

## How Family Businesses Can Stay Ahead Through Digitalization

**Afra Ibnat, Afra Ibnat Progga, Imtiaz Ahmed and Md. Ashraful Islam**

Industrial and Production Engineering Department

American International University Bangladesh, Dhaka, Bangladesh

[afraibnat773@gmail.com](mailto:afraibnat773@gmail.com), [afraprogga32@gmail.com](mailto:afraprogga32@gmail.com),

[imtiazmashrafi41@gmail.com](mailto:imtiazmashrafi41@gmail.com), [mdashrafulislam360@gmail.com](mailto:mdashrafulislam360@gmail.com)

### Abstract

A family business refers to a business or organization owned and controlled by members of a family. In this era of digitalization, family businesses are struggling with new challenges to stay competitive in the market. This study focuses on how such businesses can incorporate technology into their operations and embrace digital transformation to stay ahead in the market. The goal is to identify strategies that family businesses can adopt to effectively integrate digital technologies. A survey was conducted with family-owned businesses from various sectors such as sheet metal industries, container factories and chemical industries to gather insights on their insights on using digital technologies. Affluent family businesses mentioned are gradually adopting new technologies, enhancing digital skills, and fostering innovation. For example- nowadays sheet metal industries are using CAD software to get helped in designing and CAM software to get helped in cutting metals directly from CAD models, ERP software to manage production schedules, container factories are also using ERP software, some of the factories use SCM software to manage suppliers, inventory levels and demand forecasts, chemical industries have started using APC systems to control chemical production processes, IoT sensors to get real time monitoring of temperature, pressure, flow and chemical concentrations. These industries are also leveraging social media and online sales platforms to connect with customers, enabling them to expand their reach to international markets. By embracing technology, family businesses can thrive in the age of digitalization and ensure their long-term success.

### Keywords

Family business, digitalization, technology, digital skills, online sales.

### Biographies

**Afra Ibnat** is currently an undergrad student of Industrial and Production Engineering at AIUB. Afra is a newly joined member of the IEOM Society International and a host for the IEOM AIUB Student chapter. She was a debater at Adamjee Cantonment College Debating Club and participated in various debate competitions. Currently, Afra is researching effective strategies for family-owned businesses to adapt digital tools while maintaining their core values.

**Afra Ibnat Progga** is a dedicated student of Industrial and Production Engineering at AIUB. She is an active member of the IEOM Society International and a volunteer for the IEOM AIUB Student Chapter. Previously, she served as the Vice President of Quiz for the BAF Shaheen College Dhaka Science Club during its 2020-21 executive panel. Afra's passion for sustainable development is evident in her enthusiasm for the UN's Sustainable Development Goals (SDGs), which she incorporates into her ongoing undergraduate research projects focused on sustainable industrial practices.

**Imtiaz Ahmed** is currently a student at American International University-Bangladesh (AIUB), pursuing a degree in Industrial and Production Engineering (IPE). He completed his higher secondary education at Saint Joseph Higher Secondary School and his schooling at Monipur High School and College. Imtiaz is also a research assistant under Dr. Shovan Kumar Kundu (Assistant Professor, Faculty, Department of Natural Science (Physics) in AIUB) in the

field of Nanotechnology, where he has contributed two research papers: Investigation of Multiferroic Properties & Electrical Properties of Manganese Doped Lanthanum Ferrite Nanoparticles and Effect of Samarium on Multiferroic Properties of Lanthanum Ferrite Nanoparticles. He presented these research topics in a poster presentation at Atomic Energy Commission, Dhaka University, Dhaka. This research event was organized by Bangladesh Physical Society. Along with his research, Imtiaz has gained volunteering experience, recently participating in the seminar 'The Advancement of Physics Research for Engineering Students' at AIUB. Looking ahead, he is eager to continue his research in his favorite fields and contribute further to scientific advancements.

**Md. Ashraful Islam** is a dedicated student of Industrial and Production Engineering at AIUB. He is an active member of the IEOM Society International and a volunteer for the IEOM AIUB Student Chapter. His dedication to sustainable development is reflected in his enthusiasm for the UN's Sustainable Development Goals (SDGs), which inspire his academic pursuits. He integrates these principles into his undergraduate research, focusing on innovative and sustainable industrial practices to address environmental challenges and promote global resilience.