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Introduction to Technopreneurship

LEARNING OUTCOME

Upon completion of this module, you should be able to:

1. Differentiate between entrepreneurship and technopreneurship.
2. Define the term technology.
3. Describe the elements of technopreneurship.
4. Discuss the importance of technopreneurship.
5. Explain the characteristics of technopreneur.

1.1 TECHNOPRENEURSHIP

"Entrepreneurship - The practice of consistently converting good ideas into profitable commercial ventures" – Peter Drucker.

1.1.1 Definition of Entrepreneurship

Entrepreneurship is defined as the process of designing, launching, and running a business, which often at the beginning is a small business. Entrepreneurship is a field and an industry. Entrepreneurship is defined as the practice of consistently converting good ideas into profitable commercial ventures (Drucker, 2014).

Entrepreneurs are people who sets up a business with the aim to make a profit and usually are not afraid to take risks as well as see potential in opportunities where most people do not. They are basically calculated risk-takers. They are open-minded people who focus on making things happen regardless of the situation they are in. Schumpeter (1965) defined "entrepreneurs as individuals who exploit market opportunity through technical and/or organizational innovation". Knight (1921) and Drucker (1970) defined as "entrepreneurship is about taking risk". Bolton & Thompson (2000) have defined an entrepreneur as "a person who habitually creates and innovates to build something of recognized value around perceived opportunities".

1.1.2 Definition of Technopreneurship

Technopreneurship term is a derivative of two words: *'technology'* and *'entrepreneurship'*. The word '*technology'* is used to refer to the practical application of knowledge to the industry or as a framework of knowledge that is used to create the tools, and develop expertise and materials to solve the existing problems. While '*entrepreneurship'* word comes from the word entrepreneur refers to a person or agency who identifies an opportunity or gap, converts it into a product/service, conduct market research, estimates earnings and profit and builds a successful business with it. Technopreneurship is a new breed of entrepreneurship. It involves a coming together of people who are intelligent, driven, creative, tech-savvy, passionate and have an appetite for calculated risk. It is all about the use of technology as an integral and key element in the transformation of goods or services. Technology means the hands-on and pragmatic application or use of scientific knowledge.

Technopreneur is the person who disrupts the existing economic order by introducing new products/services, by creating new forms of organizations and by exploiting new raw materials. It is someone who perceives an opportunity and creates an organization to pursue it. A technopreneur starts out with nothing but an 'idea'. He defies existing practices and systems and thinks of doing things differently. He creates a product or solution that uses the heft and capability of technology to change the way something was traditionally done. Technopreneurs, basically, are people who are able to think differently, and generate ideas and concepts that will then result in the creation of new technology. It is simply the entrepreneurial traits combined with technological development.

1.1.3 Definition of Technology

Technology is one of the main elements which plays important roles and elements in the entrepreneurship. Technology by definition is the practical applications of scientific knowledge. The advancement of technology has affected every part of life including businesses. It results in creation of new businesses as well as the radical changing of existing businesses, products and processes.

However, in this course's context, technology is referred to Information and Communication Technology (ICT). ICT has immense economic significance and permeates all aspects of life, providing newer, better, and quicker ways for people to interact, network and gain access to information. ICT which refers to devices, networking components, applications and systems that facilitate interaction with the digital world. ICT sometimes is used interchangeably with IT or Information Technology, but ICT is more comprehensive, including more components related to computers and digital technologies. Components include data, Internet access, cloud computing, software, hardware, transactions, and communication technology. But more importantly, ICT encompasses combinations and applications of those components.

"Technology is always evolving, and companies, not just search companies, can't be afraid to take advantage of change."- Eric Schimdt

ICT has drastically changed how people work, communicate, learn and live, and continues to revolutionize all parts of the human experience, from computers to robots. ICT contributes greatly to our economic development. Some have labelled it the Fourth Industrial Revolution (4IR). Within the ICT market, the advancement of ICT capabilities has made the development and delivery of various technologies cheaper for vendors and their customers, while also providing new market opportunities for businesses. Advances within ICT technologies have brought huge cost savings opportunities and conveniences, ranging from highly automated cost-cutting business processes to the big data revolution that leads to new insights products/services to ICT driven transactions like online shopping, telemedicine, and social media.

"Technology is great, but if you don't understand the business model, you will fail"- Janice Martines

The great technopreneurs who have left their mark histories such as Steve Jobs, Bill Gates and Mark Zuckerberg were those people who managed to enter the existing industry and disrupt the existing economics order by introducing new technologies and innovative solutions to the existing problems.

In the last two decades, Malaysia has witnessed a proliferation of local technopreneurs who have emerged to take advantage of the new technologies in the ICT, internet, and mobile industries. This new breed of savvy tech entrepreneurs has spurred innovation with their homegrown products and at the same time played a critical role in transforming Malaysia into a vibrant knowledge-based economy.

Among the most inspiring Malaysian technopreneurs who have been resilient enough to withstand the challenges of a fast-changing landscape and at the same time have been successful in introducing and sustaining their tech businesses in the country are Mr Mark Chang- Jobstreet.com; Ganesh Kumar Bangah - MOL Access Portal Sdn Bhd; Puan Chan Cheong-Green Packet Bhd; Johary Mustapha-Forest Interactive Sdn Bhd; Kris Uttraphan-Stempede Solution Sdn Bhd; and Thinagaranabhan Padmanabhan-TM Recylce IT Sdn Bhd.



Activity 1.1

It is your turn to explore and understand current businesses categorized as technopreneurship types of products/services. Identify a few examples of successful technopreneurs and describe their invented products/services.

Technopreneur	Product/Service	Impact
Example: Tan Hoi Ling	*Example: Grab*	*Example: Grab is an e-hailing platform that has changed the conventional taxi business operation. Anyone owns vehicle will be able to make money by lending his service to the passenger.*

1.2 ELEMENTS OF TECHNOPRENEURSHIP

The elements of technopreneurship are,

1. Creative and innovative acts that involve the application of technology to transform products/services.
2. Innovative ideas which are contextualized by the vision of the future.
3. Generate meaningful and beneficial business results.
4. Involves in making calculated risks, upon which success depends on it.

1.3 IMPORTANCE OF TECHNOPRENEURSHIP

The importance of technopreneurship includes,

1. Employment creation.
2. Creation/utilization/optimization of Local resources.
3. Decentralization and diversification of business.
4. Promotion of technology.
5. Capital formation.

1.4 CHARACTERISTICS OF TECHNOPRENEUR

Similar characteristics between entrepreneur and technopreneur	Different characteristics entrepreneur and technopreneur
1. Determine risk and has the courage to take the risk. 2. Independent and self-confident yet knows where to get help. 3. Likes a challenge. 4. Hardworking and willing to stick with a project. 5. Not easily discouraged. 6. Maintains good health, has lots of energy and can handle stress. 7. Effective leadership	1. Entrepreneur likes to compete and the business is self-starter while technopreneur likes to innovate and be part of a team. 2. Entrepreneur is motivated by a strong desire to achieve and attain financial success while technopreneur is motivated by a strong vision and the passion to innovate.
Top traits of a successful technopreneur	
1. Effective leadership skills: Everything will start with you. 2. Good follower: Aside from being an effective leader, you should also be a good follower. 3. Adapted to changes: You should prepare backup plans if things do not work out in the way you are planning them. 4. Focused and determined. 5. Skilled in planning.	



Activity 1.2

Entrepreneurial Potential Assessment Test (Canada, 2016)

Some people says that an entrepreneur is born, and some say entrepreneur is made. This activity is for you to do self-assessment to check if you have the potential to be an entrepreneur. After you have completed the self- assessment test, write down the self-assessment outcome and write your self-reflection.

Instruction: Read the following statements carefully and CIRCLE THE NUMBER which indicates your DEGREE OF AGREEMENT OR DISAGREEMENT with them, according to your way of seeing or doing things.

	Strongly Agree [1]	**Agree** [2]	**Neutral** [3]	**Disagree** [4]	**Strongly Disagree** [5]
1.	I am generally optimistic.				
	1	2	3	4	5
2.	I like doing things better than other people doing them.				
	1	2	3	4	5
3.	When I solve a problem, I try to find the best solution without too much concerning myself about other possible solutions.				
	1	2	3	4	5
4.	I like to chat with my co-workers after the workday is over.				
	1	2	3	4	5
5.	If I bet at the races, I'd rather take a chance on a long-shot that might bring a big pay-off.				
	1	2	3	4	5
6.	I prefer to set my own objectives and work hard to reach them.				
	1	2	3	4	5
7.	I am easy to approach and get along well with others.				
	1	2	3	4	5
8.	I like to be well informed about what is happening and take steps to find out.				
	1	2	3	4	5
9.	I work better when someone guides and advises me.				
	1	2	3	4	5

	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
	[1]	**[2]**	**[3]**	**[4]**	**[5]**
10.	When I know I'm right, I can convince others.				
	1	2	3	4	5
11.	I often find that other people make me waste precious time.				
	1	2	3	4	5
12.	I like watching hockey, baseball and other similar sports.				
	1	2	3	4	5
13.	I tend to talk easily and openly about myself to others.				
	1	2	3	4	5
14.	I don't mind following orders from superiors who have legitimate authority.				
	1	2	3	4	5
15.	I prefer developing plans rather than putting them into effect.				
	1	2	3	4	5
16.	There's not much pleasure in betting on "sure things".				
	1	2	3	4	5
17.	Faced with failure, I'd rather go quickly to another activity than persevere in the situation.				
	1	2	3	4	5
18.	I think that to succeed in business, you must commit time to family.				
	1	2	3	4	5
19.	When I've earned something, I think it's important to protect it, to keep it secure.				
	1	2	3	4	5
20.	Making a lot of money is mostly a matter of luck.				
	1	2	3	4	5
21.	A problem is usually resolved better when you consider several possible solutions.				
	1	2	3	4	5
22.	I like to impress others with my achievements.				
	1	2	3	4	5
23.	I prefer to play a sport such as tennis or badminton with someone slightly better at it than I am.				
	1	2	3	4	5

	Strongly Agree [1]	Agree [2]	Neutral [3]	Disagree [4]	Strongly Disagree [5]
24.	Sometimes, in business negotiations, ethics and morality have to be a bit loose.				
	1	2	3	4	5
25.	Believe that good friends should make the best subordinates in a business.				
	1	2	3	4	5

Evaluate your answers

Give yourself one point for each time you have CIRCLED THE NUMBER 1 OR 2 in responses to statements: 1, 2, 6, 8, 10, 11, 16, 17, 21, 22, 23 and 24; and one point for each time you have CIRCLED THE NUMBER 4 OR 5 in response to the statements: 3, 4, 5, 7, 9, 12, 13, 14, 15, 18, 19, 20 and 25.

TOTAL POINTS

21 to 25	You have great entrepreneurial potential. With such potential, it's surprising you haven't gone into business already.
16 to 20	This result shows you have definite entrepreneurial potential. However, your success in business could depend on the abilities you show and the resources you have available.
11 to 15	This result puts you in an intermediate zone. You are probably capable of going into business, but you would have to put a lot of effort and perseverance into it. Outside help and follow-up in the form of advice and encouragement would be an asset to you. Some adjustments might also be necessary.
6 to 10	Your entrepreneurial potential seems fairly weak. You would certainly have to reconsider some of your opinions, attitudes and behaviour patterns.
1 to 5	Be realistic. It would probably be difficult for you to evolve into the business world at present. You should become seriously informed about the restraints and demands of the entrepreneur's career

This "assessment" attempts to evaluate your aptitude for business and is based on a number of characteristics observed in entrepreneurs. It cannot, of course, claim to make an exact evaluation of your entrepreneurial potential, but it is a good way to find out where you stand.

After completing the Self-assessment Test, write down the outcome. Give your reflective comments about your entrepreneurial potential.

Your Total Points:

Reflection:

Technopreneurship requires balanced competencies both in technical and soft skills. Technical skill refers to the knowledge and expertise on the technology know-how to accomplish certain processes in solving the consumer's problems. Excellent technical competency will be an advantage to the technopreneur in producing an innovative invention using the latest technology. Understanding the latest technology is very important to ensure the product produced or service provided can compete with other competitors and sustain in the market for a longer period. However, technical competency alone is insufficient to do technology-related business. Doing business will involve a two-way relationship between technopreneur and consumer. Therefore, technopreneurs also need to have excellent soft skills such as writing skills, communication skills (especially persuasive and negotiation), project management, team management and many others. The next chapters of this guidebook will discuss the whole spectrum of technopreneurship which are to produce innovative technology-based solutions and to equip technopreneurs with all necessary soft and managerial skills required to kickstart and sustain in the business.