

**NBS EMBA INTERNATIONAL STUDY TOUR: ALTINBAS UNIVERSITY
AND TURKISH AEROSPACE**

FINAL YEAR PROJECT REPORT

A report submitted in part fulfillment of the degree of EXECUTIVE-MBA



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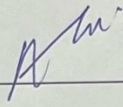
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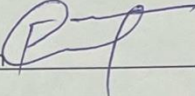
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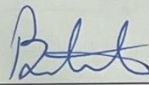
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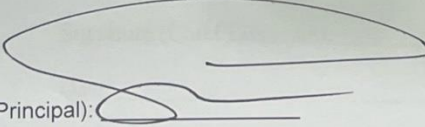
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Executive Summary

A recent 10-day international trip to Turkey offered a rich blend of academic and industrial experiences, centered in Istanbul and Ankara. Istanbul and Ankara served as the main hubs where I combined work and leisure with great international experiences. My stint at Altinbas University in Istanbul allowed me to participate in a set of lectures that improved my understanding of business practices. I learned methods such as marketing human capital, ethical AI practices in business, and the financial aspects of managerial intelligence. We focused on the ways marketing in the business world is altered in the context of modern-day AI technology and the importance of finance to nurture talent and grow a skillset. Furthermore, we tackled the question of AI enhancing productivity and the ethicality of bias, transparency, and other greater issues, showcasing the dire need for perishability and ethical AI technology.

All of these discussions were further bolstered by our visit to Turkish Aerospace in Ankara. We presented some of the more sophisticated methods of manufacturing. In particular, we were taken around the production lines of drones and aircrafts to see the company's AI and automation usage in production. Turkish Aerospace's reputation as a globally competitive brand in the defense and aerospace was further solidified after this visit. The comparison with the aerospace industry of Pakistan underscored the necessity of investing in local technology to fuel development and creativity.

The trip was illuminating in terms of learning about Turkish culture, which was accentuated by the wonderful archetypal lunch offered by Turkish Aerospace, which certainly gave us a taste of Turkish hospitality. The trip was well structured in terms of pedagogy, for it blended the theoretical lessons taught in school and actual exposure to an industry, which helped us understand the nuances of innovation, the ethics involved, and the role of international cooperation in business and technology.

Table of Contents

Introduction	1
Report on the International Trip to Turkey (September 7-16, 2024)	1
Section 1 – Turkey	3
A Warm Welcome at the Altinbas University	3
Overview of the Academic Engagement at Altinbas University	4
Chapter 2 – Lectures – Altinbas University	5
Day 1	5
Pictures From Day 1	8
Day 2	9
Pictures From Day 2.	11
Chapter 3 – Turkish Aerospace.....	13
Visit to the Assembly Lines.....	15
Technological Contributions and Industrial Impact	16
1. History and Development	17
5. Industrial and Strategic Significance.....	20
Lunch at Turkish Aerospace	22
Chapter 4 – Lesson Learnt.....	23
Cultural Exploration in Istanbul	23
Hagia Sophia.....	23
Blue Mosque (Sultan Ahmed Mosque)	24
Topkapi Palace.....	25
Grand Bazaar	26
A Holistic Experience.....	28
Objectives of the NBS EMBA International Study Tour: Altinbas University and Turkish Aerospace	31
Enhancing Global Awareness and Cultural Understanding.....	31
Integrating Theory with Practical Experience	31
Exploring Industry Innovations and Best Practices	31
Fostering Networking and Professional Development.....	32
Developing Leadership and Strategic Thinking.....	32
Cultural and Historical Exploration	32
Conclusion	33

List of Figures

Figure 1 Day 1 Altinbas University	3
Figure 2 Altinbas Engineering Campus	8
Figure 3 Group Picture after Day 1 Session	8
Figure 4 Day 2 Discussions with the Instructor on the need for Data Privacy in use of Artificial Intelligence Models	12
Figure 5 Group Picture at Turkish Aerospace	14
Figure 6 Turkish Aerospace after visiting the Assembly Lines	15
Figure 7 Lunch at Turkish Aerospace	22
Figure 8 Visit to Hagia Sophia,	23
Figure 9 Blue Mosque (Sultan Ahmed Mosque)	24
Figure 10 Visit to Topkapi Palace	25
Figure 11 Visit to the Grand Bazar	27

Introduction

Report on the International Trip to Turkey (September 7-16, 2024)

This report encapsulates in detail our 10 day-long international tour and how it helped us in blending academia with industry domestically and internationally. The trip occurred between September 7 and 16, 2024, and it spanned over four days of formal work that included coursework at Altinbas University located in Istanbul and an industrial visit to the Turkish Aerospace in Ankara. All these activities offered to us the opportunity to scrutinize the correlation that exists between business theories and their implementation in one of the most vibrant economies of the region. The report is divided into four main sections in accordance with the different focal points of the trip.

The **first section** provides a summary of the trip, highlighting significant details and milestones achieved in a sequential manner. It captures the first arrival in Istanbul and the subsequent period of intensive classes at Altinbas University, where we had discussions with leading figures in the field about current problems in the business world. This section concludes with our trip to Ankara, where we visited the modern branch of Turkish Aerospace. It acts as an introduction to the wider aspects of the report and prepares the reader for a detailed analysis of each part.

Now we turn to the lectures given at Altinbas University, which took place over two intensive days. Each session was structured to tackle practical issues in contemporary business and provide participants with knowledge and skills to address them. The first lecture was titled “Marketing Magic: How Today’s Businesses Are Winning with Modern Strategies” and it focused on how businesses use new marketing techniques to stay competitive. The second lecture titled “Business Education and Financial Literacy on Human Capital Development” stressed the need to have educated and financially literate people to optimize productivity. The third lecture was “Ethical Considerations and Challenges in Deploying AI in Business,” which critically analyzed the ethical challenges that organizations face as they increasingly use AI for decision-making. Lastly, the lecture “Applications of AI in Automating Business Processes and

Decision Making” presented AI as a new technology that transforms how businesses operate, including automating processes and making decisions. In this section, we summarize the lectures and comment on their importance and usefulness in different business situations.

Shifting to the **third section**, the focus of this part is the industrial visit to Turkish Aerospace in Ankara, one of the pioneers in the defense and aviation industry of Turkey. This section narrates the organized tour of the facilities, which included observing the production and other technological activities that position Turkish Aerospace among the world leaders in the industry. The visit also allowed conversations with industry stakeholders concerning the company’s R&D activities, its contribution to the defense industry within Turkey, and the use of advanced technologies, including AI and automation. This was a very revealing visit in terms of seeing what can be done practically with the knowledge that was made during the coursework.

The **fourth and final section** summarizes the key takeaways and lessons learned from the trip focusing on implications of the trip both academic and industrial in nature. Knowledge gained from the trip is reflected in terms of how it can be utilized in achieving prospective professional roles especially in modern business practices, AI technologies, and ethics. Further this section also addresses the possibility of future collaborations between universities and businesses highlighting the need for ongoing learning in an increasingly complex global business environment. The information we acquired during the trip has increased our comprehension of modern business problems and has provided us with requisite tools for proactive dealing with the challenges of business and industry in the future.

Section 1 – Turkey

Our 10-day international trip to Turkey offered an extraordinary blend of academic study and cultural exploration. The intricate mix of academic work and international travel was encapsulated within the ten-day trip we took to Turkey, particularly with our time spent in the active city of Istanbul. We spent two days in an academic program at Altinbas University and the rest of the time exploring the rich cultural and historical landmarks as well as traditional cuisines the city had to offer. Istanbul is considerably important for having innumerable older and modern monuments right next to each other and having Asia on one side and Europe on the other.

A Warm Welcome at the Altinbas University

We, the students from the National University of Sciences and Technology (NUST), were at once received by the staff and faculty members of the university who took it upon themselves to welcome us.

Established in 2008 and located in Istanbul, Turkey, Altinbas University is a privately owned university. Even though this institution is relatively young, it has established itself in the business world due to its innovative approach towards education in business, law, engineering, and other important areas. The university is named after Mehmet Altinbas, a well-known Turkish businessman, which showcases how this institution prioritizes a broad outlook among its students with strong academic fundamentals and applicable skills. Altinbas University is well known for its modern campus, international collaborations, and strong focus on research and entrepreneurship which makes it a center for advanced education in Turkey. Because of this, the university is attracting students from many countries.



Figure 1 Day 1 Altinbas University

Overview of the Academic Engagement at Altinbas University

Our itinerary for the academic segment of our visit was anchored on a two-day intensive program at Altinbas University, which is well-known for its novel approaches to higher education, especially in business. The professors at the university lectured and conducted workshops that provided us with profound insights on contemporary business practices and technologies that are on the rise.

Our academic immersion began with a session titled “**Marketing Magic: How Today’s Businesses Are Winning with Modern Strategies.**” This lecture focused on modern marketing strategies which are changing the way companies interact with their audiences. We looked at some case studies of companies which were able to use digital technology and data analytics to develop sophisticated customer-oriented marketing campaigns. The lecture covered how important personalization, social media activity, and influencer marketing have become in fostering brand loyalty, and achieving competitive advantage in a fast-moving and crowded marketplace.

Next, we attended a session focused on “**Business Education and Financial Literacy in Human Capital Development.**” As previously discussed, financial education is associated with improved performance within an organization. Elevated levels of financial literacy can help a company in terms of improving decision-making processes across the hierarchical structure which in return enhances productivity and promotes innovative thinking. The speaker pointed out that financial literacy is not just about understanding figures; it is about making informed choices that can aid an individual's personal development as well as that of the organization. The discussion focused on how some companies are incorporating financial literacy into training programs to enable better productivity skills that allow for enhanced human resource management.

Another pivotal session addressed “**Ethical Considerations and Challenges in Deploying AI in Business.**” This discussion was interesting because it dealt with the moral issues companies encounter in employing technologies such as artificial intelligence. With the AI revolution, businesses are dealing with sophisticated privacy, bias, and accountability issues concerning decision making on hiring to customer services automation. The speaker offered examples of corporations which struggle with these issues and encouraged us to reflexively analyze the

ethical frameworks that govern responsible innovation – structures that seem almost antagonistic to advancement.

The final lecture of our academic engagement was titled “**Applications of AI in Automating Business Processes and Decision-Making.**” This session looked at how AI can impact businesses for the better by making their operations less complex. We encountered a wide variety of tools and platforms that AI literally powers which change the automated repetitive business tasks that companies do, including but not limited to, inventory management, customer care, and even advanced planning. The presenter highlighted certain businesses that successfully adopted AI, eliminating operational costs and simultaneously increasing accuracy and efficiency. The future of AI was another topic we touched on as it pertains to business as the aid it can give to C-level executives in terms of making accurate and rapid decisions based of complex data is limitless.

Chapter 2 – Lectures – Altinbas University

Day 1

First day at **Altinbas University** was invested into studying modern business practices concerning marketing and the role of modern technologies in it. The students learned how firms are changing their approaches to compete in an ever-increasing technology environment. Participants were taught how to apply marketing innovations and artificial intelligence (AI) to business processes as a practical business tool.

The first session of the day, titled "**Marketing Magic: How Today's Businesses Are Winning with Modern Strategies,**" introduced us to the dynamic world of marketing in today's digital landscape. This lecture focused on the rapid changes in consumer behavior, driven by technology, and how businesses are adapting their marketing strategies to meet these evolving demands. Key points covered in the session included:

- **Understanding Today's Market:** The conversation focused on the fact that companies need to adapt to changing customer preferences. Understanding market movements enables firms to put in place more tailored strategies for their stakeholders.
- **The Power of Social Media:** Platforms such as Facebook and TikTok are important for marketers as is Instagram. These platforms enable direct interaction with the clients which, in turn, assists in enhancing the business brand loyalty and visibility.
- **Content is Still King:** It was highlighted as the premise of contemporary marketing how engaging, valuable content should be created. Businesses are able to gain credibility and be considered authoritative in their domains with the help of quality content.
- **Personalization in Marketing:** Strong connections with the advertisement receivers which can result in higher conversion rates can be achieved through personalized marketing messages; this was illustrated in the session and the role by personalization was also explained.
- **Influencer Collaborations:** The rising importance of influencers in extending brand outreach was examined along with how businesses can collaborate with the appropriate influencers to access a specific audience.
- **Embracing Video Marketing:** Considering the data showing a rise in online video consumption, the session sought to unpack the ways in which YouTube and TikTok are being utilized for more engaging visual storytelling.
- **Data-Driven Decisions:** Analytics as well as the customer's behavioral data is vital in formulating a marketing plan that yields a positive return on investment (ROI). This was clearly the takeaway from the lecture.

The second session of the day shifted focus to "**Business Education and Financial Literacy on Human Capital Development.**" This lecture explored how education and financial literacy contribute to developing and optimizing human capital within organizations. Key highlights from this session included:

- **World Economic Forum's Growth Summit 2023 Insights:** We explored the key takeaways from the World Economic Forum's focus on human capital, where investing in skills and education was identified as crucial for businesses and economies to thrive in a rapidly changing world.
- **Skills for Growth and Resilience:** The lecture discussed how upskilling and reskilling are becoming essential as jobs evolve, with AI and automation disrupting traditional roles. The need for workers to adapt and continuously learn new skills was emphasized, particularly in high-demand areas like analytical thinking and AI literacy.
- **Financial Literacy and Economic Empowerment:** The significance of financial literacy was studied with conversations of how enhanced financial education could help individuals make better decisions in their personal and business lives. The lecture also discussed the surge of retail investing worldwide, with the importance of ensuring individuals possess the appropriate tools to meaningfully participate in capital markets.
- **Human Capital Development through Education:** The meeting underscored the significance of business education in shaping leaders, cultivating critical thinkers, and fostering innovation. As essential skills for most of today's business operations are anticipated to change within the next five-years, the session emphasized the importance of continuous learning and the ability to adapt to change.

Overall, **Day 1** The coursework at Altinbas University made it clear how marketing functions now and why it is essential to invest in human capital. Moreover, it emphasized the necessity for firms to be flexible, tech and data savvy, and creative in regard to their marketing strategies while providing education and fostering financial literacy to create a highly-skilled working class. This also provided a glimpse into the functions and processes of AI in business, which would be discussed in detail on Day 2

Pictures From Day 1



Figure 2 Altinbas Engineering Campus



Figure 3 Group Picture after Day 1 Session

Day 2

The Altinbas University delves deeper into ethics collage with artificial intelligence (AI) and business process automation by looking what challenges ethics poses for the rampant use of AI in modern business and the application of AI technology for achieving complex decision making and operational tasks within systems. This day tackled a more encompassing view integrating AI into business which is an additional knowledge gained from Day 1.

Generic session titled as “Ethical Considerations and Challenges in Deploying AI in Business” was presented by Dr Abdullahi Abdu Ibrahim, Assistant Professor, Altinbas University. This session tackled a paragraph that needs more attention, which is the ethical and moral logic that comes with AI utilization in business. Some of discussion points in this session consist of:

1. **Introduction to AI Ethics:** The session commenced with the discussion on how AI has impacted multiple industries such as healthcare, finance, and transportation. This transformation, however, raises a number of ethical dilemmas around bias, accountability, privacy, and transparency.
2. **Key Ethical Considerations:** The lecture detailed several critical ethical challenges, such as:
 - **Bias:** AI systems are capable of perpetuating societal biases derived from the data that it has been taught with, resulting in discrimination. For example, some hiring algorithms may give preference to specific groups whereas others are overlooked.
 - **Privacy:** AI has enabled firms to harvest large amounts of Private Information (PI) with minimal to no consent, which poses huge privacy concerns. Technologies such as facial recognition systems used in open places entails threats to personal privacy.

- **Accountability:** Determining the stake holder of the decision made by an ai system is one of the most complex ethical issues. Accountability becomes fuzzy when autonomous systems fail.
 - **Job Displacement:** The use of AI systems to automate processes has led to anxiety regarding unemployment especially in sectors that have monotonous tasks that are empty..
3. **Challenges in AI Deployment:** The hurdles businesses face in deploying AI ethically include inflexible business models, infrastructure needs, skill shortage, and data privacy and security issues. Case studies included an AI based recruitment system that showcased bias against women owing to pre-existing data, thus demonstrating the need for bias audits and AI system transparency..

The second session entitled “Applications of AI in Automating Business Processes and Decision-Making’ moved from talking about ethics to the practical use of AI in automating business processes. This session was once again presented by Dr Abdullahi Abdu Ibrahim, who gave an in-depth analysis on the impact of AI on business operations in terms of efficiency and decision-making processes.”

Key points from this session included:

1. **Introduction to AI in Business:** In this portion of the session, the participants discussed the relevance of artificial intelligence to human intelligence modeling and business functions such as natural language understanding, machine learning and computer vision. AI is increasingly utilized in business to automate functions, reduce expenses and enhance customer relations.
2. **The Evolution of AI in Business:** The class covered the historical evolution of business applications of AI starting from the techniques used in the early expert systems of 1990s till now with the advanced tools for business automation powered by AI. AI has grown in application scope now extending beyond customer support and fraud detection to even strategic planning in finance, health care, and supply chain management.

3. **AI in Business Process Automation:** In this segment, we examined how AI is automating mundane functions and activities across sectors like banking, HR, and supply chain management. Robotic Process Automation, for instance, is a commonplace adoption for intensive activities such as data entry, which increases precision and reduces expenses. It was pointed out that 78 percent of firms practicing RPA suggest having received increased operational effectiveness and lower mistakes.

4. **AI in Decision-Making:** AI has significantly improved decision-making throughout multiple levels of business operations. Companies can now analyze big data sets, thanks to AI tools that IBM Watson and Tableau provide, and make data-driven decisions faster and with more accuracy. Another key AI application was forecasted analytics which enables businesses to make predictions in finance, marketing, and risk management.
5. **Case Study: AI in Supply Chain Management:** An example shown in a case study depicts how AI can improve supply chain efficiency by anticipating demand, controlling stock levels, and driving down expenses. AI can provide thorough analysis of big data pools, thus increasing the accuracy of prediction, decreasing cost of logistics, and enhancing general customer satisfaction.

6. **Challenges of AI Implementation:** Despite the various merits AI has to offer, the workshop also focused on the potential issues businesses might face when integrating AI into their operations such as high expenditures, privacy risks, and the requirement of trained personnel. Revisiting ethics also emphasized the respect to be given to AI systems bearing in mind fairness and transparency.

7. Pictures From Day 2.



Figure 4 Day 2 Discussions with the Instructor on the need for Data Privacy in use of Artificial Intelligence Models

Chapter 3 – Turkish Aerospace

We departed on September 12, 2024 taking the high-speed YHT Train, which connects Istanbul with Ankara. This mode of transport is also very efficient, as within just a few hours, we reached the city's main railway station, **Ankara Gar**. The train provided incredible views of the Turkish countryside. After our arrival in Ankara, we headed to the **Turkish Aerospace Industries** for a visit that promised to be engaging. We learned a substantial amount about Turkey's aerospace industry and its technology and defense advancements. The entire trip was incredibly well-organized, allowing us to focus on what truly mattered; the learning experience.

As part of our industrial exposure during the trip, we were provided a window of opportunity involving industrial exposure was presented to us during the trip, which was the visit to **Turkish Aerospace**, which is located in Ankara, Turkey, and is among the foremost companies in the world for defense and aerospace. From this visit, we gained a unique perspective of the company's remarkable technological innovations and how important it's for Turkey's industrial setting. We also visited several assembly lines for aircraft and drones whereby we, personally, observed the efforts made by Turkish Aerospace in the application of modern technology into the manufacturing processes.

History and Significance of Turkish Aerospace

Remembered for its aerospace achievements, **Turkish Aerospace Industries (TAI)** was founded in 1973 with a primary goal of making Turkey less dependent on foreign defense systems. Over the decades, Turkey's Aerospace expansion from a small firm to a notable multi-national corporation allowed it to become an important player in the international aerospace market. These days, Turkish Aerospace is among the top defense contractors in the world and plays an important role in the national defense industry.

Turkish Aerospace's commercial military indoctrination does not exclusively focus on military applications. TAI also undertakes commercial aerospace projects and R&D in aviation, space systems, and advanced technology. Employing more than ten thousand people and with a massive production base located in Ankara, TAI contributes greatly towards the defense and aviation industry of Turkey.

It is extremely critical for the Turkish economy and its industrial base to appreciate the impact of Turkish Aerospace on their country. Turkish Aerospace designs and manufactures advanced aircraft with highly sophisticated systems, both manned and unmanned, as well as satellites. Most importantly, the firm spearheads efforts to achieve self-sufficiency in military production and export capabilities.



Figure 5 Group Picture at Turkish Aerospace



Figure 6 Turkish Aerospace after visiting the Assembly Lines

Visit to the Assembly Lines

During our visit, we toured two of the most notable sections of Turkish Aerospace's production facilities:

1. **Aircraft Assembly Line:** This segment of the tour focused on the entire process of creating aircraft parts, civil and military planes as well as assembling them. Parts of Turkish Aerospace Industries became most famous for the production of the multi-role attack helicopter **T129 ATAK** and the more advanced **Hurjet** jet trainer and light attack aircraft. The assembly line itself was an epitome of engineering productivity as we saw China's skilled workforce and modern machines working in unison to produce these aircrafts.

2. **Drone (UAV) Assembly Line:** Attending the drone assembly line stands out as one of the most memorable aspects of the trip. Turkish Aerospace excels in manufacturing civilian drone technology since they are very crucial in active defense strategies. Their premier model, **ANKA**, is the company's MALE surveillance and reconnaissance drone. We got to see the different phases of drone building from frame building to AI-based autonomous flight and advanced sensor integration. The ANKA series of drones have achieved worldwide fame and are already being supplied to multiple nations, which cements the status of the Turkish Aerospace industry in the international drone market.

Technological Contributions and Industrial Impact

Turkish Aerospace's contributions exceed their production contributions. The company is engaged in R&D of projects using artificial intelligence, modern materials, and satellites. These innovations are critical for the defense industry of Turkey and, at the same time, are beneficial for technology advancement in the world.

- **AI and Autonomous Systems:** A primary focus for Turkish Aerospace is the implementation of artificial intelligence into UAVs and aircraft systems. Utilizing AI, Turkish Aerospace is capable of designing drones that can function autonomously, substantially improving operational and mission efficiency.
- **Space Systems:** Another area that is very important is the technology pertaining to space. Turkish Aerospace plays a pivotal role in the development of satellite systems and also in Turkey's bold goal of becoming a nation capable of space exploration. The company is also playing a role in the designing and building of communications and observation satellites important for national defense as well as scientific endeavors.

As we toured Turkish Aerospace at Ankara, we got to witness one of the more sophisticated spaces in the defense and aviation technologies. Turkey is heavily investing on its indigenous defense factors so it would make sense to do a comparison between Turkish Aerospace and Pakistan's aerospace industry particularly with the Pakistan Aeronautical Complex (PAC), the dominant company in Pakistan's aerospace industry. This comparison will help us understand the advantages, issues, and possibilities of both industries.

1. History and Development

- **Turkish Aerospace (TUSAŞ):** Turkey's history in aviation began in 1973, with the establishment of the Turkish Aerospace Industries (TUSAŞ) and since then, it has expanded into one of the largest producers of military aircrafts, helicopters, drones, and satellites. Turkish Aerospace is exporting its products and putting itself out there as a global innovator which helps increase their influence over other regions.
- **Pakistan Aeronautical Complex (PAC):** Since 1971, PAC Kamra has been the leading aerospace and defense manufacturer in Pakistan. Apart from PAC being responsible for mending, fixing and Whitelisting of military planes for Pakistan Air force (PAF), PAC also has Israeli motives. Its most valuable accomplishment is the joint collaboration with the Chinese in the development and production of JF-17 Thunder, a multi-role combat fighter version which now stands as the pillar of air defense for Pakistan. In addition, PAC takes care of the servicing, repair, and upgrade of several airframes in the PAF inventory.

Key Difference: Although Turkish Aerospace and PAC were both established with the common goal of enhancing domestic military capabilities, Turkish Aerospace has adapted to encompass commercial aerospace and space technologies, while PAC has remained focused on military aviation.

2. Technological Advancements and Capabilities

- **Turkish Aerospace:** Turkish Aerospace has progressed significantly in creating advanced technology for high-level drones (UAV) and Rotorcrafts. Its flagship UAV, the ANKA, is a Medium Altitude Long Endurance (MALE) drone that specializes in reconnaissance and surveillance missions. The company also designed the T129 ATAK Helicopter, which puts Turkish Aerospace into the umbrella of nations capable of producing fighter jets. The company is building the TF-X, which is a fifth-generation indigenous stealth fighter project. One more company's vertical—and horizontal—expansion are space technologies where satellites are developed for communication and defense.
- **Pakistan Aeronautical Complex (PAC):** PAC's advancements and achievements in technology stem from its relations with China, as exemplified by the development of the JF-17 Thunder multirole combat fighter aircraft. The JF-17 enables Pakistan to lessen its reliance on Western fighter aircraft, and it stimulates interest from other nations with cheap air defense requirements. Additionally, PAC undertakes the modernization and maintenance of a fleet of older aircraft, such as Mirage III and F-16. Pakistan is yet to produce UAVs and helicopters on the same level as the Turkish Aerospace industries, albeit some progress is being made in drone technologies, especially the development of tactical drones like Burraq.

Key Difference: Unlike PAC's focus on the development and servicing of fighter aircraft, Turkish Aerospace has ventured more deeply into high-tech sectors like autonomous systems, rotorcraft, and space technologies. Although Pakistan is improving its drone technology, Turkish Aerospace is far more developed in this area.

3. Global Export and Partnerships

- **Turkish Aerospace:** Turkish Aerospace is now recognized as a global seller, particularly in the drone and helicopter market. The ANKA UAV and T129 ATAK Helicopter have been sold to various markets in the Middle East, Africa, and Asia. Besides Turkish Aerospace's partnerships with international defense companies and governments, it is a major contributor to the NATO defense projects. Its involvement in Space Technologies gives other countries a reason to work with it on different fronts, making him one of the leading heads in the game.
- **Pakistan Aeronautical Complex (PAC):** Owing to the popularity of the JF-17 Thunder, the company has gained considerable attention from several Asian, African, and Middle Eastern nations. While Myanmar and Nigeria purchased JF-17s, PAC is still searching actively for other buyers of this affordable fighter jet. Unfortunately, Pakistan's defense exports continue to be concentrated around the fighter aircraft sector, lacking compared to Turkish Aerospace in other sectors of aerospace.”

Key Difference: While PAC is mainly focused on exports for the Thunder JF-17 and military aviation services, Turkish Aerospace has diversified its exports to include drones, helicopters, satellites, and space systems..

4. Research and Development (R&D)

- **Turkish Aerospace:** Turkish Aerospace invests considerably into innovation, allocating a significant portion of its revenue to research and development. Its R&D arms are focused on the integration of AI into autonomous systems, advanced materials, and even satellite technologies. The company's R&D efforts also aim to foster self-sufficiency in Turkey's aerospace industry, aligning with the nation's defense strategies to achieve dominance in the sector.
- **Pakistan Aeronautical Complex (PAC):** At PAC, the focus of R&D has primarily been the development and enhancement of military aircraft and more specifically, the JF-17 Thunder project. While PAC conducts R&D for the upkeep and modernization of PAF's other aircraft, the funding and scope for R&D is more restrictive in comparison to Turkish Aerospace. Newer drone technologies are being developed, but as with many of Pakistan's UAV initiatives, there is still a fundamental lag in comparison to Turkey's more sophisticated UAV platforms.

Key Difference: Similar to the Turkish Military, military aviation PAC is effective, but its R&D scope and budget are more restricted - similar to what we see at PAC. However, Turkish Aerospace has a more extensive R&D structure with efforts in aviation, space, and advanced technologies.

5. Industrial and Strategic Significance

- **Turkish Aerospace:** Turkish Aerospace is pivotal to Turkey's defense industrial base. The company positions itself as a great asset for the country's goals of defense production self-sufficiency. The firm also meets the domestic defense requirements while contributing to the Turkish economy through exports. The company's efforts in AI, space systems, and

drone development are part of Turkey's overarching aim of becoming a significant regional power with global aerospace reach.

- **Pakistan Aeronautical Complex (PAC):** PAC's importance to Pakistan goes beyond aircraft since it also provides the Pakistan Air Force with indigenous aircraft maintenance, production, and modernization services. In particular, the JF-17 project stands out as a matter of great national pride as well as one of the cornerstones of Pakistan's defense strategy. However, PAC remains primarily focused on military needs with little investment in commercial aerospace and space system activities.

Key Difference: While Turkish Aerospace branches into both military and civilian aerospace and even space technologies, PAC focuses only on military aviation and has yet to expand towards commercial business or space endeavors.

Lunch at Turkish Aerospace

Upon arrival at Turkish Aerospace, we were greeted for lunch , which was a perfect symbol of rich tradition of Turkish Cuisine. It is customary in Turkey to begin meals with a serving of comforting tomato soup, and we did just that! After unleashing the flavors of the soup, we were treated with an incredible serving of rice which was paired with a variety of delicious vegetable-based Turkish dishes. Every dish was bursting with vibrant fresh flavors and various spices, which reflected the essence of the local culture. This, combined with the hospitality of Turkish Aerospace, made our industrial visit incredibly enjoyable and memorable.



Figure 7 Lunch at Turkish Aerospace

Chapter 4 – Lesson Learnt

Cultural Exploration in Istanbul

Hagia Sophia,

Our academic endeavor in Istanbul was complimented by our visits to the city's culturally rich landmarks. One of the memorable experiences was touring the structure of **Hagia Sophia**, one of the grandest buildings of the Byzantine Empire which serves today as a museum after functioning as a cathedral and an Ottoman mosque. Fromic started painting new walls to icon of immeasurable importance to the constant plethora of intricate mosaics, escalating domes, and overall religious iconography blended together and awakened with deep Turkish roots. Walking through the enormous halls of Hagia Sophia gave us a chance to witness the construction and the cumulative history that surrounds the place. It was truly remarkable to observe the building's long-standing chronicles that its holder epitomizes. Looking through the windows gave us a chance to admire the rich blend of both Christianity and Islam which fundamentally carved the city's identity.



Figure 8 Visit to Hagia Sophia,

Blue Mosque (Sultan Ahmed Mosque)

Moreover, we got to explore the **Blue Mosque**, popularly known as the Sultan Ahmed Mosque, which is famous around for its wonderful blue Iznik tiles and its impressive domes. The intricate design and serene, tranquil affairs of the mosque provided immense peace from the hustling city. While strolling through the exquisitely decorated and spacious courtyards and interiors of the mosque, we thought about the great cultural and religious value of the building; it serves as a fully functioning place of worship and is a wonderful tourist attraction as well.



Figure 9 Blue Mosque (Sultan Ahmed Mosque)

Topkapi Palace

Our cultural immersion continued with a visit to the **Topkapi Palace**, an extravagant home to Ottoman sultans for roughly four hundred years. The palace was intricately built, with its spacious rooms, grand decorations, and sweeping courtyards which let us peek into the world of Ottoman rulers. Walking through the gardens of the palace while looking at the historical pieces gave us additional insight into how much the Ottoman Empire impacted the region's history politically and socially.



Figure 10 Visit to Topkapi Palace

Grand Bazaar

Our visit to Istanbul marked its zenith with the **Grand Bazaar** (Kapalıçarşı), one of the oldest and largest covered markets in the world. The bazaar was built in the 15th Century during the reign of Sultan Mehmed II. It is not purely a market place but a cultural and historical emblem encapsulating the city's significance as a long standing center of trade. Having more than 4000 shops across 61 streets, the Bazaar has been a trading hub for centuries welcoming merchants from Europe, Asia and the Middle East.

Upon entering the market, we were welcomed into an explosive atmosphere where centuries old traditions blend seamlessly with contemporary commerce. The smells of fresh spices and the intricate patterns of handmade Turkish carpets and silver jewelry went hand in hand with the dazzling colors of the Bazaar. The blend of sounds, fragrances and lively activity was without a doubt a feast for the senses.

There was a great variety of products sold as we walked through the market's narrow and maze-like alleys; ranging from beautiful lanterns, traditional Turkish textiles, leather products, ceramics, and even antiques. The Grand Bazaar captures one's imagination with the beautiful artistry and wonder of handcrafted jewelry and Iznik ceramics, which reflects the Turkish craftsmanship and artistry. It was incredibly fascinating to see and appreciate the items being sold, handcrafted jewelry and Iznik ceramics seemed to showcase a deep rooted tradition of Turkish craftsmanship.

One of the key highlights of our visit was participating in bargaining, a centuries old practice. In the Grand Bazaar, bargaining is never merely a business transaction, rather, it is an activity that one embraces and participates in, including ancient culture. Local vendors made exemplified the complexity of bargaining as a skill that is very sociable. In this manner, we were able to gain an appreciation of Turkish culture on a sociological level rather than purely anthropological.

The Grand Bazaar has historical importance, Beyond its commercial significance, it is considered as a center of global trade. Grand Bazaar played a vital role in the trade network during Ottoman Empire, acting as center of trade and commerce between Istanbul and regions in Europe and Asia. It is and will continue to serve as

a precious symbol of Malta's history and heritage. Moreover, merchants from different parts of the continents have connected for centuries in idea and culture exchange. As globalization spread, it changed the face of the Grand Bazaar and today, the same virtue is preserved.

Our time in the Grand Bazaar provided us not only with unique souvenirs but also with a deeper appreciation of Istanbul's rich heritage. The experience of navigating its labyrinthine streets, interacting with local artisans, and learning about the history of this ancient marketplace was a truly unforgettable cultural immersion, offering a glimpse into the heart of Istanbul's enduring legacy as a global city.



Figure 11 Visit to the Grand Bazar

A Holistic Experience

The blend of fascinating classes at Altinbas University along with our participatory cultural trips, made our stay in Istanbul both productive and enjoyable. From the academic side, we learned the latest business and AI technologies. At the same time, the visits to Istanbul's most distinguished sites provided a glimpse to the city's fascinating history and multicultural heritage. All together, these experiences provided a wonderful mix of education and tourism which will always be remembered.

The integration of an academic study trip to Altinbas University and an industrial visit to Turkish Aerospace provided nuanced understanding to the fast changing world of business technology and global industry workflows. This trip enhanced our comprehension of contemporary business practices and artificial intelligence integration and more importantly, it imparted knowledge that can be beneficial in our professional pursuits.

1. The Importance of Adapting to Change.

2. A crucial takeaway while going through coursework at Altinbas University, was how adaptable one has to be in the constantly changing world of business. The lectures on marketing in the modern age and AI enabled business processes taught us how quickly technology and people's buying patterns change. It was made clear to us that in order to remain competitive, firms need to be flexible and be ready to change their marketing strategies or utilize AI in their strategic choices.

3. Ethical Considerations in Technology.

The lectures on AI ethics provided great insight into the implementation AI ethics. While we acknowledge that AI can improve productivity and efficiency, we have to consider ethical hurdles concerning bias, accountability, and privacy. The AI's need for transparency and fairness as ethical rules was very repetitive, one that signifies that we should be concerned with technological implementation and its impact on society for the better while trying to eradicate any possible harm.

4. Value of Industry and Academic Synergy.

The blend of profound learning in academics and industry experience shattered the notion that practical application of knowledge is quite ineffective. At Turkish Aerospace, we saw how state of the art AI technologies and automation are used in manufacturing, especially in drones and aircrafts. This further abrogated the assertion that innovation stems only from academic studies or research, proving that industry practice is just as important.

5. The Role of Human Capital.

The coursework at **Altinbas University** emphasized the essential contribution of human capital development towards business growth. In particular, education, upskilling, and financial literacy proved to be central in establishing a workforce prepared for the future. It is becoming apparent that with the increasing influence of AI and automation on the world, businesses need to focus on their human resources and cultivate skills that work in synergy with technology, not in opposition to it.

6. Global Perspective on Industry and Innovation

Turkey's industrial potential comes to play in a globalized world as showcased by our visit to the Turkish Aerospace. Moreover, the comparison of Turkish Aerospace to Pakistan's aerospace industry emphasized the necessity for self-sufficiency along with accumulating investment for domestic technology advancement. Self-sustained production of defense and aerospace technologies is distinctly beneficial on a strategic level, but it also facilitates economic expansion and international relations.

7. Cultural and Professional Hospitality.

The hospitality given to us, especially the customary Turkish lunch offered by Turkish Aerospace, highlighted the importance of cultural appreciation and relationship building in professional interactions. The warm welcome served to us further reinforced the need to cultivate interpersonal relations for effective business engagement at the international level, where culture matters tremendously in collaboration and partnerships.

Objectives of the NBS EMBA International Study Tour: Altinbas University and Turkish Aerospace

The study tour was strategically designed to coincide with NBS's Executive MBA program and facilitate achievement of the academic and career objectives while improving the knowledge of international business and industry innovations. These aims served as a guide to make certain that the experience gained was useful and complementary to the basic goals of the program. The key objectives are:

Enhancing Global Awareness and Cultural Understanding

The journey sought to introduce the students to the cultural, historical and economic features of Turkey, mainly for Istanbul and Ankara. Turkey's geographical placement at the meeting points of Europe and Asia helps the country to offer a unique view of global markets and cultural amalgamation. The visit to Altinbas University and Turkish Aerospace, amongst others, helped participants understand how businesses and academic institutions in Turkey function within the global economy. The students help assimilate the essence of a global business culture, which is an imperative in today's globalized market.

Integrating Theory with Practical Experience

Combining academics and real world business practice is the objective of the field trip. While attending Altinbas University, there were classes on marketing, AI in Business, and Human Capital Development to assess how theory can be translated into action in a business. This provides participants with an understanding of the complete cycle of an invention in a leading defense and aerospace company from histrionic innovation to techno sophistication.

Exploring Industry Innovations and Best Practices

Another central goal was to research new innovations in business and aerospace technology. . The lectures and workshops at Altinbas University provided participants with the most recent learn developments with regard to marketing, AI ethics, and financial literacy. The visit to Turkish Aerospace offered a glimpse of some of Turkey's innovations in the aerospace industry including the defense systems, UAVs, and space programs. These experiences enabled participants to receive practical knowledge on the best practices and technology trends that are transforming business and industry in the world.

Fostering Networking and Professional Development

Some of the most vital components of the study tour is networking and forming connections with the relevant industry leaders, academics, and fellow professionals. Participants were able to build relationships at the events with faculty of Altinbas University, executives of Turkish Aerospace, and other local vendors from the Grand Bazaar, which could manifest into professional collaborations in the future. Furthermore, the interactions facilitated the sharing of knowledge which enables them to appreciate varied business practices and entrepreneurial initiatives.

Developing Leadership and Strategic Thinking

The journey inspired students to utilize their strategic and leadership abilities on the surroundings. Interactions with Turkish businesses and institutions challenged participants to think about how global corporations deal with cultural diversity, regulatory factors, and technological advancements. Engagement on discussions about the use of AI technology, marketing innovation, and financial literacy compelled the participants to think about the application of these issues to their own organizations.

Cultural and Historical Exploration

Understanding the historical context in which modern businesses operate is essential to fully appreciating their strategies and challenges. Visits to key cultural sites such as the Hagia Sophia, Blue Mosque, and Topkapi Palace helped participants gain a deeper appreciation of Turkey's rich cultural heritage. The exploration of the Grand Bazaar, one of the oldest and largest covered markets in the world, further underscored the importance of trade and commerce in Turkish history, enhancing participants' global business perspectives.

Conclusion

We completed a 10-day trip in Turkey which was rich with industrial, cultural, and academic value. As students of **Altinbas University** in Istanbul, we were exposed to thorough hands-on approaches ranging from the coursework to the industrial visit at Turkish Aerospace in Ankara. This trip gave us a deep insight into how businesses function today and the parts that modern technology and innovation play in transforming industries. At Altinbas University, we had practical sessions on contemporary business matters which included topics like modern marketing, business financial literacy, and the use of artificial intelligence and machine learning in business processes. Combining theory with real world application during our sessions with AI was a very unique and important experience. Given the positive impact of AI and emerging technologies, it is critical to use them responsibly and ethically. Our visit to the Turkish Aerospace company was one of the most interesting parts of the trip. We learned so much during this visit to such a prominent aerospace company. The view of manufacturing lines for both aircraft and drones gave us great insight into the complexity and scale of aerospace modern manufacturing.

The integration of new technologies of AI, automation, and space by Turkish Aerospace highlights how the R&D efforts are paramount when trying to sustain competitiveness in emerging global industries. Also, the assessment of Pakistan's aerospace industry underlined the need for investment in local technological capabilities. On a cultural note, the trip also enhanced our appreciation for Turkey's culture, including its traditions, and the ethos of professional hospitality. The friendliness and hospitality, which we experienced most notably at the luncheon hosted by Turkish Aerospace, helped us remember the importance of nurturing close personal and professional relationships in a globalized world. To sum up, the trip was exceptionally unique and advanced our academic and professional outlook. The challenges we faced, including integrating the new technological paradigm and navigating the associated ethical implications, will benefit us in the long run. The integration of these new perspectives truly highlighted the importance of teaching Ukrainian students modern verdicts on global ethical responsibilities and the need to sustain global interdependence in the modern world. Upon our return, we all had new information, skills and attitudes that will serve as a foundation for the development of our professional careers.