation costs. However, there are potential challenges and limitations such as regulatory and safety concerns, cost-

effectiveness, and their usage may be limited in certain areas or conditions. Despite these challenges, the potential benefits of AI and ML in last-mile delivery are significant, and companies that are able to overcome these challenges are likely to see success in the future. Companies like Amazon and UPS have already started using delivery drones and robots for last-mile delivery. Amazon's Prime Air is a delivery system that uses drones to deliver packages to customers in under 30 minutes. The system is still in its testing phase, but Amazon plans to launch it in the future. Similarly, UPS uses a delivery robot called the UPS Nuro to deliver packages in some neighborhoods. The Nuro can carry up to 500 pounds of cargo and navigate

through roads and pedestrian walkways.

In the next 10 years, we can expect to see even more advanced AI and ML technologies being used in last-mile delivery. Real-time route optimization and predictive analytics will become more accurate and sophisticated, and retailers will be able to make more data-driven decisions about their logistics operations. Delivery drones and robots will become more common, and their usage may expand to new areas and conditions. However, challenges such as regulatory and safety concerns, cost-effectiveness, and data management need to be addressed to fully realize the potential benefits of AI and ML in last-mile delivery.

To sum up, artificial intelligence is already playing a crucial role in the delivery process through route optimization, as utilized by leading retailers like Walmart and Amazon. The integration of self-driving cars, delivery vehicles, and drones can significantly enhance efficiency, reduce transportation costs, and improve customer satisfaction in the long run. Trials of autonomous vehicles, such as Cruise in San Francisco and Google in Arizona, as well as Starship delivery buggies in Redwood City and Walmart drones in Texas, indicate a growing interest in these technologies. However, public acceptance of drones has been hindered by privacy concerns, and their high cost per trip and capital expenditure currently limit their return on investment compared to traditional delivery methods. While it may take 20-30 years for drone deliveries to become financially viable and socially accepted, the further development of AI and machine learning technologies promises to revolutionize the delivery industry.

Thesis III

Supplier Management: AI can help companies manage their suppliers more effectively by analyzing supplier performance data, identifying potential risks, and making recommendations for improvement. With the help of AI, companies can analyze a wide range of supplier data such as lead times, quality control data, delivery schedules, and production schedules. AI algorithms can also monitor news feeds and other external sources to identify potential risks such as natural disasters, geopolitical instability, and economic changes that could impact supplier performance. Based on this data, AI can provide real-time insights and recommendations to help companies make informed decisions about supplier selection, negotiation, and management. For example, AI can provide recommendations on which suppliers to use based on past performance and their ability to meet specific quality, cost, and delivery requirements.

Supplier Management

Major retailers utilize various methods for managing their suppliers, which include traditional procurement processes, supply chain management software, and cutting-edge technologies. The conventional procurement processes involve multiple stages, such as identifying potential suppliers, issuing proposals, evaluating proposals, and contract negotiation. While traditional approaches can be effective, they can be time-consuming, and real-time insights into supplier performance and other critical metrics may not always be possible. Therefore, big retailers are constantly seeking to improve their supplier management processes. Going forward, cutting edge technologies such as AI, will have a more prominent effect in the supplier management processes. AI can help companies manage their suppliers more effectively by analyzing supplier performance data, identifying potential risks, and making recommendations for improvement. Therefore, it can help retailers reduce inventory costs, minimize stockouts, ensure products are always available for customers, negotiate better pricing and contract terms, and simplify the complexity of supplier relationships. Moving forward, machine learning, predictive analysis and conversational AI will be leading players in supplier management for big retailers.

The use of machine learning can greatly enhance the supplier management capabilities of large retailers in many ways. By implementing predictive analytics, historical supplier data can be meticulously analyzed to predict future supplier performance, enabling retailers to take proactive measures to minimize risks. Additionally, demand forecasting can help retailers manage inventory levels more efficiently and collaborate with suppliers to meet customer needs by analyzing customer data to identify patterns in product demand. Quality control can also be improved by analyzing product data to identify potential quality issues, allowing retailers to work closely with suppliers to improve product quality and minimize product returns. Moreover, machine learning algorithms can assist with supplier selection by scrutinizing supplier data to identify the most reliable and cost-effective suppliers, leading to better decisions and improved

contracts. Also, analyzing communication data using machine learning algorithms can help retailers identify areas where communication can be improved with suppliers to establish stronger relationships.

Retailers can leverage predictive analytics to optimize their supply chain management by identifying the optimal time to order products from suppliers. By analyzing demand forecasts, lead times, and supplier performance, retailers can reduce inventory costs, minimize stockouts, and ensure that products are always available for customers. Additionally, machine learning algorithms can be used to analyze supplier data and identify patterns that can help retailers negotiate better pricing and contract terms. Natural language processing can also be used to analyze supplier contracts and other unstructured data sources to identify potential risks, such as non-compliance with regulations or unexpected price increases. In the retail industry, it is important to manage supplier relationships effectively to ensure that products are delivered on time and at the right price. Coca-Cola, for example, is using machine learning algorithms to analyze supplier data and identify patterns that can help the company negotiate better pricing and contract terms. By analyzing supplier data, Coca-Cola can make more informed procurement decisions and reduce costs. Walmart, one of the largest retailers in the world, is also using predictive analytics to optimize its procurement processes and reduce inventory costs. By analyzing data from suppliers and other sources, Walmart can cmake data-driven decisions and reduce costs while improving customer satisfaction.

Conversational AI, through its natural language processing and machine learning algorithms, has the ability to automate manual data entry and order processing, improve communication with suppliers, and provide efficient procurement processes. It can also aid in image and voice processing, making it easier to manage inventory and track sales. One of the most significant benefits of conversational AI is its ability to simplify the complexity of supplier relationships, which can be a pain point for many retailers. With numerous suppliers and various products, it becomes challenging for retailers to track all the different relationships and agreements. Conversational AI can address this issue by providing a single point of contact for all supplier communication. For instance, a retailer can use a chatbot powered by conversational AI to manage their supplier relationships. The chatbot can be programmed to answer common supplier inquiries such as order status or inventory levels. It can also be integrated with other systems such as procurement software and inventory management to provide real-time updates and alerts. By automating manual data entry and order processing, conversational AI can save time and improve efficiency. For example, a retailer can allow suppliers to place orders through a chatbot, which can

then process the order and update the inventory in real-time, reducing the need for manual data entry and improving order accuracy.

Conversational AI can also aid in image and voice processing, making it easier to identify and categorize products, manage inventory, and track sales. Voice processing technology can be utilized to transcribe and analyze supplier calls and meetings, providing insights into supplier performance and potential areas for improvement. One real-life example of a company using conversational AI for supplier management is PepsiCo. In 2020, PepsiCo partnered with Hugging Face, a conversational AI platform provider, to develop a chatbot called "Pep" that could help streamline communication with suppliers. The chatbot, powered by natural language processing and machine learning algorithms, handles various supplier inquiries, including order status, delivery dates, and product availability. The chatbot also provides real-time updates on inventory levels, helping suppliers better manage their own supply chains. PepsiCo reported that the chatbot has reduced the time and resources required to manage supplier relationships while improving communication and collaboration between PepsiCo and its suppliers, leading to greater efficiency and better business outcomes.

Presentations

Industry Expert Mentor: Francois Chaubard – CEO of Focal Systems

AI-Driven Transformation of Inventory and Supply Chain Management

Problem statement

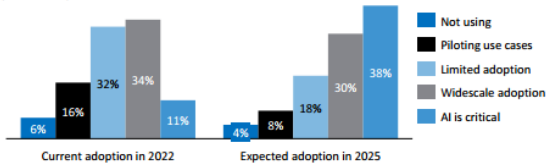
Retailers face **supply chain challenges** amid shifting competition and external pressures. To stay ahead In the game, they are trying to find ways to **improve supply chain resilience, agility, and decision-making in the long-run**

Executive summary

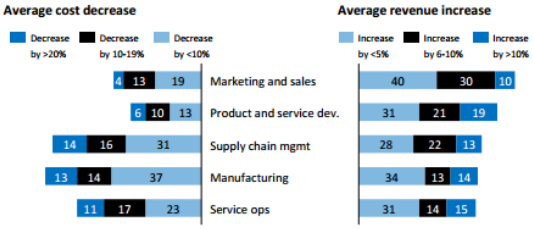
AI-driven transformation of inventory and supply chain management will disrupt the industry by making it easier to **optimize inventory levels** and **logistics networks, improving supplier relations,** and **reducing the manual work required to manage supply chains**. AI will help companies **better utilize data** to inform decisions, reduce supply chain-related costs and improve the resilience of supply chains.

Current AI use and impact

Adoption of AI in retail and manufacturing supply chains
(% of total)



Cost decrease and revenue increase from AI adoption
(% of respondents, per function)



• SOURCE: MCKINSEY Global AI Survey, Statista AI Adoption for supply chain and retail businesses survey

Industry Expert Mentor: Francois Chaubard – CEO of Focal Systems

Key areas and industry developments

Inventory and Warehouse Management

AI is transforming inventory and warehouse management by providing retailers with insights on ways to **optimize inventory levels, predict demand, reduce waste, minimize stockouts** and **optimize storage**

- AI reduces the need for labor which is a cost rapidly increasing (Increase in labor cost per hour (~30%) directly increases ROI of technologies)
- Automizing inventory management leads to ~5-10 % decrease in opex per store (through decrease in wages and training costs)
- Focal systems growth (~400% per year) is a sign of high return for retail companies
- Walmart, Fairway, Piggly Wiggly are the pioneers in the retail industry

Delivery

AI is already a part of delivery processes through route optimization. However further use of AI and ML technologies can significantly improve its efficiency, reduce transportation costs, and improve customer satisfaction by **leveraging self-driving cars and drones in the long-run.**

- Route optimization already in use by leading retailers (Walmart, Amazon etc.)
- Trial of self-driving cars and delivery vehicles have been approved by multiple states (e.g. Cruise in SF, Google in Arizona, Starship delivery buggies for Redwood City, Walmart drones in Texas) but the drones have not been accepted by the public due to privacy concerns
- Drones does not have high ROI yet due to high cost per trip and CAPEX against traditional delivery (~$20 for drones vs $3 for Instacart) and it is not expected to be financially viable and socially acceptable for the next 20-30 years

Supplier Management

AI can help companies manage their suppliers more effectively by **analyzing supplier performance data, identifying potential risks, and making recommendations for improvement**

- Focal System's AdaPOG adapts individual store POG's to shifts in demand/supply automatically to grow sales with less labor automatically increasing sales by 3%, and EBITDA by 5%
- Fairway, Piggly Wiggly are pioneers in usage of AI in supplierand demand management currently
- Experts believe when AI gains the capability of managing supplier management and price negotiations, an additional ~5% increase in EBITDA will be possible

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EDUCATION

COLUMBIA BUSINESS SCHOOL — New York, USA
MBA, Technology and Entrepreneurship — 2021-2023
Leadership: VP of Internal Partnerships for Columbia Entrepreneurs Organization, VP of Events for Spirits Club
Member: Technology and Data Analytics Association

MIDDLE EAST TECHNICAL UNIVERSITY — Ankara, Turkey
Double Major; **B.A,** in Business Administration; **B.S,** in Industrial Engineering — 2012-2018
Honors: High Honor student
Study Abroad: Claremont McKenna College & Pomona College (Spring 2016)
Internships: Deloitte Touche Tohmatsu (M&A Intern), Turkish Aerospace Industries (Project management Intern)

EXPERIENCE

BLACKROCK — New York/ San Francisco, USA
Fixed Income COO Summer Associate — Summer 2022

- Mapped the investment processes and identified areas for improvement in terms of risk and efficiency for 8 fixed income desks through collaborating with +25 stakeholders
- Developed automated processes for legal reporting requirements for fixed income ETF's that hold mortgage-backed securities

MCKINSEY & COMPANY — Istanbul, Turkey
Business Analyst — 2018-2021

Digital Businesses

- Developed the market entry strategy and value proposition for digital mobile virtual network operator for Turkey's leading Telecom player for two different international markets; defined the overall market size, analyzed regional consumer trends and competitors for MVP
- Assessed infrastructure, consumer preferences, and competitive landscape for payment platforms across 4 developing countries and identified the most suitable technology to establish a new product for a leading financial technologies company in Turkey with overseas operations
- Conducted the operational due diligence of an online grocery player in Turkey for a major US-based PE leading to a +500 M USD investment

Consumer Goods & Retail

- Identified and realized 7-10% efficiency improvement by developing opportunities for top-line growth, implementing cost initiatives, and designing new budgeting and spend tracking methodology for categories ranging from marketing to maintenance for 3 subsidiaries of one of the biggest conglomerates in Turkey
- Diagnosed the current cost structure and identified ~6% cost-saving potential for one of the largest dairy & meat producers in Turkey through implementing a cost transformation and product portfolio optimization diagnostic program
- Identified organic and inorganic growth opportunities or a leading Food and Beverage player in Middle East for achieving X5 growth in EBITDA in 10 years

Other

- Tailored exhaustive business cases, financial models, and tender guidelines from scratch for 2 new major hospitals and 2 schools for the disabled as public-private partnership projects for a government institution in MEA that will provide social infrastructure for thousands of residents when implemented
- Led commercial and production efficiency initiatives in a major transformation project for a leading petrochemical products producer in Turkey. Created over 10M USD impact through identifying sales-boosting opportunities and implementing energy efficiency levers

ADDITIONAL INFORMATION

Volunteer work: Among the leaders of McKinsey's social responsibility initiative in Turkey office
Technical Skills: Tableau, Python, SQL
Languages: Turkish (native speaker); German (pre-intermediate)
Interests: Passionate about traveling, cooking Mediterranean food, mixology and F1

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EDUCATION

COLUMBIA BUSINESS SCHOOL — New York, NY
MBA, May 2023 — 2021-2023
Leadership: VP Management Consulting Association, VP Spirits Club
Pangea Advisors (Social Enterprise Consulting): Customer acquisition strategy and financial model for Techademics (Botswana), Pricing analysis and social impact assessment for Madda Studia (Oaxaca, Mexico)

MUMBAI UNIVERSITY — Mumbai, India
Bachelor of Engineering (B.Eng.), Information Technology, May 2017 — 2013-2017
Honor: Graduated top 5% in a class of 160; Dean's List; Dean's Leadership Award; Ambassador Award (academic and extracurricular excellence; 6 recipients out of a 620-student cohort)

EXPERIENCE

MCKINSEY & COMPANY — London, UK
Summer Associate — 2022
- Commercialized an AI-powered drug discovery platform for a $150B French pharma company through strategic collaborations with 30+ key stakeholders; onboarded a robust ecosystem of healthcare players to realize platform's value proposition
- Conducted market research on the impact of AI on traditional drug discovery for client thought leadership

ERNST & YOUNG (EY) — Mumbai, India
Consultant, Business Consulting (2020-2021) — 2019-2021
Managed teams of 6 analysts in the following select projects:
- Developed a predictive AI-backed dynamic workflow for an Islamic bank (Abu Dhabi), achieving 66% reduction in effort across compliance and risk functions through process deep dives, stakeholder interviews and peer benchmarking
- Optimized data architecture for regulatory reporting for a financial lender (India), reducing person-hours spent by 70% and increasing accuracy of submissions by 30% for 104 mandatory reports
- Set up a new geographical location for a leading multinational bank, hiring and training 90+ employees, defining KPIs and ensuring 95% compliance with set KPIs; liaised with 30 different stakeholders and vendors across London and India

Associate Consultant, Business Consulting (2019-2020)
- Conducted cross-business feasibility study for a global bank (U.K.), including peer benchmarking and assimilating views from market and regulatory experts, enabling the institution to set up a branch at a new international exchange in India
- Created 6 deal-winning proposals, resulting in ~$1.5MM contract value for the firm
- Received Staff Recognition Award, Client Spotlight, Spot Recognition, and EY Values Award (awarded to top 1% of consultants)

LASERTRON ENTERPRISE SERVICES — Mumbai, India
Boutique business process outsourcing and information technology company — 2018-2019
Strategy and Operations, Office of the CEO
- Created and presented go-to-market strategy for expansion into two new cities (Pune and New Delhi) to CEO, covering value proposition and a three-year business plan, which led to the opening of two new offices generating ~$500K in revenue in Y1
- Managed a two-month pilot project to establish a new staffing model for 800 employees resulting in cost savings of $300K

PRICEWATERHOUSECOOPERS (PwC) — Mumbai, India
Senior Analyst, Consulting — 2017-2018
- Advised $50B AUM PE fund (Hong Kong) on the IT standing of a legal service provider (USA) in an acquisition valued at $500MM; due diligence included software IP and IT policy verification and budget projection validation
- Collaborated with New York and London-based heads of business transformation of a leading European investment bank to realize efficiencies across localized outsourcing processes, achieving ~60% reduction in processing time

ADDITIONAL INFORMATION

Volunteer Work: Led an impact assessment to direct $150K funds towards women's health at Being Human Foundation (India)
Interests: Founded a single-malt social club (Mumbai); co-authored food blog inspired by critic A.A. Gill (Mumbai)
Work Authorization Status: STEM MBA (three-year OPT eligible)

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EDUCATION

COLUMBIA BUSINESS SCHOOL — New York, NY
MBA, May 2023 — GMAT: 760 — 2021-2023
Member: Columbia Women in Business, Green Business Club, Social Enterprise Club
Pangea Project: Pro-bono consulting project for an EdTech company

KOC UNIVERSITY — Istanbul, TURKEY
BS, Industrial Engineering, June 2018 — GPA: 3.83 — 2013-2018
Double Major: Business Administration
Track: Supply Chain Management
Honors: summa cum laude, Vehbi Koç Honor Award for 6 semesters
Study Abroad: Michigan State University, Exchange Program at Broad College of Business

EXPERIENCE

LEAF LOGISTICS — New York, USA — Summer 2022

Product Marketing MBA Intern (Summer 2022)
- Conducted market research to identify key trends and challenges in the logistics and transportation industry, identified key competitors, products, solutions and potential partners in the market
- Identified growth levers, potential product extensions and other opportunities for the next 5 years
- Aided in marketing materials development

BOSTON CONSULTING GROUP — Istanbul, TURKEY — 2018-2021

Senior Associate (2020-2021)
- Constructed portfolio vision and strategy for a leading Turkish conglomerate by assessing financial data, conducting management interviews and company specific workshops
- Built organization and governance structure for an industrial conglomerate in Turkey
- Developed digital growth strategy for a consumer finance company in Middle, studied customer pain points and market trends, created user journeys, and organized management workshops

Associate (2018-2020)
- Performed logistics cost optimization project for a Turkish cement manufacturer to reduce cost base by 20%, determined levers through site visits, user interviews, expert interviews and benchmarking
- Designed a market research study for an international consumer goods company to gain insights on customer preferences and needs and to identify growth opportunities accordingly
- Devised a country-level development plan for a leading industrial organization in Turkey, identified solutions for economic advancement and educational development, examined country level data in comparison with other countries, executed interviews with scholars, experts, and business leaders
- Created a 3-year strategy for the LTL business unit of a leading Turkish logistics company to increase EBITDA by 10%
- Devised a strategy workshop for a leading insurance company in Turkey focused on digital growth opportunities
- Developed strategic project portfolio for development of a city in the CIS by discovering citizen pain points through surveys, performing field trips, prioritizing improvement areas, coordinating different governmental departments, architecture firms and utility companies, reviewing global trends and best practices to develop strategic projects
- Designed country-level private pension system strategy, analyzing customer data, conducting social media analysis and interviews with employers, employees, managers of insurance and investment companies and government officials to understand stakeholders' pain points, benchmarked 15+ countries to identify best practices
- Aided in strategy development for the Procurement Department of a large European bank

ADDITIONAL INFORMATION
Volunteer Work: Tutoring for Managerial Accounting in Koc University, working with Syrian refugees in Turkey as part of KuGlobalAid, volunteer work in Bali focusing on developing solutions in sustainable tourism and organic farming through human-centered design with DSIL Global
Languages: Native in Turkish
Interests: Entrepreneurship, social impact, human-centered design, snowboarding, dancing

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