



APCICT
Asian and Pacific Training Centre
for Information and Communication
Technology for Development



Course on

Digital Empowerment of Women Entrepreneurs

Digital Empowerment of Women Entrepreneurs

Women Entrepreneur Track



APCICT

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for Information and Communication
Technology for Development

Digital Empowerment of Women Entrepreneurs

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Contact:
Asian and Pacific Training Centre for Information and Communication
Technology for Development (APCICT/ESCAP)
5th Floor G-Tower, 175 Art Center Daero
Yeonsu-gu, Incheon, Republic of Korea
Tel +82 32 458 6650

Email: apcict@un.org

PREFACE

The Women ICT Frontier Initiative (WIFI), launched in 2016, is APCICT's flagship ICT capacity-building programme for women's entrepreneurship. It aims to enhance the skills of women entrepreneurs in utilizing digital tools in their businesses. It also seeks to support policymakers in creating an environment that is conducive for digitally-empowered women entrepreneurs.

Recent challenges in the global landscape, such as the COVID-19 pandemic, necessitated a review of APCICT's training support for women entrepreneurs. The pandemic was a wake-up call that significantly impacted women-owned enterprises and underscored the importance of the digital transformation of businesses. It not only exposed vulnerabilities but also the need for women entrepreneurs to harness the power of technology in a holistic manner.

APCICT revamped the WIFI programme (now called WIFI DX) to equip women entrepreneurs with practical tools to navigate disruptions and harness the benefits of digital transformation effectively. With WIFI DX, new courses have been developed, encompassing e-commerce and digital marketing, digital financial literacy, data analytics, trust and security, and business continuity planning.

It is our hope that WIFI DX programme will serve as a valuable resource for women entrepreneurs in the region, so that their enterprises can thrive, become more productive, and sustainable.

Kiyoung Ko
Director
APCICT/ESCAP

ABOUT THE COURSE

The Digital Empowerment of Women Entrepreneurs course serves as the cornerstone of WIFI DX providing women entrepreneurs with essential knowledge on digital transformation and innovation. The WIFI DX courses will help women entrepreneurs build strategic perspectives in their digital business transformation journeys.

This course instils the mindset and motivation required to embark on a transformative journey, while also highlighting the relevance and benefits of the other five specialized courses, namely E-Commerce and Digital Marketing, Digital Technologies and Financial Management, Data Analytics for Women Entrepreneurs, Trust and Security Using Digital Technologies and Business Continuity Planning.

Course Target Audience

- Women Entrepreneurs
- Course Trainers

Course Learning Objectives

1. Comprehend the fundamental concepts of business innovation & digital transformation.
2. Appreciate the benefits of five specialized courses of WIFI DX (E-Commerce and Digital Marketing, Digital Technologies and Financial Management, Data Analytics for Women Entrepreneurs, Trust and Security Using Digital Technologies and Business Continuity Planning) to reduce issues and challenges faced by women entrepreneurs.
3. Apply lessons learned from relevant case studies and create action plans for their own businesses.

Course Learning Outcomes

1. Women entrepreneurs can understand the basic concepts of business innovation and digital transformation.
2. Appreciate the benefits of the specialized courses in reducing their issues and challenges.
3. Participants are motivated to use and apply the knowledge derived from the course.

Acknowledgements

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MODULE 1: FOUNDATION KNOWLEDGE & CURRENT SITUATION

Description

This module introduces and describes the reasons that justifies the need for women entrepreneurs to integrate business innovation and digital transformation in their business.

Objectives

The learning objectives of this module are:

- Understand fundamental concepts of business innovation & digital transformation and the situation of women entrepreneurs.
- Learn the advantages of having innovative and digital empowered business and the benefits of the five specialized courses under the WIFI DX program.
- Understand the actual problems faced by women entrepreneurs and the gaps of the enabling environment.

Learning Outcomes

- Women entrepreneurs appreciate the basic concepts of business innovation and digital transformation.
- Become aware of the benefits of digital transformation, innovation and the five specialized courses to their businesses.
- Understand how their issues and challenges can be reduced.

Key messages

The module key messages:

- Business innovation and digital transformation can make women entrepreneurs' business more effective and efficient.
- Digital transformation can enhance customer engagement, facilitate informed decision making,

market reach and global presence, business efficiency and cost reduction.

- Business innovation can develop new customers or expand market reach and can generate more income.
- The specialized courses when applied can provide benefits to women entrepreneurs' business enterprises.
- Opportunities, issues, and challenges are part of women entrepreneurs' business transformation journey.
- Lessons can be learned from the issues and challenges experienced by women entrepreneurs and how digital transformation and innovation can help reduce these.

Lesson 1: Essential knowledge on digital transformation & business innovation

Lesson Introduction

The concepts of digital transformation and business innovations are defined here as the cornerstone or fundamental platforms of the upgraded WIFI DX Program for women entrepreneurs. The basic definitions are explained in simple terms with examples for easier understanding of the target audience.

Digital transformation

Digital transformation refers to the process of leveraging digital technologies to innovate, streamline operations, and enhance customer experiences across various aspects of business. It involves adopting new digital technologies, reimagining business processes, and fostering a culture of innovation to drive growth and competitiveness in the digital age.

In today's fast-paced and increasingly digital world, the landscape of business is undergoing a profound transformation. Central to this evolution is the concept of digital transformation, which entails harnessing the power of digital technologies to revolutionize the way businesses operate, interact with customers, and innovate. Let us explore the importance of digital transformation for women entrepreneurs and delve into examples that illustrate its impact.

Digital transformation is not merely a buzzword; it represents a strategic approach that can empower women entrepreneurs to thrive in a dynamic business environment. With the right tools and knowledge, women can leverage digital technologies to level the playing field and create opportunities that were once unimaginable.

One of the key aspects of digital transformation is data analytics. By gathering and analysing data, businesses can gain valuable insights into customer behaviour and market trends. For women entrepreneurs, this can be a game-changer. Imagine a female-led e-commerce business that uses data analytics to track customer preferences and tailor product recommendations. This personalization not only increases sales but also enhances customer satisfaction, paving the way for sustainable growth.

Cloud computing is another pillar of digital transformation. It allows businesses, including those led by women, to access computing resources on-demand, reducing IT infrastructure costs and enhancing flexibility. Small businesses can migrate their operations to the cloud, ensuring that they have the same access to technology as larger enterprises. This not only fosters efficiency but also levels the business playing field.

Internet of Things (IOT) technology provides another avenue for empowerment. Consider a smart agricultural startup founded by a woman entrepreneur. By deploying IoT sensors to monitor soil moisture levels and weather conditions, farmers can make data-driven decisions to optimize irrigation and crop planting. This empowers female farmers

to increase their yields, improve their livelihoods, and make a significant impact on their communities.

Furthermore, automation and robotics play a crucial role in streamlining operations. In sectors as diverse as manufacturing and healthcare, women-led businesses can employ automation to reduce labour costs and increase efficiency. This frees up resources for innovation and growth.

Artificial intelligence (AI) and machine learning offer immense potential for women entrepreneurs. AI-driven diagnostic tools in healthcare, for instance, enable doctors to detect diseases earlier and provide more accurate treatment recommendations. Women in healthcare can harness these technologies to improve patient outcomes and revolutionize their practices.

Digital marketing and customer engagement are also integral to success in the digital economy. Female entrepreneurs can utilize social media, email marketing, and content marketing to attract and retain customers. By understanding customer preferences and behaviour, they can tailor their marketing strategies, leading to increased brand loyalty and business growth.

E-commerce and online sales have become lifelines for businesses, particularly during the COVID-19 pandemic. Traditional brick-and-mortar retailers can pivot to online sales channels, allowing them to reach a broader audience and diversify their revenue streams. Women entrepreneurs can tap into the global marketplace, expanding their businesses beyond geographical boundaries.

Moreover, digital transformation offers opportunities to enhance customer development and the overall customer experience. For example, a restaurant can implement a mobile app for ordering and payment, providing customers with convenience and personalization.

Women in the hospitality industry can utilize such technologies to create memorable dining experiences.

Supply chain optimization, another facet of digital transformation, is essential for businesses of all sizes. By using blockchain technology to track the movement of goods, manufacturers can ensure transparency, reduce delays, and protect their products' authenticity. Women entrepreneurs in supply chain-dependent industries can benefit from these advancements, building trust and efficiency into their operations.

Lastly, cybersecurity and data protection are paramount. Women-led businesses must invest in robust security measures to safeguard customer data and their operations. This not only protects their reputation but also ensures compliance with privacy regulations.

Digital transformation is more than a technological trend; it represents a pathway to empowerment for women entrepreneurs. As exemplified by the diverse examples above, digital transformation touches every facet of business, from data analytics to cybersecurity. It levels the playing field, fosters innovation, and opens up new horizons.

Empowering women through digital transformation requires access to education and resources. Governments, private sector organizations, and civil society must collaborate to provide training programs, mentorship opportunities, and funding support for female entrepreneurs. By doing so, we can create an inclusive digital economy where women can participate in shaping the future of business.

Digital transformation presents numerous advantages for women entrepreneurs, including expanded market reach facilitated by access to global markets through digital platforms and e-commerce, heightened operational efficiency and productivity achieved through automation and streamlined processes, and enhanced customer engagement fostered by personalized interactions and data-driven insights. Moreover,

digital technologies empower women entrepreneurs to make informed decisions based on valuable data analytics, enabling strategic planning and optimization. The flexibility and agility afforded by digital tools allow swift adaptation to market dynamics, while fostering a culture of innovation and experimentation. Ultimately, digital transformation equips women-owned businesses with the means to differentiate themselves, drive competitive advantage, and thrive in the rapidly evolving digital landscape.

Here are several digital technologies that can enhance the process of digital transformation.

- **Data analytics:** Personalized e-commerce recommendations boost sales and satisfaction.
- **Cloud computing:** Small businesses access on-demand resources, levelling the playing field.
- **IoT technology:** Women in smart agriculture make data-driven decisions for increased yields.
- **Automation and robotics:** Streamlines operations, reduces costs, fosters innovation.
- **AI and machine learning:** Improved business insights, enhancing decision-making processes and overall operational efficiency.
- **Digital marketing:** Social media, email, and content marketing for customer attraction and retention.
- **E-commerce:** Global reach and revenue diversification for women entrepreneurs.
- **Cybersecurity:** Paramount for safeguarding customer data and ensuring compliance.

While this WIFI DX program will delve into data analytics, digital marketing, and e-commerce individually, it is also valuable for participants to explore the following digital technologies: cloud computing, IoT technologies, automation & robotics, cybersecurity, AI, and machine learning. These technologies offer significant benefits to women entrepreneurs embarking on digital transformation journeys. Here are more details.

Cloud computing

Cloud computing has emerged as a cornerstone of modern business infrastructure, revolutionizing the way companies operate in the digital age. Cloud computing refers to the delivery of computing services—including servers, storage, databases, networking, software, and analytics—over the internet. Rather than maintaining physical hardware and infrastructure on-premises, businesses can leverage the resources of cloud service providers, accessing them remotely via the internet.

One of the primary ways cloud computing aids in digital transformation is by providing scalability and flexibility. This is particularly beneficial for women entrepreneurs as it enhances their ability to leverage technology by reducing significant upfront investment. Moreover, cloud computing allows businesses to scale their resources up or down rapidly in response to changing demands. This agility is particularly useful in today's fast-paced, dynamic business environment, enabling women entrepreneurs to innovate and adapt more quickly. At its core, cloud computing provides access to on-demand resources and services over the internet, revolutionizing traditional IT infrastructure models. Here are some of the benefits:

- 1. Scalability and flexibility:** Cloud computing provides scalable resources on-demand, enabling women entrepreneurs to launch and grow their businesses without significant upfront investment. For example, cloud-based e-commerce platforms offer scalable solutions for starting and managing online stores. Women entrepreneurs can easily scale their operations to accommodate growth in sales volume or expand their product offerings without worrying about infrastructure limitations.
- 2. Cost-effectiveness:** Cloud computing follows a pay-as-you-go pricing model, making it more cost-effective for women entrepreneurs compared to traditional IT infrastructure. Cloud-based collaborative tools and digital marketing platforms offer affordable solutions for building and managing remote

teams, promoting products and services, and reaching target audiences online. Women entrepreneurs can allocate their financial resources more efficiently, focusing on areas critical to their business growth and success.

- 3. Enhanced collaboration and remote work capabilities:** Cloud-based collaborative tools enable women entrepreneurs to work seamlessly with remote teams, partners, and clients. Whether it is project management software or video conferencing tools, cloud-based collaboration solutions facilitate communication, coordination, and teamwork, regardless of geographical location. This flexibility empowers women entrepreneurs to build diverse teams, leverage global talent, and expand their networks effectively.
- 4. Security and compliance:** Reputable cloud service providers employ robust security measures and compliance standards to safeguard data against cyber threats and breaches. Cloud-based e-commerce platforms and financial management software offer secure solutions for processing transactions and managing sensitive financial information. Women entrepreneurs can trust cloud-based solutions to protect their data and ensure compliance with regulations, enhancing customer trust and loyalty.

By integrating the benefits of cloud computing with specific applications for women entrepreneurs, such as e-commerce platforms, collaborative tools, business intelligence, digital marketing, and financial management software, women entrepreneurs can leverage technology to overcome barriers, access scalable solutions, and compete more effectively in the digital marketplace. Whether it's launching an online store, collaborating with remote teams, marketing products and services, or managing finances, women entrepreneurs can have the option to leverage on cloud-based solutions, tools and resources they need to succeed in business.

IOT technologies

IoT (internet of things) technologies encompass a wide range of hardware, software, and networking components crucial for connecting physical objects, devices, and sensors to the internet, enabling data collection, communication, and processing for various applications. Key components include sensors and actuators for detecting and controlling physical parameters, embedded systems and microcontrollers for specialized computing functions, and communication protocols such as Wi-Fi, Bluetooth, Zigbee, MQTT, and LoRaWAN for data exchange between IoT devices and networks. These components form the backbone of IoT systems, facilitating real-world data collection and execution of actions based on that data.

IoT technologies play a crucial role in connecting physical objects, devices, and sensors to the internet, facilitating data collection, communication, and processing for various applications. Here are some of the benefits:

- 1. Access to data-driven insights:** IoT technology enables women entrepreneurs to collect and analyze real-time data from various sources, providing valuable insights into customer behavior, market trends, and operational performance. This data-driven approach allows women entrepreneurs to make informed decisions, identify new opportunities, and optimize business processes for improved efficiency and competitiveness.
- 2. Automation and efficiency:** By leveraging IoT technology, women entrepreneurs can automate routine tasks and processes, reducing manual effort and freeing up time and resources for strategic initiatives. Automation leads to increased efficiency, lower operational costs, and improved productivity, enabling women entrepreneurs to achieve more with less resources.
- 3. Remote monitoring and management:** IoT technology allows women entrepreneurs to remotely monitor and manage their

businesses from anywhere, providing flexibility and convenience in managing operations. Whether it's tracking inventory levels, monitoring equipment performance, or analyzing customer feedback, IoT technology enables women entrepreneurs to always stay connected and in control of their businesses.

IoT technologies offer transformative solutions across various industries, presenting unique opportunities for women entrepreneurs to innovate and thrive in the digital landscape.

In smart retail, women entrepreneurs can leverage IoT devices like beacons and smart shelves to personalize promotions and streamline inventory management, enhancing sales and customer satisfaction.

Meanwhile, in healthcare solutions, wearable fitness trackers and remote patient monitoring systems empower women entrepreneurs to provide proactive health management and personalized treatment plans, leading to improved patient outcomes and reduced healthcare costs.

Additionally, IoT-enabled smart home products provide women entrepreneurs with opportunities to meet consumer demands for convenience, energy efficiency, and security, while promoting sustainability.

In smart agriculture, women entrepreneurs can utilize IoT solutions like soil moisture sensors and smart irrigation systems to optimize resource usage and environmental sustainability, ultimately increasing crop yields and profitability.

Moreover, in manufacturing optimization, IoT applications such as predictive maintenance and smart production systems empower women entrepreneurs to enhance operational efficiency and quality control, driving competitiveness and profitability in their ventures.

Furthermore, in transportation and logistics management, GPS tracking systems and smart logistics platforms enable women entrepreneurs to optimize fleet management and streamline operations, improving customer satisfaction and reducing transportation costs.

In the hospitality industry, women entrepreneurs can leverage IoT devices like smart room controls and guest experience management systems to offer personalized experiences and optimize resource usage, thereby driving revenue and enhancing guest satisfaction.

Finally, in environmental monitoring and sustainability efforts, IoT sensors provide women entrepreneurs with the tools to implement proactive environmental management strategies and contribute to environmental protection efforts through data-driven insights and actions.

Through the integration of IoT Technologies with the appropriate Data Analytics and these diverse business applications, women entrepreneurs can harness the power of technology to innovate, differentiate their offerings and unlock new opportunities for growth, efficiency, and sustainability.

Automation and robotics

Automation and robotics refer to the use of machines, computer systems, and advanced technologies to perform tasks and processes with minimal human intervention. These technologies automate repetitive and labor-intensive tasks, increasing efficiency, accuracy, and productivity in various industries. Automation involves the use of software and hardware systems to execute predefined tasks, while robotics involves the use of physical machines or robots to perform tasks autonomously or under human supervision.

Automation and robotics drive digital transformation by optimizing efficiency, accuracy, scalability, and innovation in business operations.

Here are some of the benefits:

- 1. Increased efficiency:** Automation and robotics streamline processes by automating repetitive and manual tasks, reducing the need for human intervention. This increased efficiency leads to faster turnaround times, improved productivity, and lower operational costs, driving overall business performance.
- 2. Enhanced accuracy and quality:** Automation and robotics ensure consistent and precise execution of tasks, minimizing errors and defects in products or services. This improvement in accuracy and quality leads to higher customer satisfaction and loyalty, strengthening the competitive position of businesses in the digital landscape.
- 3. Scalability and flexibility:** Automation and robotics enable businesses to scale their operations more easily to meet growing demand or adapt to changing market conditions. Automated processes can handle increased workload without significant manual intervention, allowing businesses to remain agile and responsive in dynamic environments.
- 4. Empowerment of human capital:** Automation and robotics free up human resources from repetitive and low-value tasks, allowing employees to focus on higher-level activities that require creativity, critical thinking, and interpersonal skills. This empowerment of human capital fosters employee engagement, satisfaction, and professional development, contributing to overall business success.

Automation and robotics technologies present unique opportunities for women entrepreneurs across diverse industries, enabling them to innovate, streamline operations, and drive business growth in the digital era.

In e-commerce, automated picking and packing systems streamline order fulfillment processes, allowing women entrepreneurs to efficiently manage large volumes of orders and enhance customer satisfaction.

Moreover, implementing chatbots and virtual assistants automates customer service interactions, providing 24/7 support and improving overall customer experiences in online businesses.

In manufacturing, robotic arms and automated assembly lines increase production efficiency and reduce labor costs, empowering women entrepreneurs to scale their production operations and meet growing demand for their products.

Additionally, automated inventory management systems with RFID technology enable women entrepreneurs to track inventory levels accurately and optimize stock replenishment processes, ensuring efficient supply chain management in retail and manufacturing sectors.

Furthermore, in healthcare, robotic-assisted surgery systems and automated diagnostic tools improve patient outcomes and enhance the efficiency of healthcare services provided by women entrepreneurs, driving innovation and excellence in the healthcare industry.

By integrating automation and robotics technologies into these specific business applications, women entrepreneurs can unlock new opportunities for efficiency, productivity, and competitiveness, driving digital transformation and achieving better outcomes in their ventures.

Cybersecurity

Cybersecurity refers to the practice of protecting computer systems, networks, and data from unauthorized access, cyberattacks, and data breaches. It involves implementing security measures, protocols, and technologies to safeguard digital assets and ensure confidentiality, integrity, and availability of information.

Cybersecurity plays a vital role in women entrepreneurs' digital transformation by safeguarding their digital assets, protecting sensitive information, and ensuring the trust and confidence of customers and stakeholders. As women entrepreneurs embrace digital technologies to innovate, grow, and compete in the modern business landscape, cybersecurity measures become essential to mitigate cyber threats, prevent data breaches, and maintain regulatory compliance. By implementing robust cybersecurity protocols, women entrepreneurs can enhance their business resilience, preserve their reputation, and foster long-term relationships with customers, partners, and investors, thereby enabling sustainable success in the digital era.

Here are some of the benefits:

- 1. Protection of digital assets:** Cybersecurity measures safeguard women entrepreneurs' digital assets, including intellectual property, financial records, and customer data, from unauthorized access, theft, or misuse.
- 2. Enhanced trust and reputation:** Effective cybersecurity builds trust and confidence among customers, partners, and stakeholders, enhancing the reputation of women entrepreneurs' businesses and fostering long-term relationships.
- 3. Mitigation of financial losses:** Cybersecurity helps women entrepreneurs mitigate financial losses associated with cyberattacks, data breaches, and fraud, reducing the risk of costly legal battles, regulatory fines, and reputational damage.
- 4. Compliance with regulations:** Cybersecurity ensures that women entrepreneurs comply with relevant data protection and privacy regulations, minimizing the risk of non-compliance penalties and legal liabilities.

Integration of cybersecurity with business processes and applications for women entrepreneurs involves implementing various security measures tailored to specific business needs.

- In e-commerce, ensuring SSL/TLS encryption and secure payment gateways protects online transactions and customer data, fostering trust and reliability.
- In healthcare, encryption and access controls safeguard electronic health records (EHRs) and sensitive patient information, ensuring compliance with regulations and maintaining patient privacy.
- For financial services, deploying multi-factor authentication (MFA) and fraud detection algorithms secures financial transactions and customer accounts, bolstering confidence in financial transactions.
- Supply chain security entails risk management practices and secure communication channels to mitigate cyber threats across the supply chain ecosystem.
- Cloud security measures protect data stored in cloud-based applications for small businesses, ensuring confidentiality and integrity.
- Mobile app security techniques shield mobile applications from unauthorized access and malware attacks, preserving user data privacy.
- Secure remote work environments are ensured through VPNs and endpoint security solutions for remote workers, maintaining the security of devices and data.

Additionally, cybersecurity education and training initiatives empower employees to recognize and mitigate cybersecurity risks, contributing to overall organizational security. By integrating compliance of cybersecurity regulations and cybersecurity practices into these business applications, women entrepreneurs can mitigate cyber risks, protect assets, and build trust in their digital operations.

AI and machine learning

AI (artificial intelligence) and machine learning are closely related concepts that involve the development of computer systems capable of performing tasks that typically require human intelligence. Artificial intelligence (AI) refers to the simulation of human intelligence in machines, enabling them to perform tasks such as learning, reasoning, problem-solving, perception, and decision-making. AI systems can analyze data, recognize patterns, and adapt their behaviours accordingly, making them versatile tools for various applications. While machine learning is a subset of AI that focuses on enabling machines to learn from data without being explicitly programmed. Machine learning algorithms analyze large datasets, identify patterns, and make predictions or decisions based on the observed data. Through continuous learning and refinement, machine learning models improve their performance over time.

The role of AI and machine learning in digital transformation is significant and multifaceted, impacting various aspects of business operations and strategy. AI and machine learning are essential enablers empowering organizations to leverage data-driven insights, automate processes, personalize experiences, innovate, and stay competitive in today's rapidly evolving business landscape. Here are some of the benefits:

- 1. Data-driven decision making:** AI and machine learning enable women entrepreneurs to make informed decisions based on data-driven insights. By analyzing large volumes of data, these technologies identify patterns, trends, and correlations that may not be apparent through manual analysis, empowering women entrepreneurs to optimize strategies and drive business growth.
- 2. Personalization and customer experience:** AI and machine learning enable personalized interactions with customers, tailoring products, services, and marketing messages to individual preferences and behavior. By understanding customer needs and preferences, women entrepreneurs can deliver targeted experiences that drive customer satisfaction, loyalty, and retention.

- 3. Predictive analytics and forecasting:** AI and machine learning algorithms enable women entrepreneurs to conduct predictive analytics, leveraging historical data to anticipate market trends, demand fluctuations, and future outcomes. This foresight aids in proactive resource allocation, risk mitigation, and capitalization on emerging opportunities.
- 4. Innovation and differentiation:** AI and machine learning foster innovation by analyzing market dynamics, consumer preferences, and competitor strategies thus empowering women entrepreneurs in innovation of new products, services, and business models. Women entrepreneurs can leverage on AI and machine learning to identify emerging trends, explore new markets, and create unique value propositions that differentiate their offerings and drive competitive advantage.
- 5. Enhanced security and risk management:** Women entrepreneurs benefit from AI and machine learning's role in cybersecurity, which involves real-time detection and mitigation of threats, fraud, and breaches. These technologies analyze network activity, identify anomalies, and respond swiftly, bolstering organizational resilience and safeguarding sensitive data.
- 6. Supply chain optimization:** AI and machine learning aid women entrepreneurs in optimizing supply chain management by forecasting demand, optimizing inventory levels, and refining logistics and distribution processes. This optimization minimizes costs, mitigates disruptions, and enhances overall supply chain efficiency, thereby boosting business performance.

AI and machine learning technologies offer women entrepreneurs transformative solutions across various industries, empowering them to innovate, reduce operations cost, and drive business growth in the digital age. In e-commerce, AI-powered recommendation systems personalize product offerings, enhancing customer experiences and driving sales. Moreover, implementing chatbots and virtual assistants

powered by machine learning automates customer service interactions, providing round-the-clock support and improving overall customer satisfaction. In retail, machine learning algorithms analyze sales data to predict customer demand, optimize inventory management, and tailor pricing strategies, thereby maximizing profitability and competitiveness. Furthermore, in healthcare diagnostics, AI-driven diagnostic tools assist healthcare professionals in accurate diagnosis and treatment planning, improving patient outcomes and healthcare service quality. Additionally, in financial services, AI-based fraud detection systems identify and prevent fraudulent activities, ensuring the security and integrity of financial transactions for customers.

By integrating AI and machine learning into these diverse business applications, women entrepreneurs can be empowered to harness the power of data-driven insights, offer personalized customer experiences, drive innovation, scale operations more efficiently and stay competitive in today's rapidly evolving business landscape.

In conclusion, digital transformation is not just a business strategy; it is a path to empowerment, and a means for women entrepreneurs to realize their full potential in the digital age.

** Look up "Retail 2020 | 5 Technologies that will change the way you shop" on YouTube or copy this link to watch the video: https://youtu.be/iRvaWHk3A8k?si=IqPw5POC9qz_YY-X

Business innovation and digital empowerment

Competition is common in the business landscape. If women entrepreneurs want their business to survive and they want to be unique, innovation can be relied on. Women entrepreneurs must constantly look for new ways to innovate because one cannot solve many problems with old solutions. Innovation and creativity are often used synonymously. While similar, they are not the same. Using creativity in business is important because

it fosters new ideas. Novelty or uniqueness is a key component of innovation.

Michael Boyles (2022) of Harvard Business Review suggests that for an idea to be innovative, it must also be useful. Creative ideas do not always lead to innovations because they do not necessarily produce viable solutions to problems. So, what is innovation? It is a product, service, business model, or strategy that is both novel and useful. It need not be major breakthroughs in technology or new business models. It can be a simple upgrade to a business company's customer service, or features added to an existing product.

Importance of innovation

Unforeseen challenges are inevitable in business. Innovation can help you stay ahead of the curve and grow your company in the process. Here are three reasons innovation is crucial for your business: it allows adaptability, fosters growth, and separates business from their competition.

It allows adaptability: The recent COVID-19 pandemic disrupted business on a monumental scale. Routine operations were rendered obsolete over the course of a few months. Many businesses still sustain negative results from this world shift because they've stuck to the status quo. Innovation is often necessary for companies to adapt and overcome the challenges of change.

It fosters growth: Stagnation can be extremely detrimental to your business. Achieving organizational and economic growth through innovation is key to staying afloat in today's highly competitive world.

It separates businesses from their competition: Most industries are populated with multiple competitors offering similar products or services. Innovation can distinguish your business from others.

Here are a few ways businesses can innovate:

1. **Product innovation:** This involves creating or improving products or services. For instance, developing a new smartphone model with advanced features or enhancing an existing software application.
2. **Process innovation:** Focusing on improving internal processes, such as supply chain management, production methods, or logistics. Streamlining workflows, reducing costs, and increasing efficiency fall under this category.
3. **Marketing innovation:** Innovating in how products are marketed, advertised, or positioned. For example, launching a creative social media campaign or introducing a new pricing strategy.
4. **Organizational innovation:** This pertains to changes in the organization's structure, culture, or management practices. Implementing flexible work arrangements, fostering a collaborative environment, or adopting agile methodologies are examples.
5. **Business model innovation:** Rethinking the fundamental way a business operates. Companies like Uber and Airbnb disrupted traditional models by introducing platform-based sharing economy concepts.
6. **Network innovation:** Collaborating with external partners, suppliers, or customers to create value. Building strategic alliances, joint ventures, or ecosystems falls into this category.
7. **Technological innovation:** Leveraging emerging technologies to create new products or improve existing ones. Examples include artificial intelligence, blockchain, and 3D printing.

Successful innovation often involves a combination of these types, tailored to an organization's unique context and goals.

Types of innovation

At its core, innovation is undertaken to solve business problems. Innovation in business can be grouped into two categories: sustaining and disruptive (Cote, 2022).

- **Sustaining innovation** enhances an organization's processes and technologies to improve its product line for an existing customer base. It occurs when a company focuses on creating better performing products or services. The goal is to enhance quality, features, and performance for its existing customers, ultimately leading to higher profit margins. It is typically pursued by incumbent businesses that want to stay atop their market.

For example, a successful smartphone manufacturer continually improving its flagship phone by adding better cameras, faster processors, and longer battery life. These incremental enhancements cater to loyal customers who are willing to pay for improved features.

- **Disruptive innovation** occurs when smaller companies challenge larger businesses. It involves an introduction of something novel – whether it is a product, service, or a business model – to an overlooked market segment. It can be classified depending on the markets those businesses compete in. Low-end disruption refers to companies entering and claiming a segment at the bottom of an existing market, while new market disruption denotes companies creating an additional market segment to serve a customer base the existing market does not reach.

For example, consider the rise of budget airlines. While traditional airlines focused on providing luxurious services to high-paying customers, budget airlines disrupted the industry by offering no-frills, affordable flights to a broader audience. For travelers

seeking cost effective options, these offerings are considered “good enough”. (Feder, 2023)

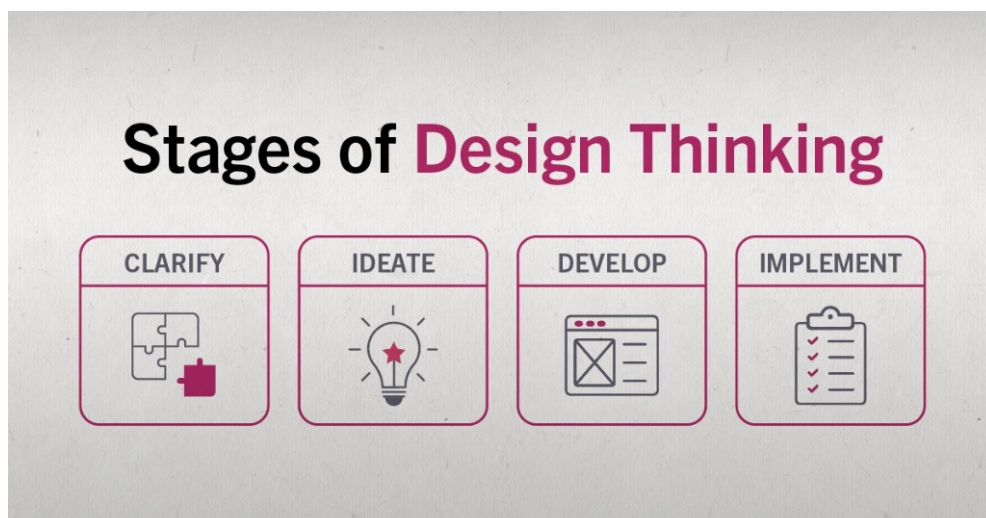
In summary, both sustaining and disruptive innovations play critical roles in shaping industries. Sustaining innovations maintain the status quo, while disruptive innovations challenge it, often leading to transformative changes and new market dynamics.

Innovation and design thinking

Several tools encourage innovation in the workplace. For example, when a problem's cause is difficult to pinpoint, you can turn to approaches like creative problem-solving. One of the best approaches to innovation is adopting a design thinking mentality. (Boyles, 2022)

Design thinking is a solutions-based, human-centric mindset. It is a practical way to strategize and design using insights from observations and research. (Han, 2022)

Figure 1. Four stages of design thinking. From Michael Boyles, *Innovation in Business: What it is and Why it's so important* (March 2022)



Four phases of innovation

Innovation's requirements for novelty and usefulness call for navigating

between concrete and abstract thinking. Introducing structure to innovation can guide this process. These are: clarify, ideate, develop, and implement. Each step is described as follows:

Clarify: The first stage of the process is clarifying a problem. This involves conducting research to understand your target audience. The goal is to empathize with and identify their key pain points and frame the problem in a way that allows you to solve it.

Ideate: The ideation stage involves generating ideas to solve the problem identified during research. Ideation challenges assumptions and overcomes biases to produce innovative ideas.

Develop: The development stage involves exploring solutions generated during ideation. It emphasizes rapid prototyping to answer questions about a solution's practicality and effectiveness.

Implement: The final stage of the process is implementation. This stage involves communicating your developed idea to stakeholders to encourage its adoption.

Aside from the above, another step must be included: Evaluation. The entrepreneur must be able to assess what was implemented to gain lessons from the process. This is because innovation must be human-centered.

Human-centered design

Innovation requires considering user needs. Design thinking promotes empathy by fostering human-centered design, which addresses explicit pain points and latent needs identified during innovation's clarification stage.

There are three characteristics of human-centered design: desirability, feasibility, and viability.

Desirability: For a business product or service to succeed, people must want it. Prosperous innovations are attractive to consumers, useful and meet their needs.

Feasibility: Innovative ideas require resources to pursue them. You must consider whether ideas are possible given technological, economic, or regulatory barriers.

Viability: Even if a design is desirable and feasible, it also needs to be sustainable. You must consistently produce or deliver designs over extended periods for them to be viable.

Consider these characteristics when problem-solving, as each is necessary for successful innovation.

Let us give a brief example of a business that illustrates the design thinking approach in innovation. The case is about the Jollibee Food Corporation, one of the biggest fast-food chains in the Philippines.

Brief business profile of Jollibee Food Corporation

In 1975, Tony Tan Caktiong, along with his wife Grace and their family started an ice cream business in Manila, Philippines. Initially, they operated as a franchise of Magnolia Dairy Ice Cream with two outlets in cities in Metro Manila. However, ice cream alone was not sustainable. So, the Tan Caktiong family thought, how can the company expand its business that will include a menu of hot savories?

By 1978, Tan Caktiong decided to end the franchise and converted his ice cream parlor restaurant into the first iteration of Jollibee. The name Jollibee was chosen because it connoted hard work like a busy bee, and evoked the idea of a sweet life, associated with honey.

The family embarked on a marketing strategy that included a logo that

played a crucial role in shaping Jollibee's brand identity. The logo was a bee design that became the iconic mascot known today. The company relentlessly focused on quality food, customer satisfaction, and innovation propelled the business to success.

Today, Jollibee's menu expanded to include Filipino favorites like pineapple burgers, and sweet-style spaghetti. Its success led to international expansion and the brand now has a strong presence in countries like the United States, Canada, the United Kingdom, Singapore, Hongkong, and more. The signature offerings include the Chickenjoy, Yumburger, and Jolly Spaghetti that have won customers' hearts worldwide. Jollibee stands as a Philippine icon, delighting generations with its flavorful means and warm service. (Garcia et al, 2022)

The design thinking process of JFC

The design thinking process of Jollibee Food Corporation (JFC) has played a significant role in its success. Let us delve into the key aspects:

1. Clarify and empathize:

Tony Tan Caktiong and his wife Grace, asked the question to clarify the company's problem: How can the company expand their business that will include a menu of hot savories? Equally thought of was its customers. Jollibee empathizes and understands its customers deeply. It identifies their needs, preferences, and pain points. By empathizing with its diverse customer base, Jollibee tailors its offerings to meet their expectations.

2. Define:

After gathering insights, Jollibee defines the problem and turned it into an opportunity. It clarifies its goals and objectives. For instance, when expanding internationally, Jollibee defines its target markets and growth strategies.

Jollibee has successfully expanded internationally, competing with giants like McDonald's. While maintaining its Filipino roots, Jollibee adapts its menu to suit local preferences in each country.

3. Ideate:

Jollibee encourages creativity and brainstorming. It generates innovative ideas for product development, marketing, and customer experience. This phase involves cross-functional collaboration and thinking outside the box.

4. Prototype:

Jollibee creates prototypes or mock-ups. It tests new menu items, store layouts, or digital features. Prototyping allows Jollibee to iterate quickly and refine its concepts based on feedback.

The friendly bee mascot is instantly recognizable and has become a cultural icon. Jollibee's branding emphasizes warmth, family, and community, resonating with Filipinos and creating a strong emotion connection.

5. Test:

Jollibee conducts pilot tests. It gathers data from real-world scenarios. For instance, when introducing a new burger, Jollibee tests it in select locations and collects customer feedback.

6. Implement:

Based on insights from testing, Jollibee implements changes. It launches branding or, updates its branding, or enhances its service. Implementation involves coordination across departments.

7. Evaluate, learn, and iterate:

Jollibee continuously learns from its experiences. It adapts based on market dynamics, customer reactions, and emerging trends. The company iterates its strategies to stay relevant.

Filipinos have a deep emotional connection to Jollibee. The brand is associated with childhood memories, family gatherings, and celebrations. Jollibee's loyal customer base remains devoted. Jollibee's menu is distinctly Filipino, celebrating local flavors and comfort food. Unlike many global fast-food chains that offer

standardized menus worldwide, Jollibee adapts its offerings to cater to local tastes. (Garcia Jr., et. al, 2022)

In summary, Jollibee's design thinking process combines empathy, creativity, and agility to drive its business forward.

Another example of a business is a case of a woman micro entrepreneur who effectively used the design thinking approach to drive innovation in her micro-scale business: Maryan's Handcrafted Jewelry.

Background of Maryan's Handcrafted Jewelry

Maryan, a passionate jewelry enthusiast, started her micro-scale business from her home. She wanted to create unique, personalized jewelry pieces that resonated with her customers.

Design thinking at work:

Empathize: Maryan conducted interviews with potential customers to understand their preferences, occasions, and desires related to jewelry. She discovered that people wanted meaningful, customizable pieces that reflected their personalities.

Define: Maryan defined her goal: to create handcrafted jewelry that told stories and connected with emotions. She focused on personalization, quality, and affordability.

Ideate: Maryan brainstormed ideas for designs, materials, and packaging. She explored various themes, such as birthstones, zodiac signs, and memorable dates.

Prototype: Maryan crafted sample pieces based on her ideas. She experimented with different metals, gemstones, and styles.

Test: Maryan showcased her prototypes to friends, family, and

potential customers. Their feedback helped her refine designs and pricing.

Implement: Maryan launched her online store and social media profiles. She offered customization options for each piece.

Learn and iterate: Maryan continuously learned from customer interactions. She adapted her designs based on trends and feedback.

As a result, Maryan's jewelry gained a loyal following, customers appreciated the personal touch and storytelling aspect of her pieces. Maryan's micro-business grew through word-of-mouth and repeat orders. Maryan's journey exemplifies how design thinking can transform a micro-scale business into a meaningful venture.

Innovation and business model

Business models refer to high-level plans of your business to make money. It identifies what product or service you will sell, your target market, and the anticipated business expenses. Whether your business is old or new, it is important to establish or update your business model in consideration of trends and challenges in the business environment.

Three common catalysts for business innovation include market contraction or expansion, introduction of a new product or service, and or need to attract new customers. The innovations in the business model need to consider the areas of modifications in your value proposition, customer segment, revenue streams and cost structure, key partners, key resources, key activities, and communication channels with clients.

Some of the types and examples of business models from traditional to the current ones.

- Retailer business model (e.g., Costco, Walmart) – buy or source finished goods from manufacturers and sell these goods to

- consumers. Example supermarkets Costco, Walmart
- Manufacturer business model (e.g., Ford Motor Company) - responsible for sourcing raw materials and producing finished products by leveraging internal labor, machinery, and equipment. May produce custom goods, replicated, mass produced products and sell these to distributors, retailers or directly to customers.
 - Franchising business model (e.g. McDonalds) – leverages existing business plans to expand and reproduce a company at a different location. Often food, hardware, or fitness companies, franchisors work with incoming franchisees to finance the business, promote the location, and oversee operations. In return, the franchisor receives a percentage of earnings from the franchisees.
 - Fee-For-Service (e.g., legal or consulting companies) – centered around providing services, charging by the hour or a fixed cost for a specific agreement. These companies are often specialized and require specific training.
 - Subscription business model (e.g., cable companies, Netflix) – offering a product that requires ongoing payment in return for fixed duration of benefit; offered by digital companies for access to software, or physical goods such as agriculture produce subscription box deliveries.
 - Freemium business model (e.g., anti-virus software products, LinkedIn) – attract customers by introducing them to basic, limited-scope products; the company attempts to convert them to more premium advanced products that require payments.
 - Bundling business model (e.g., AT&T, telecoms companies) – selling multiple goods to a single client, incentivized by offering discounts for buying multiple products.
 - Pay as you go business model (e.g., Utilities) – users pay how much they consume.
 - Marketplace (e.g., e-Bay) - Marketplaces are somewhat straightforward: in exchange for hosting a platform for business to be

conducted, the marketplace receives compensation. Although transactions could occur without a marketplace, this business models attempts to make transacting easier, safer, and faster.

- E-Commerce business model refers to how business operates to sell goods and services online. The main types of e-Commerce business models are Business to Government (B2G), Business to Business (B2B), Business to Consumers (B2C), Consumer to Consumers (C2C), Consumer to Business (C2B), and Business to Business to Consumer (B2B2C).

How do you know when your business model needs to change?

It is always helpful to find out what is happening in your industry. As a guide, frequently ask the following questions: has there been an influx of competition? Are there new tech trends that everyone is talking about? Are there new regulations that will affect your business. Taking stock and updating yourself with this information would give you a sense of what needs to be done.

Lesson 1 Summary

Digital transformation can make the business of women entrepreneurs more effective and efficient. It can enhance customer engagement, facilitate informed decision making, market reach and global presence, business efficiency and cost reduction.

Digital transformation fosters innovation and agility in business operations. Women entrepreneurs can quickly adapt to market changes, experiment with new ideas, and implement changes based on customer preferences and feedback.

Innovation is important to survive business competition. Innovation is a product, service, business model, or strategy that is both novel and useful. Innovations need not be major breakthroughs in technology or

new business models; they can be as simple as upgrades to a company's customer service or features added to an existing product.

Something to think about:

- Is digital transformation or innovation something my business needs?
- What would be the advantages of digital transformation and innovation in my business?

***Notes to Trainers

1. Find a case of a local business that has used digital technology and/or innovation in their business. This can serve as an example to explain the concepts presented in Lesson 1.
2. Concepts of digital transformation and business innovation may be best understood using local examples.
3. Likewise, find an appropriate quiz in your country to test your student's understanding of the knowledge. Submit quiz data to APCICT.

Lesson 2: Benefits of the WIFI DX Specialized Courses

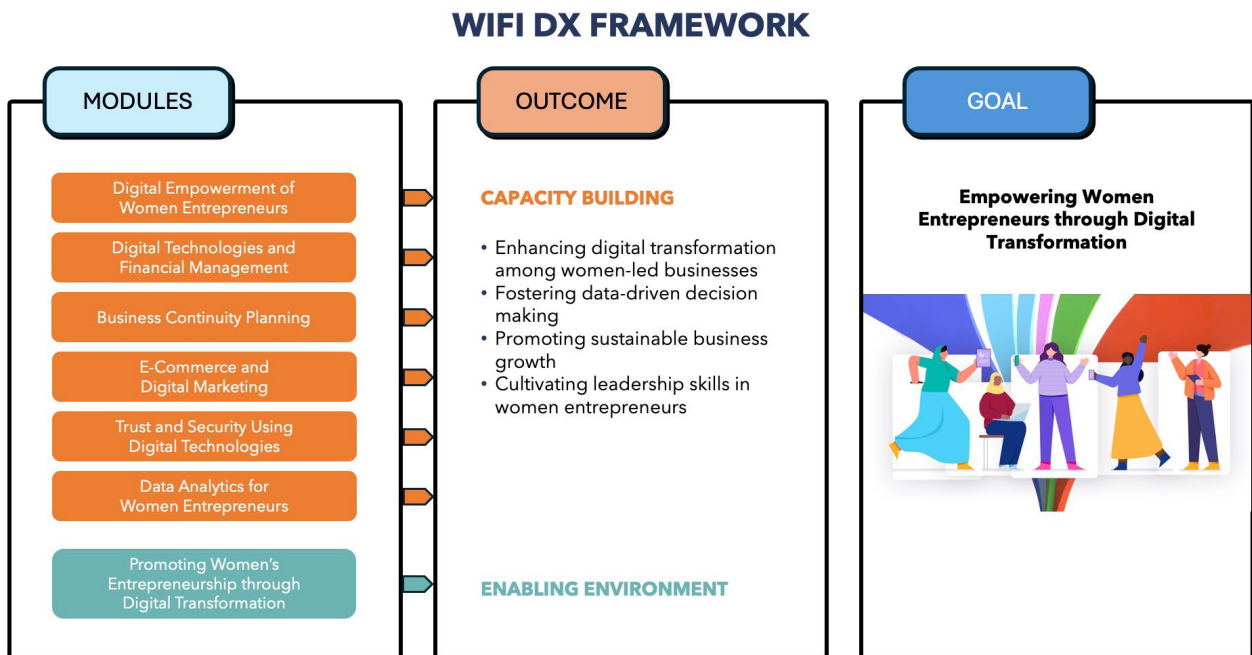
Lesson Introduction

The Women ICT Frontier Initiatives (WIFI) through Digital Transformation (DX) is aimed at harnessing the power of technology to innovate and improve the business enterprises of women entrepreneurs. WIFI DX is a brand of APCICT, and its goals are to strengthen capacities of women entrepreneurs to utilize digital tools in support of their businesses, as well as capacities government leaders and policymakers in providing an enabling environment for ICT empowered women entrepreneurs through

gender-responsive ICT-enabled policies and programmes. (APCICT, 2023)

The WIFI Program is updated to address the challenges and harness opportunities posed by global disruptions in the digital economy. Building the capacity of women entrepreneurs and policymakers is the program’s anchor to create the breakthrough needed after the downturn caused by the pandemic, and to put in perspective the positive use of digital technology to gain the desired improvement and growth of their businesses contributing to a more prosperous economic environment. Shown below is the WIFI DX framework that illustrates the goals, objectives, and the means to reach this goal.

Figure 2. WIFI DX Framework



The updated WIFI DX program offers specialized course modules. The courses include: E-Commerce and Digital Marketing, Financial Management Using Digital Technology, Data Analytics for Women Entrepreneurs, Trust and Cyber Security, and Business Continuity Planning for Women Entrepreneurs.

Figure 3. WIFI DX Specialized Courses



The following is a description of each course and the benefits that will be derived from the courses.

(1) E-Commerce and Digital Marketing Course

For women entrepreneurs to thrive in the digital economy, they need to be equipped with the practical skills needed to establish a strong online presence and effectively market their products or services in the digital space. By mastering e-commerce platforms and digital marketing strategies, women entrepreneurs can tap into global markets, reach a wider audience, and boost sales, thereby expanding their businesses beyond geographical boundaries.

The modules and lessons covered for Digital Marketing are:

Module 1: Digital marketing basics

Lesson 1: Digital marketing: Promoting products and services online.

Lesson 2: Why digital marketing: Increase awareness, drive sales, create desire.

Module 2: Social Media Marketing (SMM)

Lesson 1: SMM: Be present, post contents and interact with audiences at where they spent their time.

Lesson 2: Channels: Choose the channel(s) based on where your audience use and platform advantages

Lesson 3: Follow the unicorn: Replicate your competitors best performing contents

Module 3: Search Engine Marketing (SEM)

Lesson 1: SEM: Be visible when audiences search for your product or services online

Lesson 2: Per pay click: Advertiser only pay when click on ad happens.

Module 4: Search Engine Optimisation (SEO)

Lesson 1: SEO: Getting your website to rank high on search engine results page

Lesson 2: Organic (free) traffic: Clicks on organic listings are free. Sustainable for business

Lesson 3: Examples of OnPage SEO: Include relevant products keywords and quality contents on your website.

Module 5: Emerging trends

Lesson 1: TikTok video script generator: For TikTok video, FB reels & YouTube shorts

Lesson 2: ChatGPT: Use it for social media post captions, ads copies creation. Use AI tools to reduce content creation time.

The modules and lessons covered for E-Commerce are:

Module 1: E-commerce basics

Lesson 1: E-commerce: Any form of commerce transactions that happen online.

Lesson 2: Why e-commerce: Reach new markets, flexible and cost

effective to scale business.

Lesson 3: E-commerce business models: Drop ship, Resell, White label & Do-It-Yourself.

Module 2: Product research

Lesson 1: Research: Research before expanding product category or market.

Lesson 2: Google trends: Understand seasonality and demands.

Module 3: E-commerce operations

Lesson 1: Content Management System (CMS): Online app to manage your online store.

Lesson 2: Operation costs: Annual (CMS, domain) and variable (Marketing, shipping, storage).

Module 4: Getting your products online

Lesson 1: 3 types of e-commerce store: Marketplace, Self-managed online store, Social commerce shop.

Lesson 2: Ideal store type: 3Cs. Depends on your Capabilities, where are your Customers on and Competition intensity.

Module 5: E-commerce strategies to grow

Lesson 1: Leverage social: Interact with social audiences, encourage user-generated contents.

Lesson 2: Leverage paid media: Social ads and influencer collaborations.

Lesson 3: Leverage partnerships: Collaborate with other brands to cross-promote.

(2) Financial Management Using Digital Technology Course

Many women entrepreneurs lacked basic information regarding what steps to follow to sustain their businesses through the pandemic. It is essential to educate women entrepreneurs in digital finance so they can manage their businesses more efficiently and acquire credit for their businesses easily. Digitizing financial transactions and other money-related business processes must be learned by women entrepreneurs to ensure the survival of their business.

The course offers the following modules:

Module 1: Fundamental business finance management

Lesson 1: Tips and digital tools for effective business finance management.

Lesson 2: Digitalizing your bookkeeping.

Lesson 3: Personal finances vs. business finances.

Module 2: Profit and loss statement analysis

Lesson 1: Fixed and variable costs.

Lesson 2: Margin and profit calculation.

Lesson 3: Data analysis.

Module 3: Accessing to finance

Lesson 1: Various sources of funding.

Lesson 2: Digital tools for gaining confidence.

Lesson 3: Access to financing.

Lesson 4: 12-month cash flow forecasting.

As benefits of the course, the participants will:

- Learn how to improve financial management, decision-making, and efficiency through automation and reduced human error.
- Have the ability to generate a business profit and loss report and analyze the report to develop a strategy for improving your business's performance.

- Learn how to obtain financing to strengthen and grow their companies.
- Acquire confidence in accessing the sort of capital that is compatible with their business circumstances.

(3) Trust and Cyber Security Course

To overcome the fear of online safety, women entrepreneurs must have fundamental skills and knowledge concerning cyber security. The course must be dedicated to enhancing their basic skills and increasing awareness regarding digital security and data privacy. By providing insights into safeguarding strategies and practices, this course must strive to elevate awareness and knowledge, ultimately leading to the activation of self-protection behaviours in the digital realm.

Module 1: Protecting personal data

Lesson 1: Staying Safe Online.

Lesson 2: Protecting your password.

Lesson 3: Safe habits.

Lesson 4: Don't be a spammer.

Module 2: Protecting business data

Lesson 1: Where do data exist online?

Lesson 2: How to transact online.

Lesson 3: How do we protect other people's data.

Module 3: Think like a hacker

Lesson 1: Identifying a scam.

Lesson 2: Don't get hijacked.

Lesson 3: Don't be spammer.

Lesson 4: Protect your house.

The participants will learn to:

- Protect yourself by protecting your personal data through better password management and understanding of spamming.
- How to protect other people's data by Identifying best practices in collecting customer data, Standard operating processes for employees, Deliver customer satisfaction by protecting their data.
- Strengthen your website and social media accounts and always think it is a scam.

(4) Business Continuity Planning Course

Many businesses were caught unaware of how to sustain their business during the COVID-19 pandemic. For business to recover soon after a crisis, it needs proactive planning that contains strategies for handling uncertainties or disruptions including that of technology. The course on Business continuity planning with the use of technology should provide knowledge and skills for women entrepreneurs to plan for, manage, and overcome crises situations in their businesses brought about by natural and man-made hazards.

The modules and lessons covered in the course are:

Module 1: Overview of business continuity planning

Lesson 1: Business continuity key concepts

Lesson 2: Business continuity planning process

Lesson 3: An example of a Business Continuity Plan

Module 2: Threats and impacts: The need for business risk assessments

Lesson 1: Risk factors and impact assessments

Lesson 2: Mitigating risks factors

Lesson 3: Case examples of business continuity in practice

Module 3: Continuity strategies and planning

Lesson 1: Use of digital technology in continuity strategies

Lesson 2: Action planning and discussion

The participants can:

- Gain familiarity with the goal, objectives, and components of Business Continuity Plan.
- Understand the risks, threats of natural and manmade hazards, and possible impacts.
- Have awareness in risk management strategies in key business operations.
- Outline continuity strategies using relevant planning tools.

(5) Data Analytics Course

Data analytics empowers women entrepreneurs with the ability to derive insights from data, driving informed decision-making. By understanding customer behaviours and market trends, women entrepreneurs can tailor strategies, optimize processes, and enhance customer experiences, resulting in improved business outcomes. This course equips Women Entrepreneurs with essential knowledge in harnessing data analytics for customer development and business expansion. It also encompasses a foundational understanding of various analytics facets including descriptive, diagnostic, predictive, and prescriptive analytics.

The modules and lessons covered in the course are:

Module 1: Data analytics fundamentals

Lesson 1: Profiling game

Lesson 2: Story of Numbers

Module 2: Exploring Analytics Facets

Lesson 1: Types of analytics

Lesson 2: Data insights from analytics technologies

Lesson 3: Explore analytics in action

Module 3: Practical Application for Customer Development

Lesson 1: Reflection of Data Analytics to improve Customer Development

Lesson 2: Discuss Ethical Data Usage and Data Protection

Lesson 3: Developing your Data Analytics action plan.

The benefits of this course is that:

- Participants can build a foundational understanding of data analytics.
- This course delves deeper into the various facets of data analytics, providing participants with the practical knowledge needed to leverage data for customer development.
- Participants can apply their knowledge to their business, focusing on customer development and/or business expansion, delving into ethical considerations when working with customer data and develop action plans as next steps.

Lesson 2 Summary

The courses that are described here are part of the WIFI DX framework that aim to empower women entrepreneurs through a capacity building program that leverages on the use of digital technology and innovation for their businesses to thrive and be transformed towards more improved growth.

Capacitated women entrepreneurs can be supported by an enabling environment where government laws and policies allow MSMEs to develop their potentials at the fullest in the digital era. The policy makers track can complete the capacity building efforts of WIFI DX where policymakers understand the ramifications of digital transformation and its impact on business enterprises and on the role of women in the digital economy.

Something to think about:

- Which courses are useful for my business and why?
- What benefits will I want to draw from the specialized courses?

*****Notes to Trainers**

Find an appropriate quiz in your country to test your student's understanding of the knowledge. Submit quiz data to APCICT.

Lesson 3: Discussion on issues and challenges of women entrepreneurs**Lesson Introduction**

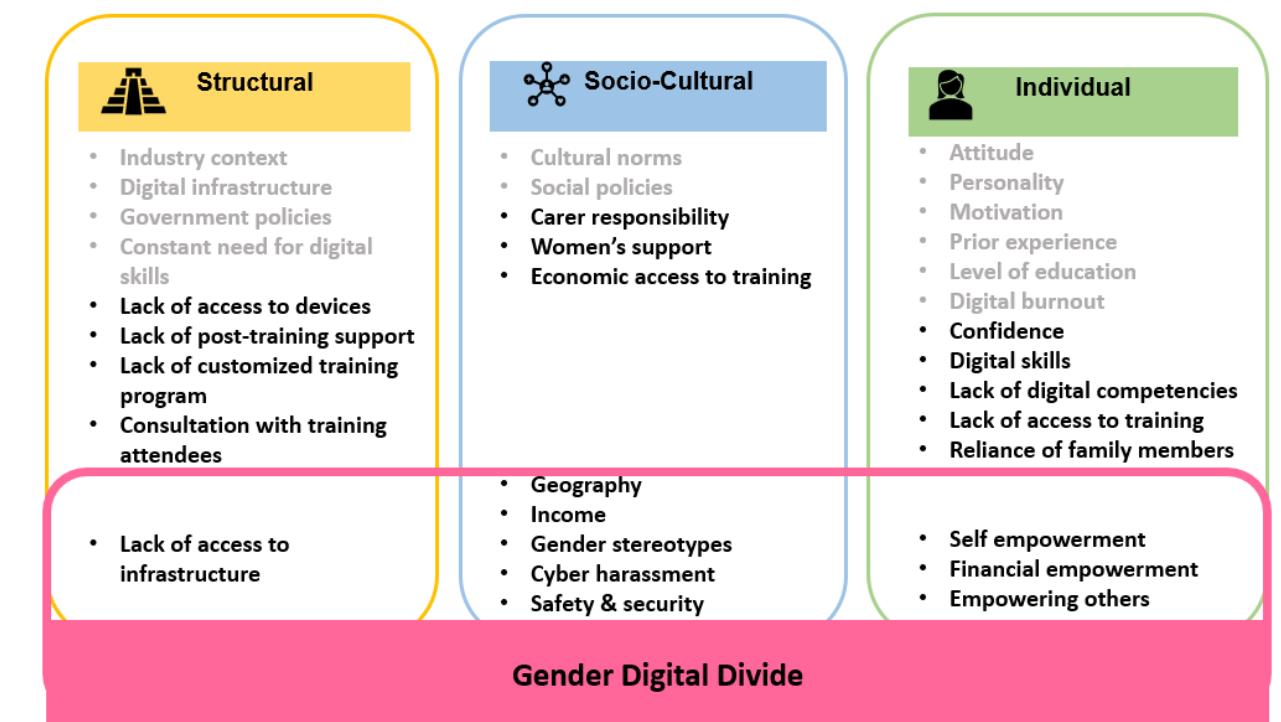
Knowledge about their current situation plays a crucial role in empowering women entrepreneurs towards digital adoption. On one hand, it can lower barriers to entry by recognizing their existing challenges and resources that allows them to identify opportunities in the digital space. It can help realize their adaptability and resilience, thereby opening new avenues that can offer flexibility and efficiency in managing their businesses remotely and in exploring wider market reach.

On the other hand, recognizing their specific needs and constraints, such as technical skills gaps and market knowledge, allows targeted support. Furthermore, understanding their context can serve as an opportunity to gauge their digital readiness.

From the results of various research initiatives, women entrepreneurs tend to participate in sectors that are less capital intensive and less profitable. They are constrained by the lack of digital resources, lack of financial resources, and fear of online safety. Furthermore, socio-cultural norms and beliefs discourage women to participate in the technology sector. Thus, women entrepreneurs in the MSMEs are more vulnerable to the effects of disruptions. (Kulaksiz & Rafi, 2021)

To illustrate the above, the following figure lists the challenges of women entrepreneurs based on a study of Khoo et al. (2023) “Opportunities and challenges of digital competencies for women tourism entrepreneurs in Latin America: A gendered perspective.” The issues and challenges of women were categorized as structural, socio-cultural, and individual.

Figure 4. Structural, Socio-cultural, and Individual Challenges of Women Entrepreneurs



Challenges and opportunities of COVID-19 pandemic to women entrepreneurs

Historically, women entrepreneurs have faced unique challenges, including limited access to resources, networks, and markets. The COVID-19 pandemic exacerbated these challenges as traditional avenues for business, such as physical stores and face-to-face interactions, were severely disrupted. This unprecedented situation prompted women entrepreneurs to swiftly pivot and explore digital avenues to sustain their businesses. The forced closure of physical stores and lockdown measures highlighted the urgency of having an online presence. E-commerce platforms, social media, and digital marketing emerged as vital tools for reaching customers and maintaining revenue streams.

Amidst the disruptions caused by the pandemic, the reliance on digital tools for business survival became evident. Women entrepreneurs found themselves in a landscape where data analytics provided insights to pivot strategies swiftly. Understanding consumer behaviours and market trends through data analysis became essential for adapting offerings and ensuring business relevance.

Remote work and virtual interactions also became integral to business operations. Women entrepreneurs had to adapt to managing teams remotely, communicating with clients virtually, and utilizing digital tools for collaboration. This shift emphasized the importance of digital literacy and skills, prompting women entrepreneurs to upskill and reskill to remain competitive in an increasingly digital landscape. Moreover, the pandemic underscored the potential of digital platforms for expanding market reach. Women entrepreneurs who leveraged online platforms found themselves able to tap into global markets, transcending geographical boundaries and accessing a broader customer base. This shift has the potential to empower women entrepreneurs with newfound opportunities for growth and international expansion.

The crisis also prompted a wave of innovation among women entrepreneurs. The need to address new challenges led to the creation of innovative solutions, such as contactless delivery services, online consulting, and virtual events. This culture of innovation demonstrated that embracing digital technologies can foster adaptability and creativity in the face of adversity. As we emerge from the pandemic, the lessons learned remain invaluable. Women entrepreneurs who had already embraced digital transformation found themselves better equipped to weather the storm, while those who were less digitally adept faced a steeper learning curve. The experience has highlighted that digital transformation is not merely a trend but a necessity for women entrepreneurs. It has emphasized the importance of equipping women with digital skills, access to technology, and support networks that facilitate their digital journeys.

In essence, the COVID-19 pandemic has acted as a wake-up call for women entrepreneurs to accelerate their digital transformation efforts. It has showcased the potential of digital tools for business continuity, growth, and resilience. As women entrepreneurs embrace digital technologies, they position themselves to overcome challenges, seize opportunities, and contribute significantly to the evolving digital economy.

For MSME women entrepreneurs to cope with the changing business environment influenced by digital technology and to recover from the impact of COVID-19 crises, they need to brave and gain new orientation, knowledge, and skills that will create new pathways in rebuilding, transforming, and innovating their businesses. Extending support to their recovery process must be an enabling environment that can be extended by government and other sectors to provide opportunities for women.

Challenges of digital transformation

Digital transformation presents several challenges that women entrepreneurs must navigate to successfully integrate recent technologies and processes. Olmstead (2023) lists some key challenges of adopting digital transformation:

- 1. Lack of digital transformation strategy.** There is a need for a clear digital transformation strategy. Women entrepreneurs and their business organizations may struggle to align their initiatives with their business goals.
- 2. Complex software and technology.** The introduction and integration of complex software and technology can be intricate and challenging. It requires specialized skills and knowledge.
- 3. Adoption of new tools and processes.** When new tools and processes are introduced, such can pose some difficulties, especially if the entrepreneur is accustomed to former tools and processes or legacy systems.
- 4. Continuous evolution of customer needs.** Customers' needs and preferences change over time and with the influx of social and technological changes. Digital transformation must keep pace with the ever-changing needs and expectations of customers.
- 5. Lack of proper IT skills.** A shortage of IT professionals with the necessary skills can hinder the progress of digital transformation efforts.

6. **Security concerns.** As organizations become more digital, women entrepreneurs will face increased cybersecurity risks that must be addressed.
7. **Budget constraints.** Financial limitations can restrict the ability to invest in new technologies and resources needed for digital transformation.
8. **Cultural mindset.** A culture resistant to change can stifle innovation and slow down the transformation process.
9. **Siloed organizational structure.** A lack of collaboration among staff or departments of a business organization can lead to disjointed efforts and inefficiencies.
10. **Measuring ROI (Return on Investment).** Determining the return on investment for digital transformation initiatives can be challenging, making it hard to justify the expenditure.

These challenges highlight the importance of strategic planning, skilled personnel and a culture that embraces change to overcome the hurdles of digital transformation.

ACTIVITY FOR PARTICIPANTS

In order to stay current with the challenges of women entrepreneurs, this segment will focus on understanding the real challenges of women entrepreneurs and opportunities of digital transformation for women entrepreneurs.

Participants will be asked to reflect and share about their experiences on challenges and opportunities in their business guided by trainers/facilitators. The guided activity will use a template that consists of questions to facilitate discussion and summary of the activity.

Instructions.

- Depending on time availability and class size, activity can be conducted in groups or individually:

Variable Cost	Fixed Cost
<ul style="list-style-type: none"> • 5 to 10 groups depending on the size of the class (each group will be assigned distinct ID e.g. color) • Each group member to have a role: e.g. leader, secretary, presenter, resource person ... • Each group to discuss and use the metacards or large sticky notes to write their answers to 3 questions. • Pin the metacards or tuck the sticky notes with answers on the following categories labelled on the Manila/craft paper: <ol style="list-style-type: none"> 1. Funding or finance 2. Resources 3. Technology 4. Skills 5. Policy 6. Family issues 7. Others (please explain) • Each group are given 5 minutes to present their answers. • Trainers are to clarify and explain how Digital Transformation/Innovation can help groups/participant reduce their challenges. • Trainers are to advice what opportunities can Digital Transformation/Innovation offer based on the cases brought up by participants. 	<ul style="list-style-type: none"> • Everyone will be provided with a pad of sticky notes. • Write answers to 3 questions posed by the facilitator. • Tuck the sticky notes with answers on the respective categories labelled on the Manila/craft paper. <ol style="list-style-type: none"> 1. Funding or finance 2. Resources 3. Technology 4. Skills 5. Policy 6. Family issues 7. Others (please explain) • Selected individuals are given 5 minutes to present their answers. • Trainers are to clarify and explain how Digital Transformation/Innovation can help participants reduce their challenges. • Trainers are to advice what opportunities can Digital Transformation/Innovation offer based on the cases brought up by participants.

2. Guiding Questions

- a. What are your current issues and challenges as a woman entrepreneur? Write the three most challenging issues.
- b. What opportunities can you derive/draw from the issues and challenges with digital transformation and/or innovation?
- c. Do your country's policies to support you in your journey as woman entrepreneur? If yes, why? If not, why?

Note:

Implementing Organization to ensure that all answers given by participants/groups in this activity are keyed into Excel spreadsheet to be sent/emailed to APCICT/Consultants (Irene and Maria).

Businesses can overcome the challenges of digital transformation by adopting a strategic approach that addresses the key issues they face. Rieva Lesonsky of Forbes (2023) and Brian Eastwood of MIT Management (2023) list some ways businesses can tackle these challenges:

1. **Develop a clear vision.** Establish a shared vision for digital transformation that aligns with the business' goals and objectives.
2. **Embrace change management.** Implement comprehensive change management strategies to support and guide employees through the transition.
3. **Invest in training.** Provide training and development opportunities to equip oneself and your employees with the necessary digital skills.
4. **Foster a digital culture.** Encourage a culture that encourages innovation, experimentation, and willingness to adapt to new technologies.

5. **Enhance collaboration.** Promote cross-functional collaboration to break down silos and encourage a more integrated approach to digital transformation.
6. **Select the right technology.** Select technologies that are scalable, flexible, and align with the business' current and future needs.
7. **Strengthen cybersecurity.** Prioritize cybersecurity to protect against threats and build trust with customers.
8. **Allocate adequate resources.** Ensure sufficient budget and resources dedicated to digital transformation initiatives.
9. **Assess progress and measure ROI.** Establish metrics to measure the progress and impact of digital transformation in your business.
10. **Seek external expertise.** Consider getting partners, external experts or vendors who can provide specialized knowledge and support.

By addressing and contemplating on these areas, businesses can increase their chances of a successful digital transformation, enabling your business to stay competitive and responsive in a rapidly evolving digital landscape.

Lesson 3 Summary

- Opportunities, issues, and challenges are part of WE business transformation journey.
- Trainers are to clarify and explain how Digital Transformation/ Innovation can help groups/participant reduce their challenges. Trainers to advice what opportunities can Digital Transformation/ Innovation offer based on the cases brought up by participants.
- Lessons can be learned from the issues and challenges experienced by women entrepreneurs.
- Implementing Organization to ensure that all answers given

by participants/groups in this activity are keyed into Excel spreadsheet to be sent/emailed to APCICT/Consultants (Irene and Maria).

Summary of Module 1

Digital transformation can make women led businesses more effective and efficient. It can enhance customer engagement, facilitate informed decision making, market reach and global presence, business efficiency and cost reduction.

Digital transformation fosters innovation and agility in business operations. Women entrepreneurs can quickly adapt to market changes, experiment with new ideas, and implement changes based on customer preferences and feedback.

Innovation is important to survive business competition. Innovation is a product, service, business model, or strategy that is both novel and useful. Innovations need not be major breakthroughs in technology or new business models; they can be as simple as upgrades to a company's customer service or features added to an existing product.

Based on research, this segment focused on the discussions about current challenges and opportunities of women entrepreneurs as an update of our knowledge. For us to understand opportunities, issues, and challenges are part of their business transformation journey. Lessons can be learned from the issues and challenges faced by women entrepreneurs. It can become opportunities that can guide them in reducing the challenges.

Together with this Foundation Course, the WIFI DX program included specialized individual courses such as E-Commerce and Digital Marketing, Financial Management Using Digital Technology, Trust and Cyber Security, Business Continuity Planning, and Data Analytics for Women Entrepreneurs to learn and take advantage of the flexibility and agility afforded by digital tools for swift adaptation and market expansion. These courses will strengthen capacities and provide digital empowerment of women entrepreneurs thus creating an inclusive digital economy where women can participate in shaping the future of business.

MODULE 2: DIGITALLY EMPOWERED WOMEN ENTREPRENEURS: APPLICATIONS & LESSONS LEARNT

Introduction to Module 2

MSMEs or micro, small, and medium enterprises are largely the business activities taking place in any country. This module focuses on presenting how digital transformation and business innovation benefited women entrepreneurs in the MSME sector.

The women entrepreneurs in the following case examples pursued and implemented business innovation and digital transformation that resulted in business growth and success.

Objectives

To illustrate cases of women entrepreneurs in their innovation and transformation journey.

To draw lessons from the experiences of women entrepreneurs in the various case briefs to encourage and motivate our participants in their entrepreneurial journey.

Outcomes

The presentation of real-world cases encourages and motivates participants to adopt digital transformation and innovation.

The module key message

Women entrepreneurs were able to overcome their own issues and challenges from these case examples and identify opportunities to initiate innovation and business transformation in their businesses.

For class discussion, three (3) case briefs of women entrepreneurs that used digital technologies and innovation in their businesses are presented here to elicit lessons learned and benefits of digital transformation and innovation.

1. **Micro business**
2. **Small business**
3. **Medium business**

Lesson 1: Women entrepreneur in MSME businesses

Lesson Introduction

Women entrepreneurs are increasingly leveraging digital transformation to innovate and grow their businesses. Here are a few examples that show how women entrepreneurs in the micro, small and medium enterprises (MSMEs) are embracing digital tools to overcome traditional barriers and succeeded in the competitive business landscape.

Case 1: Micro-scale Entrepreneur

Personal profile

Chinchin is a woman entrepreneur engaged in micro-scale business. She is within the age range of 27 to 30 years old, educated, and completed her tertiary education in a university with degree of BS Industrial Engineering. She hailed from a family of micro entrepreneurs. Currently she is married with a child.

Business profile

Her business is in the food industry, and she has run her business for 5 years. She sells processed food and hometown traditional pastries that she knows how to make herself. She also re-sells goods made by other micro-sellers, such as food condiments and seasoning, fashion accessories and cosmetics. She started with a business partner, a classmate from the university where she graduated. She and her business partner registered their business in 2016. She has a physical shop and two staff who helped her operate the business from 9:00 am to 8:00 pm.

Business challenges

1. **Lack of capital.** Her capital was initially sourced from her savings and business partner. However, to increase her store inventory and to print flyers and other marketing and promotional activities, she borrowed money from her parents. However, she felt that she needed to boost her capital so she could sell more goods.

She also needed to upgrade her digital gadgets and software applications that can help her organize her sales, marketing, and documentation of her business finance and expenditures. To inject more money into her business, she worked as a part-time lecturer in a nearby university.

2. **Lack of opportunities for loans.** She applied for loans in banks but was always rejected due to lack of documents to show her ability to pay loans.
3. **Short of trained workers.** She has difficulty maintaining a skilled staff since she cannot afford to pay the prevailing wage. She can only hire unskilled workers and must train them often.
4. **Lack of marketing skills.** Since she lacked entrepreneurial education and experience, she has inadequate knowledge in promoting her business. She wanted to increase her customer base, as well as promote her business online.
5. **Deceitful customers.** Some customers tricked her into paying the wrong amount, if not claimed that they have paid when they have not.
6. **Time management.** She barely sleeps 8 hours a day. Her time is spread out to her business, her part-time job, and taking care of her family.
7. **Limited support from family.** Her parents and siblings do not meddle in her business and family life, even if she asks for help. Her husband works full-time in a company and rarely helps her in childcare. Her aunt sometimes helps her look after her child, while her cousin at times watches over her store when needed.
8. **Partner's abscondment.** After a year in business, her partner withdrew from the business and left her on her own.

Benefits of digital transformation and innovation

She acquired internet subscriptions and used social media platforms (Facebook and Instagram) to promote her products. As an entrepreneur she self-learned skills to build her own Facebook page and Instagram. This resulted in enabling her to promote her business online, her customers increased, her income doubled because she was able to reach more customers at the same time.

Case 2: Small-scale Woman Entrepreneur.

Personal profile

Mika is a small-scale woman entrepreneur aged between 30 -33 years old. She completed her tertiary degree in Marketing at a prestigious university. Her parents are also into small and medium-scale businesses, and she is the eldest of two children in the family. She is currently unattached and have no children.

Business profile

Mika's business is online retail selling of digital gadgets. She is a solo entrepreneur. Her business was registered sixteen (16) years ago with an initial capital of US\$ 400. Initially, she handled everything by herself. She managed all business processes from order handling; payment receipt and confirmation; delivery; technical advisory on product specifications, features, and functionality; and ordering from suppliers. She later got a helper to do nearby deliveries. She rolled her capital and profits investing on the development and creation of her own website and later developed her store's e-Commerce platform. Her business net worth at the time of the interview (2016) was pegged at more than US\$ 200,000 and employing more than 60 personnel.

Business challenges

1. **Closure of an online selling platform.** The online selling platform she used in her initial business ventures closed. To make sure her business continued, she migrated her business marketing and transactions in a social media network.
2. **Investment in her own e-commerce platform.** She ambitiously created her own website and e-Commerce platform that challenged her financially and technologically. Nevertheless,

she did not regret making this decision as she was able to quickly recover her investments.

- 3. Creating a market base in the online shopping market.** At that time when she started, the market was not ready yet for the online market. Majority of the population were used to physical and in-person shopping. She had to contend with the small segment of the population who were already exposed to online shopping. Since she was adept and knowledgeable about her digital products, she was able to provide thorough information about the products she sells. Gradually, she was able to understand her customers' preferences and budget range. She, however, learned from her previous experience from the closed online selling platform, that disruptions in the digital world can always pose a challenge to online selling businesses. Moreover, in her business journey, she also understood the ever-changing needs and preferences of customers.
- 4. Inventory management.** The growth of her business challenged the businesses' physical storage capacity, as well as the system that can manage her inventory. She invested in the procurement and development of her online inventory management system, and also alerted herself from the changing business process and integration systems.
- 5. Maintaining quality customer service.** To maintain her business reputation, as it grew, personnel increase was required, both in numbers and in terms of quality-of-service delivery. Customers' interests and inquiries increased and about 70% of personnel work was devoted to customer service and communications. To alleviate most of her staff for "frequently-asked-questions", her business invested in artificial intelligence that can handle customer inquiries. With this investment, it increased her employees' efficiency and focused more on responding to difficult questions to answer.

6. **Logistics and payment management system.** As sales increased, the challenge of payment processing and efficient delivery logistics became a reality. She had to digitalize and require a fully integrated payment and delivery system. Eventually, Mika had to outsource and partner with financial payment processing and logistics partners.
7. **Fraudulent online activities.** With the kind of business Mika has, online fraud and scammers are commonplace. She has had repeated fraudulent incidents in her business which prompted her to install a more powerful security applications and the assistance and support of police authorities to solve the increase in online crimes.

Benefits of business transformation & innovation

The case of our small-scale entrepreneur showed that she maximized the use of digital technology and digital innovation. Her entrepreneurial journey gave rise to:

1. **Increase of network and market base.** With her own online business (website and social media), her business presence was made real and global. The migration to social media networks, creation of her business website, and her own e-Commerce platform were good decisions which helped her business provide good quality service directly to her customers and gained better reputation for her business, bigger customer network and broader market base.
2. **Increase in suppliers and partners.** This case was not only able to bring business value to her customers but also to her suppliers and key partners. Acquiring an inventory management system enabled her to address inventory management challenges. Tapping online financial technology companies, and logistics enterprises facilitated online payment processing and logistics.
3. **Faster solutions to problems encountered online.** Employing artificial intelligence enabled her to use business data to her advantage. It relieved cumbersome tasks from her employees and made them focus more on strategic customer engagements

thereby building more personalized services for their valued customers. Furthermore, investing in more up to date applications helped her minimize fraudulent online transactions.

In the process of her digital business journey, this small-scale business of Mika is now on a full-scale ICT based operations from order taking, marketing, customer servicing via phone and chat, payment processing, advertising, post-purchase assistance, logistics and delivery, and financial accounting. Furthermore, her business is geared up towards a medium scale category with her increased business size and net worth.

Case 3: Medium-scale Woman Entrepreneur

Personal profile

Angelina is a medium-scale woman entrepreneur in her mid 30s. Both her parents are self-employed and she is the middle child of 3 siblings. She completed her tertiary education in Bachelor of Science Information Systems & Computer Science

Business profile

Angelina's business is in the education industry and was established 13 years ago. She worked with famous digital companies before she set up her own business. She wanted to use technology to help children connect with each other across borders and to learn from each other through her Social Networking Platform. Her education technology business offers a variety of services from their platform which mainly helps schools manage their operations. At the time of interview, she has managed to capture a third of her country's market share.

Business challenges

- 1. Raising funds at initial stage.** She used her own savings to start her business. It was difficult to raise funds at the start of business. Most investors prefer to invest in male entrepreneurs because of the stereotype that women are less ambitious and aggressive especially in growing technology businesses. After a year she was able to secure more funding from angel investors and venture capitalists since she had to work doubly hard to prove her case.

2. **Applying technology in real life problems.** Servicing end users is a common challenge by ensuring that her platform and application is able to address the customers' needs and wants.
3. **Balancing customer needs and organizational needs.** Accommodation of customer's specific needs and the common needs of majority of the users was a challenge and if the solutions are aligned with internal development goals.
4. **Predictability of users.** The customers tend to require non-predictable features in their systems. She had to manage the expectations of users in the same industry by influencing their needs to improve predictability.
5. **Competition.** Similar technologies, ways to implement the systems, and tradeoffs are available, and presenting a competitive advantage of her business is a challenge. The entrepreneur had to develop useful features and better quality service to show her experience and expertise.
6. **Setting up standards and ensuring good communications.** Setting up proper processes and improved communication channels must be in place for cohesion and effective delivery. Objectives and key results are her preference to track results.
7. **Improvement of skills and knowledge.** She has to be updated to relevant online tools to ensure that her team-developers and finance- are able to improve their skills, communication, budgeting, and aligned with industry best practices.
8. **Improvement of entrepreneur's mental strengths as business grows.** She has to maintain and improve her mental strengths as she describes her emotional turbulence when running her business. She had to hire a mentor and life coach to address the challenge.

- 9. Sustainability of business.** She realized that going global will be able to help her business to develop larger markets and improve sustainability.

Benefits of digital transformation and innovation

- 1. Economy's ICT policies.** Angelina was able to leverage the supportive policies of her government for business start ups. This mechanism enabled exposures to world-class start up development of platforms.
- 2. Customer/product vision.** Her business has a single, integrated vision of customers and products. Through research and development, she continuously improve her platform and application, while listening to the needs and wants of her customers.
- 3. High speed innovation.** To stay ahead of the competition, entrepreneurs must factor speed and creativity to become competitive in the global economy. She believes that it is necessary to innovate to focus on developing useful features and to have better and faster systems to win the competition.

ACTIVITY

Upon presentations of the 3 cases of women entrepreneurs, trainers to guide participants in the lessons learnt activity and discussions. Trainers to provide accurate answers in reply to questions raised by participants.

Guiding questions to elicit lessons learned:

1. What were common factors in the:
 - a. Personal profile of the women entrepreneurs?
 - b. Business profile of the women entrepreneurs?
 - c. Benefits of digital transformation and innovation?
2. What are your personal insights from the above cases in relation to your own businesses?

***Notes to Trainers

The case studies here are for references. You may replace relevant case studies if necessary. Other reference materials for relevant cases and frameworks can be found in the Annex section.

The case briefs illustrate how digital technologies can empower women entrepreneurs by expanding their market presence and improving their business operations. Also, these examples can demonstrate how women entrepreneurs are leveraging digital innovation to create opportunities, overcome traditional barriers, and gain a competitive edge in their respective industries.

Here is a summary of the key points:

- **Gender digital divide:** The case examples discussed the impact of information and communications technology (ICT) on women's empowerment, highlighting the nuances of gender digital divide that affects women entrepreneurs.
- **Digital empowerment:** The case briefs emphasize how ICT creates new opportunities for women by facilitating knowledge sharing, networking, and e-Commerce, contributing to their economic and social empowerment.
- **Barriers and support:** The study explores the barriers faced when adopting digital technologies, the role of government and other stakeholders in providing ICT-related educated training, and support.
- **Economic impact:** Digital technologies are portrayed as catalyst for economic growth, offering women entrepreneurs various business opportunities and leading to their economic empowerment.

Lesson 2: Lessons Learnt

From various research and recent studies, lessons that can be culled about cases of women entrepreneurs who leveraged their business using

digital technology and innovation, are as follows:

A. Women entrepreneurs in the micro-scale businesses show that they have diverse range of characteristics and face various challenges.

Some common aspects of their profile categories in education and skills, motivation and risk aversion, family obligations and gender bias, financial constraints, sector and industry, networking and support, lack of formal support, adaptability, and resilience.

1. Education and skills:

- **Varied educational backgrounds:** Women micro-entrepreneurs come from diverse educational backgrounds. Some have formal education, while others may have acquired skills through practical experience.
- **Limited formal business training:** Many women entrepreneurs lack formal business training, which can impact their ability to manage and grow their businesses.

2. Motivation and risk aversion:

- **Motivation:** Some women start businesses out of necessity due to limited employment opportunities, while others choose entrepreneurship as a deliberate career path.
- **Risk aversion:** Women tend to be more risk-averse (reluctant to take risks), which can influence their business decisions and willingness to invest.

3. Family obligations and gender bias:

- **Family responsibilities:** Balancing family obligations with business operations is a common challenge. Women often juggle household chores, childcare, and business responsibilities.
- **Gender bias:** Social norms and biases may affect women's access to resources, networks and opportunities.

4. Financial constraints:

- **Limited access to finance:** Women entrepreneurs often faced

challenges in accessing formal financial services, such as loans or credit.

- **Bootstrap approach:** Many micro-scale women-led businesses rely on personal savings or informal sources of funding.

5. Sector and industry:

- **Diverse sectors:** Women entrepreneurs operate in various sectors, including retail, food, handicrafts, and services.
- **Informal economy:** Micro enterprises are often part of the informal economy which presents both opportunities and challenges.

6. Networking and support:

- **Social networks:** Women entrepreneurs benefit from peer support and networking within their communities.
- **Lack of formal support:** Formal support systems (such as business associations or mentorship programs) may be limited.

7. Adaptability and resilience:

- **Resource constraints:** Women micro entrepreneurs learn to adapt and innovate with limited resources.
- **Resilience:** Despite challenges, many women entrepreneurs demonstrate resilience and determination.

It is essential to recognize the diversity within this group, as each woman's entrepreneurial journey is unique. Addressing gender-specific barriers and providing targeted support can empower women to thrive in micro-scale businesses.

B. Women entrepreneurs have increasingly embraced digital technology to enhance their businesses. Some of the ways they utilize digital tools are as follows:

1. Online presence and marketing:

- **Social media:** Women entrepreneurs leverage platforms like Facebook, Instagram, and LinkedIn to promote their products or services, reach a wider audience, and engage with customers.

- **Websites and blogs:** Creating and maintaining a business website or blog allows them to showcase their offerings, share success stories, and provide valuable content.

2. E-Commerce and online sales:

- **Online marketplaces:** Women micro entrepreneurs use platforms like Etsy, Amazon, or local e-Commerce sites (Shopee, Lazada, Carousel) to sell their products.
- **Mobile payment apps:** Digital payment apps enable seamless transactions, making it easier for customers to buy from them.

3. Communication and customer service:

- **Email:** Effective communication with customers, suppliers, and partners is crucial. Email helps manage inquiries, orders, and feedback.
- **Chatbots:** Some businesses use chatbots on their websites or social media to provide instant responses and support.

4. Financial management:

- **Accounting software:** Digital tools like QuickBooks, Wave, or Xero help manage finances, track expenses and generate invoices.
- **Mobile banking apps:** Women entrepreneurs can monitor transactions, transfer funds, and pay bills conveniently.

5. Learning and skills development:

- **Online courses and webinars:** Access to digital learning platforms allows them to acquire new skills, stay updated, and improve business practices.
- **Video tutorials:** Many women entrepreneurs learn about marketing, product photography, or other business aspects through YouTube videos.

6. Networking and collaboration:

- **Online communities:** Joining industry-specific forums, Facebook

groups or LinkedIn networks provides opportunities for collaboration, mentorship, and knowledge sharing.

- **Virtual events and conferences:** Attending webinars and virtual conferences helps them connect with peers and experts.

7. Inventory management and supply chain:

- **Inventory software:** Digital tools help track stock levels, reorder products, and manage inventory efficiently.
- **Supplier portals:** Women entrepreneurs communicate with suppliers, place orders, and monitor deliveries through online platforms.

8. Data analytics and decision-making:

- **Google Analytics (manual analytics):** Understanding website traffic, user behavior, and conversion rates helps optimize marketing strategies through Descriptive Analytics.
- **AI & machine learning (automated analytics):** Improving business insights, enhancing decision-making processes and overall operational efficiency. Enabled personalized interactions with customers, tailoring products, marketing messages based on individual preferences and behavior through Predictive and Prescriptive Analytics.

9. Remote work and flexibility:

- **Cloud storage and collaboration tools:** Women entrepreneurs can access files, collaborate with team members, and work remotely.
- **Virtual meetings:** Platforms like Zoom or Microsoft Teams facilitate communication with clients, partners, and employees.

10. Cybersecurity awareness:

- Women entrepreneurs must be aware of cybersecurity risks, protect customer data, and ensure safe online transactions.

The adoption of digital technology varies based on factors like location, industry, business stage, size, and individual preferences. Women entrepreneurs who embrace digital tools gain a competitive edge and enhance their business operations.

C. The use of digital technology and business innovation has significant benefits for micro, small, and medium enterprises (MSMEs), particularly those led by women.

Exemplified by the case briefs and other research sources on women entrepreneurs, some of the benefits and advantages of digital adoption in MSME women-led businesses are:

1. Improved productivity

Digital tools streamline processes, automate tasks, and enhance efficiency. MSMEs can manage inventory, sales, and customer interactions more effectively leading to increased productivity.

2. Creation of new revenue sources

Digital platforms enable MSMEs to reach a broader audience. Women entrepreneurs can expand their customer base through e-commerce, social media, and online marketplaces. This diversification often results in additional revenue streams.

3. Enhanced brand awareness

Digital marketing allows MSMEs to build and promote their brand online. Women entrepreneurs can leverage social media, content marketing, and search engine optimization (SEO) to raise awareness about their products or services.

4. Access to global markets

Digital technology breaks down geographical barriers. Women-led MSMEs can participate in international trade, connect with customers worldwide, and explore export opportunities.

5. Cost savings

Adopting digital tools reduces operational costs. Cloud-based solutions, virtual communication, and online collaboration minimize the need for physical infrastructure and travel expenses.

6. Data-driven decision-making

Data analytics provide valuable insights. Women entrepreneurs can analyze customer behavior, track sales trends, and make informed decisions based on data.

7. Innovation and adaptability

Embracing digital transformation encourages creativity and innovation. Women-led MSMEs can adapt to changing market conditions, explore new business models, and stay competitive.

8. Financial inclusion

Digital payment systems enable easier financial transactions. Women entrepreneurs gain access to formal banking services, credit, and investment opportunities.

9. Networking and learning opportunities

Online platforms connect MSMEs with industry peers, mentors, and training resources. Women entrepreneurs can learn from others, attend webinars, and stay updated on industry trends.

10. Empowerment and equal opportunities

By leveraging digital technology, women entrepreneurs can break traditional barriers. They gain independence, confidence, and equal opportunities in the business world.

In summary, digital technology and business innovation empower women led MSMEs, enhance their competitiveness, and contribute to economic growth. Governments and organizations supporting women entrepreneurs should continue supporting initiatives that promote digital literacy, access to technology and gender-inclusive entrepreneurship.

Participant's Reflection:

- a. Does my situation – challenges and opportunities - resonate with other women entrepreneurs?
- b. What can be the benefits of using digital technology and/or innovation in my business?

Summary of the Module 2

The real-life case briefs of women entrepreneurs from the micro, small, and medium enterprises at any business stage and of diverse industries presented in Module 2 showed that they were able to adopt digital transformation and innovation in their businesses. It also showed that they were able to benefit substantially from digital adoption and notably helped them enhance their competitiveness, and consequently contributed to their businesses' economic growth.

Lessons learned from these case briefs and similarly from other research initiatives were as follows:

1. Women entrepreneurs in the micro-scale businesses show that they have diverse range of characteristics and face various challenges and opportunities in education and skills, motivation and risk aversion, family obligations and gender bias, financial constraints, sector and industry participation, networking and support, and in adaptability and resilience.
2. Women entrepreneurs have increasingly embraced digital technology to enhance their businesses. Some of the ways they utilize digital tools are in the areas of online marketing, e-Commerce and online sales, communications and customer service, financial management, learning and skills development, networking and collaboration, inventory and supply chain management, data analytics for decision-making, remote work flexibilities, and cybersecurity awareness.
3. The use of digital technologies and business innovations has significant benefits for women-led micro small and medium enterprises. The observed benefits included improved productivity, creation of new revenue sources, enhanced brand awareness, access to global markets, cost savings, data-driven decision making, innovation and adaptability, financial inclusion, networking and learning opportunities, empowerment, and equal opportunities.

MODULE 3: IDEATION AND ACTION PLAN

Introduction

To fortify the knowledge gained from Modules 1 and 2, participants are encouraged to apply their newly acquired knowledge on digital adoption or business innovation. They will prepare an action plan that integrates an enhanced perspective of their business by using a template that can facilitate their planning process.

Objectives

- Determine how women entrepreneurs apply business innovation or digital transformation to their business.
- Create an action plan that participants can use to improve their business using business innovation and/or digital transformation.
- Present the action plan in a guided discussion.

Learning Outcomes

Participants prepare an action plan that they can apply in their business.

Key messages

The module key messages: An action plan can guide participants to apply what they learned from the course.

Lesson 1: Business application: Ideation & action planning

What is ideation? How do we create an action plan that can initiate and enhance digital transformation and innovation in one's business? This will be the focus of Module 3. Participants are to come up with ideas and action plans to use digital transformation and/or business innovation for their own business.

Templates and guide questions are to facilitate ideas, discussions, and action planning.

What are other templates that can be used that will help the entrepreneur create an action plan to guide an entrepreneur to plan and prepare for digital transformation and innovation?

Ideation

If you recall, ideation is one of the phase or process of design thinking approach, which we learned in Module 1.

Simply put, ideation is the creative process of generating, developing, and communicating ideas. It is a vital step that does not necessarily require a completely new idea, but rather, it can involve solving specific problems, exploring alternative ways to implement solutions to new opportunities.

Ideation helps you ask relevant questions with a strong focus on your customers, their needs, and your insights about them. Go beyond obvious solutions to increase the chances of new potential solutions.

Ideation can bring new perspectives and strengths, seeing different viewpoints to a richer pool of ideas. It can lead to unexpected insights and novel approaches. And such exploration may help you discover untapped opportunities. You may consider tapping a variety of options, different angles and approaches to problem solving, as well as exploring uncharted territory.

Ideation is not just about brainstorming, it is also about fostering creativity, challenging assumptions, and sparking innovation. It can be a powerful tool to kickstart your action planning process.

Action plan

From stock knowledge you may recall that an action plan is a document that outlines the specific tasks you need to complete to achieve a particular goal. It breaks down the process into actionable steps, assigning a timeline – start and end dates – to each task.

The usual steps of action planning include setting of SMART Goals (specific, measurable, achievable, relevant, and time-bound), creating a list of actions, setting of a timeline, appropriately designating resources (people, tools, funds) needed for each action, monitoring of progress, which means regularly reviewing set milestones, goals, and objectives of your action plan.

There are many templates that can be used for action planning. We will be covering three model templates, namely the Business Model Canvas (BMC), Lean Business Model Canvas (or Lean Canvas), and Free Hand Action Plan Template.

A. Business Model Canvas (BMC)

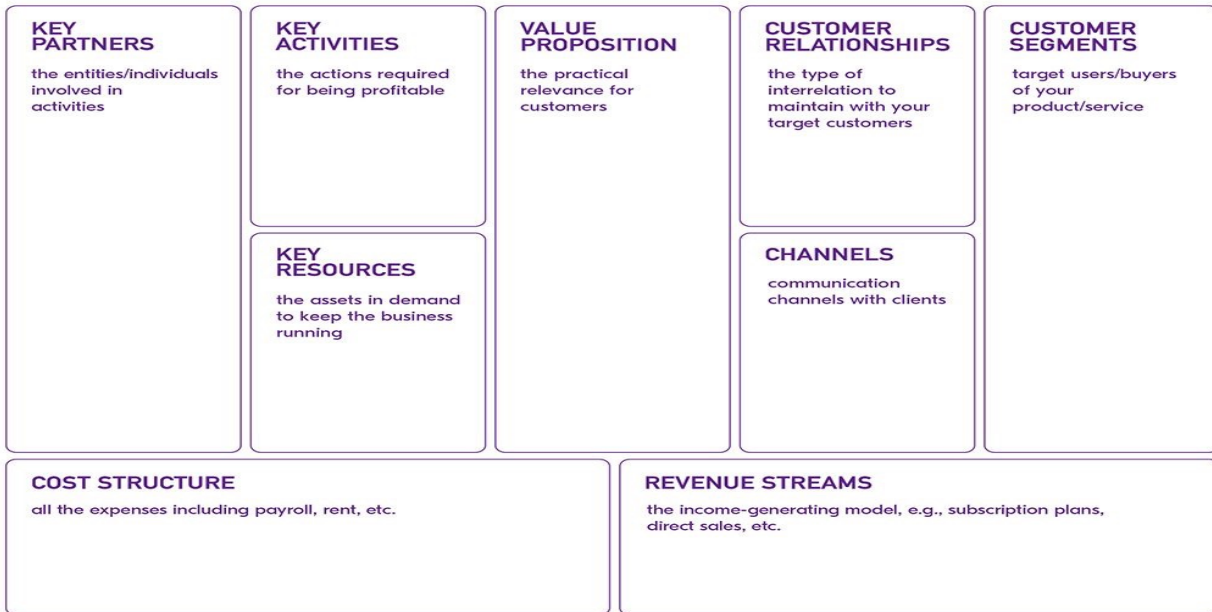
The Business Model Canvas is one of those templates that can be used since it is a powerful tool than serve as an action plan for women entrepreneurs.

The BMC provides a visual overview of your entire business on a single canvas. It condenses complex business concepts into nine (9) key building blocks (or boxes). As an entrepreneur one can use the template to distill your business idea to the essentials, ensuring that you see the big picture without getting lost in the details.

The nine key building blocks of the BMC consists of the following components:

1. **Customer Segments:** Identify your target audience.
2. **Value proposition:** Define what unique value your business offers to customers.
3. **Channels:** Determine how you will reach and interaction with your customers.
4. **Customer relationships:** Specify the type of relationships you will establish with your customers.
5. **Revenue streams:** Understand how your business generates income.
6. **Key resources:** List the essential assets and resources your business needs.
7. **Key activities:** Describe the critical tasks your business performs.
8. **Key partners:** Identify external collaborators or partners.
9. **Cost structure:** Analyse your business expenses.

Figure 5. Business Model Canvas template



Use the canvas to collaborate and brainstorm ideas. Create a one-page pitch deck to attract potential partners or investors. Use it also as a foundation for a more detailed business plan. Simplify and test your business ideas, validate assumptions, and identify necessary resources for business start-up or growth.

For women entrepreneurs the BMC offers a structured approach to identify market gaps and tailor value propositions. It can allocate resources efficiently, build sustainable revenue streams, forge strategic partnerships, and navigate cost considerations.

Having a document like the BMC, you can create a clear roadmap for your business, ensuring that you do not lose sight of your business vision and goals, while tackling day to day challenges.

Like any other plan, the BMC evolves as your business grows and adapts to changing circumstances. So, at this point, we can use this template to scale up our existing venture and use it as your dynamic action plan.

B. Lean Business Model Canvas

Another planning tool is the Lean Business Model Canvas (or Lean Canvas). The following explains what the Lean Business Model is.













Lean Canvas is a one-page business model developed by Ash Maurya. It is designed to replace the traditional and often complex business plan with a more concise and focused approach.

The Lean Canvas template condenses the essential elements of a business plan into nine key components, allowing entrepreneurs to communicate their business idea and strategy quickly and effectively.

The Lean Canvas holds significant importance in the realm of business planning. Its simplified and visual nature helps entrepreneurs gain a clear understanding of their business model and identify potential pitfalls early on.

By using Lean Canvas, entrepreneurs can align their ideas with customer needs, develop a unique value proposition, and analyze the viability of their business concept. It serves as a valuable guide throughout the business planning process, promoting agility, effective resource allocation, and risk mitigation.

Figure 6. Lean Business Model Canvas

The Lean Canvas		Designed for:	Designed by:	Date:	Version:
		Startup Name	Name1, Name2, ...	DD/MM/YYYY	X.Y
Problem  Top 3 problems	Solution  Top 3 features	Unique Value Prop.  Single, clear and compelling message that states why you are different and worth buying	Unfair Advantage  Can't be easily copied or bought	Customer Segments  Target Customers	
Existing Alternatives  List how these problems are solved today.	Key Metrics  Key activities you measure	High-Level Concept  List your X for Y analogy (e.g. YouTube = Flickr for videos)	Channels  Path to customers	Early Adopters  List the characteristics of your ideal customers.	
Cost Structure  List your fixed and variable costs. Customer acquisition costs Distribution costs Hosting People Etc.			Revenue Streams  List your sources of revenue. Revenue Model Life Time Value Revenue Gross Margin		

Components of Lean Canvas

To effectively use Lean Canvas, it is crucial to understand its various components. Each element plays a vital role in shaping the business model and strategy.

1. Problem

The problem component of Lean Canvas involves identifying the core challenges or pain points faced by customers. By clearly defining the problem, entrepreneurs can better understand the needs and motivations of their target audience.

Identifying the customer's pain points

To create an effective Lean Canvas, it is essential to identify the specific pain points experienced by the target customers. Understanding these pain points allows entrepreneurs to develop solutions that address their customers' needs more precisely.

Describing the problem succinctly

The problem component of the Lean Canvas requires a concise description of the identified problem. By condensing the problem statement, entrepreneurs can articulate it clearly and communicate it effectively to stakeholders and team members.

2. Solution

The solution component of Lean Canvas focuses on presenting a unique solution to the identified problem. It involves developing a product or service that effectively addresses the pain points of the target customers.

Presenting a unique solution to the problem

Entrepreneurs must present a unique and innovative solution to the problem they have identified. The solution should differentiate their product or service from competitors and provide a clear advantage to the customers.

Focusing on the value proposition for customers

The solution component of Lean Canvas requires entrepreneurs to clearly define the value proposition their product or service offers to customers. By highlighting the unique benefits and advantages, they can attract and retain their target audience effectively.

3. Key metrics

In the key metrics component of Lean Canvas, entrepreneurs define the metrics they will track to measure the success of their business. These metrics help gauge the progress and effectiveness of the implemented strategies.

Defining the metrics to track success

Entrepreneurs need to identify and define the key metrics that align with their business objectives. These metrics could include customer acquisition cost, customer lifetime value, conversion rates, or any other relevant data points that provide insight into the business's performance.

Identifying data points to measure progress

The key metrics component of Lean Canvas emphasizes the identification of crucial data points that are essential for measuring progress. By tracking and analyzing these data points, entrepreneurs can make informed decisions and adapt their strategies as needed.

4. Unique value proposition

The unique value proposition component of Lean Canvas highlights the differentiating factors of the product or service being offered. It focuses on the aspects that set the business apart from competitors and attract customers.

Highlighting differentiating factors

Entrepreneurs must clearly articulate the unique aspects of their product or service. By highlighting the factors that set them apart, they can communicate the added value their offering brings to customers.

Explaining how the offering provides superior value.

The unique value proposition component of Lean Canvas requires entrepreneurs to explain how their offering provides better value compared to existing alternatives. By highlighting the benefits and advantages, they can convince customers to choose their product or service over competitors.

5. Channels

The channels component of Lean Canvas focuses on identifying the most

effective distribution and communication channels to reach the target customers. It involves selecting the strategies and platforms that enable effective engagement with the target audience.

Identifying the most effective channels

Entrepreneurs need to identify the channels that best align with their target audience's preferences and behaviors. These channels could include online platforms, social media, physical stores, or any other means of reaching and engaging with customers effectively.

Discussing strategies to reach target customers

The channels component of Lean Canvas involves discussing and developing strategies to effectively reach and communicate with the target audience. It requires entrepreneurs to consider the most appropriate channels and techniques to maximize their marketing and distribution efforts.

6. Customer segments

The customer segments component of Lean Canvas emphasizes the importance of defining the specific target audience for the business. By understanding the distinct customer segments, entrepreneurs can tailor their product or service to better meet their needs.

Defining the target audience (users/buyers)

Entrepreneurs need to clearly define the specific customer segments they are targeting. This involves understanding the demographics, preferences, and behaviors of their ideal customers, which enables better product development and marketing strategies.

Segmenting customers and understanding their needs

The customer segments component of Lean Canvas encourages entrepreneurs to discuss the different customer segments and gain a deep understanding of their unique needs and preferences. By segmenting the target audience, entrepreneurs can develop tailored solutions and more effective marketing campaigns.

7. Cost structure

The cost structure component of Lean Canvas focuses on analyzing the cost elements associated with the business model. It involves identifying the expenses required to operate the business and exploring potential cost-saving measures.

Understanding the cost elements

Entrepreneurs need to carefully analyze the various cost elements associated with their business model. This includes identifying expenses related to production, marketing, personnel, infrastructure, and any other significant cost factors.

Identifying potential cost-saving measures

The cost structure component of Lean Canvas encourages entrepreneurs to explore potential cost-saving measures without compromising the quality or value of their product or service. This could involve optimizing processes, leveraging technology, or finding creative solutions to reduce expenses.

8. Revenue streams

The revenue streams component of Lean Canvas focuses on exploring different ways to generate revenue for the business. It involves analyzing potential monetization strategies and identifying the most effective approaches.

Exploring different ways to generate revenue

Entrepreneurs need to explore various revenue streams that align with their business model and target audience. This could include product sales, subscription models, advertising, licensing, or any other viable revenue generation approaches.

Discussing monetization strategies

The revenue streams component of Lean Canvas encourages entrepreneurs to discuss and evaluate different monetization strategies. This involves identifying the most profitable and sustainable approaches to generate revenue and support the long-term growth of the business.

c. Free Hand Action Plan Template

A free hand template can be used to allow the participants to work on their own ideas to make an action plan for their business.

ACTIVITY

The purpose is to apply the Business Model Canvas as an action planning tool. The activity may be done individually or in groups depending on the class size.

Instructions:

1. Facilitator will go through the BMC questions and explain using an example for Case Brief 2 (Mika's Online Digital Store).
2. Participants to develop a BMC for a business individually or in groups.
3. To help the participants create the BMC, a template with guide questions will be provided (hard and soft copies). Answer the questions as brief as possible.
4. For those working on the BMC as a group, assign someone to fill in the template and a presenter to share the group's output.
5. Each presenter is given 5 minutes to describe and explain the BMC output and action plan.

Guide Questions

- 1. Customer segment – target users/buyers of your product/service**
 - Who are target users/buyers of your product/service?
- 2. Value proposition**
 - What core or unique value do you deliver to your customer?
 - Which one of our customers' problems are we trying to solve?
 - What practical relevance of your products or services to your customers?
- 3. Customer relationships**
 - What type of interrelationship will you establish to maintain with target customers?
- 4. Distribution Channels**
 - Through which channels do our customers want to be reached?
 - How are we reaching them now?
 - Which ones work best & are cost efficient?

5. Revenue Streams

- What is your income generating model?
- What value are your customers willing to pay? How much does the revenue streams contribute to overall revenues?

6. Key Activities – the actions required for being profitable.

- What key activities do your value proposition require?
- Distribution channels
- Customer relationship?
- Revenue streams?

7. Key Partners – the entities/individuals involved in activities

- Who are externally involved in the business?
- What type of entity supports your business?
- Roles and responsibilities?

8. Key Resources – the assets in demand to keep the business running

- What key resources do your value proposition require?
- Human
- Financial
- Technical/Intellectual
- Physical

9. Cost Structure

- What are most important costs?
- Resources/activities that you will spend on most?

Below is a sample BMC for a Small-scale Online Retail Business, which can be used to demonstrate or illustrate the business action plan.

Figure 7. BMC sample of a small-scale online retail business

EXAMPLE BUSINESS MODEL CANVAS OF A SMALL-SCALE ONLINE RETAIL BUSINESS

Key Partners <ul style="list-style-type: none"> • Supply chain partner-companies • Outsourced technical professionals for maintenance of website • Warehouse – [personnel] • Internet provider • Payment gateways 	Key Activities <ul style="list-style-type: none"> • Cross selling or upselling products • Procurement of wholesale products • E-Commerce • Inventory management • Delivery and logistics 	Value Proposition <ul style="list-style-type: none"> • Affordable digital products • High-end quality digital products and accessories 	Customer Relationships <ul style="list-style-type: none"> • Develop network through social media by introducing new products to people of similar interest groups 	Customer Segments <ul style="list-style-type: none"> • College students in premier universities • Young professionals • Distribution outlets for digital products
Key Resources <ul style="list-style-type: none"> • internet • Warehouse personnel • Technical support • Logistics & delivery system • Cyber security • Data analytics 			Channels <ul style="list-style-type: none"> • Online platform • Website • Social media • Distributors 	
Cost Structure <ul style="list-style-type: none"> • Salary and Professional fees for outsourced team • Web Platform • Warehouse • Wholesale supplies 			Revenue Streams <ul style="list-style-type: none"> • Retail /units of digital products • Cross-sell to increase revenue 	

*****Notes to Trainers**

The templates are for references. Trainers are free to use relevant templates they are familiar with that can help participants with their action plan.

Trainers are the facilitators to help ignite ideas to help participants to come up with action plan to use digital transformation and/or business innovation in any aspect of participant's business with the help of relevant templates. You can add value using your own templates.

Lesson 2: Discussion

In this segment, participants present their action plan for facilitator/trainer to comment.

A set of criteria or a checklist can be developed to guide enhancement of ideas in integrating digital transformation and innovation in their action plan. Among others, the following may be considered in augmenting the women entrepreneurs' ideas in their action plan.

1. **Does the action plan reflect the understanding of the digital landscape?** Ensure that the participants have a basic appreciation of digital technologies, online platforms, and tools. They include tasks to stay informed about digital trends relevant to their business sector.
2. **Does the action plan suggest a business strategic vision?** The plan provides specific digital transformation objectives aligned with the overall business strategy. Consider long-term vision and how digital initiatives fit into one's business future growth.
3. **Does the action plan emphasize a customer-centric approach?** Having a user-friendly customer experience across digital channels. Customers' insights are taken into consideration leveraging data analytics to understand customer behavior and preferences.
4. **Does the action plan consider agility and adaptability?** Be open to change and adapt quickly to emerging technologies; and implement small changes and learn from them before scaling up.
5. **Does the action plan articulate collaboration and partnerships?** Connect with other entrepreneurs, industry experts and digital professionals. Seek partnerships for joint ventures, co-creation, or knowledge sharing.

***Notes to Trainers

The trainer will act as facilitator to guide participants in preparing their action plan.

Module Summary

Module 3 focuses on applying knowledge gained from the course through ideation and action planning.

Ideation is a creative process of generating, developing, and communicating new ideas, a vital step to solving specific problems and exploring alternative ways to implement solutions.

An action plan refers to a document that outlines specific tasks one needs to complete to achieve a particular goal.

The action plan can use templates to facilitate the planning process.

The Business Model Canvas and the Lean Business Model Canvas are one of the templates that can be used for action planning.

The participants are encouraged to use the BMC for action planning purposes. It is a strategic planning tool that identifies 9 components of the business plan.

The module ends with the participants' presentation of their action plan and the trainers' coaching in improving their action plans.

COURSE WRAP UP

Participant's Reflection:

1. What have you learned that you can apply to your business?
2. What would you have done differently for your business, if not for this course?
3. What new ideas have you gained from this course that will help you in your business?

SUMMARY OF WIFI DX Foundation Course

The WIFI DX courses will help women entrepreneurs build strategic perspectives in their digital business transformation journeys. This course instils the mindset and motivation required to embark on a transformative journey, while also highlighting the relevance and benefits of the other 5 specialized courses. The main aim of this foundation is to:

1. **Comprehend** the fundamental concepts of business innovation & digital transformation.
2. **Appreciate** the benefits of 5 specialized courses of WIFI 2.0 (E-Commerce & Digital Marketing, Financial Management using Technology, Trust and Cyber Security, Business Continuity Planning, and Data Analytics) to reduce issues and challenges faced by WE.
3. **Apply** lessons learned from relevant case studies and create action plans for their own businesses.
4. Policymakers can use this knowledge to devise strategic plans tailored to their specific contexts, aimed at fostering an **enabling environment** that supports and empowers women entrepreneurs.

Module 1 presents the Foundation Knowledge & Current Situation. It focused first on the essential knowledge on digital transformation and business innovation. The benefits of especially selected courses (E-Commerce & Digital Marketing, Trust and Cyber Security, Business Continuity Planning, and Data Analytics) followed, taking off from the

framework of WIFI DX and the Foundation Course to learn and take advantage of the flexibility and agility afforded by digital tools for swift adaptation and market expansion. These courses will strengthen capacities and provide digital empowerment of women entrepreneurs thus creating an inclusive digital economy where women can participate in shaping the future of business. The Activity & Discussion: issues, challenges, and opportunities for Women Entrepreneurs happens next which is meant not only to help women entrepreneurs identify and clarify the challenges currently faced by their business but also reflect on the opportunities that digital empowerment can generate towards their business growth.

With the motive to encourage women entrepreneurs to leverage on the power of digital technology, in Module 2, entitled Digitally Empowered Women Entrepreneurs: Applications and Lessons Learnt, case briefs about women entrepreneurs who succeeded in adopting digital transformation and innovation in their business, as well as the positive gains and the benefits derived from digital adoption were presented. The module sifted through the lessons learnt from the real-life cases, as well as research findings that validated the gains that digital empowerment can yield.

Ideation and Action Planning is the emphasis of Module 3. It is crucial for the Foundation Course to capitulate the immediate application of the knowledge and lessons gained from the first two modules. How they will be able to integrate and adopt digital transformation into their business innovation would bring into fruition the Action Plan Presentation. This segment prompts the Trainers to give comments and advice on each of the presentation to benefit the participants. The Action Plan Presentation is not only about how to use the BMC – but it also intended to demonstrate from this point forward the significance of business transformation and innovation in their action planning, such as the use of data analytics, CRM, automated invoicing, digital payments and the like.

In conclusion, the WIFIDX Foundation Course that will be delivered through lectures, video presentation, activity and exercises, the presentation of real-life cases of digital adoption by women entrepreneurs and lessons learned, as well as action planning ushers the stage of preparing a future where women entrepreneurs thrive as digitally empowered, innovative and influential participants in the digital economy.

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