

Vanessa Ratten

Managing Innovation in Organisations

Fostering an Entrepreneurial Approach



Springer

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Preface

It is my pleasure to write this book about managing innovation in organisations as I have been interested in this topic for a long time period. New digital technologies are influencing the innovation process within organisations and influencing cross-cultural initiatives. This means the field of innovation is always advancing due to changes occurring in the international business environment. I am grateful to you for having an interest in learning more about how to manage innovation in organisations. I hope that by reading this book it will add value to your life and help you with future aspirations. I wish that from this book you will gain a deep understanding of the issues organisations face when implementing and managing innovation. There are many challenges that organisations are facing because of the COVID-19 pandemic that are influencing how they approach innovation.

Thank you for taking an interest in managing innovation in organisations. It is a specific topic that links organisational behaviour with innovation management, thereby highlighting how it is important to consider the process and steps in managing innovation in a workplace context. There are many different ways innovation can be managed so this book will take a broad approach to how this occurs in a real-life context.

The aim of this book is to spark your interest in innovation but more specifically from an organisational point of view. This means highlighting interesting issues regarding innovation and predicting future trends. I believe that further exciting changes are coming to the innovation field that will change society. By improving your understanding of innovation, it will put you in a good position to understand future changes. The world is constantly changing so it is important to focus on how innovation can be used in a positive way. The approach in this book is to focus on organisations regarding innovation management.

Innovation

Innovation involves challenging the implicit assumptions that exist in society. This means helping people see and do things in a new way. You use a range of innovations everyday that are so routine you probably are not aware of them. Innovations exist in transportation methods, computer usage and home appliance services. A typical innovation involves some kind of electronic gadgetry but can involve new fabrics in clothes or changes in packaging sizes. Organisations use a wide array of innovations, which normally relate to increased efficiency.

You probably have a few innovative products and services that you like. Have you considered why you like them and what makes them unique? This book will show you how organisations can implement innovation in a positive way. This normally involves increased customer satisfaction and repeat sales.

In addition to studying the process of innovation in organisations, you will learn about key concepts and tools. This involves examples from around the world that provide evidence of practical and theoretical usage. From these examples, you will learn how to cultivate an innovation mindset in an organisation. Innovation now dominates the global economy and most jobs are generated by innovation. Therefore, understanding the process of innovation offers a competitive advantage.

Why Study Innovation?

The purpose of this book is to provide you with the skills to manage innovation in an organisational setting. This means thinking about why innovation is important in a workplace. Innovation is about positive change and it continually evolves based on societal interaction. This means as a reader of this book you have already experienced many different types of innovation. Some of these innovations have been obvious (such as the introduction of new mobile phone features) whilst others have been subtle (such as the increase in internet bandwidth). Thus, when reading this book it is helpful to think about what innovation means to you and why it is important.

In making this book a reality, I thank my family, who have supported me. Finally, I would like to thank you for taking the time to read this innovative (innovation) book. It takes into account the fast-evolving nature of innovation from the COVID-19 pandemic. If you have any feedback or comments, I would love to hear from you.

Structure of Book

This book is structured as follows. Chapter 1 focuses on how organisations can manage their innovation processes. This provides a good way to start the book as it emphasises how innovation needs to be incorporated into the strategic plans of

organisations. Due to its complex nature, innovation can take on a variety of different formats, so it is important that it is utilised by organisations in the right way. The chapter discusses how organisations can do this and why the innovation management process is an important part of its competitive success. Chapter 2 discusses different types of innovation, which is helpful to understand in terms of the various ways it can be managed. Not all innovation is the same, so each type needs to be assessed on its merits. Chapter 3 analyses the role innovation ecosystems play in society. This involves focusing on how different entities in society interact regarding innovation tasks. An ecosystem perspective is useful in understanding the systematic way innovation develops. Chapter 4 discusses responsible forms of innovation, thereby emphasising the ethical and moral aspects of innovation. Chapter 5 highlights the way strategy is used in entrepreneurial forms of innovation. This is an important way organisations can plan for the future. Chapter 6 analyses the role of resilience in innovative endeavours. This means taking into account crises and unanticipated market changes. Chapter 7 analyses the way green and eco forms of innovation have become more popular. This is important as more emphasis is placed generally on sustainable innovation. Chapter 8 discusses the role of artificial intelligence in innovation, thereby taking into account technological advances in society. Chapter 9 highlights the role social marketing and innovation play in the marketplace, thereby stressing the need to think of the social implications of any type of innovation. Chapter 9 is the last chapter and focuses on innovation trends. This is a useful way to end the book as it suggests what types of new innovations might occur in the future.

Conclusion

This preface has provided an overview of why it is important to study innovation in an organisational context, thereby taking into account the organisational context and how workplaces can be more efficient. The aim and background of this book was stated that highlights how it is essential for organisations to focus on managing their innovation.

Bundoora, Australia

Vanessa Ratten

Acknowledgements

I have taught innovation for more than twenty years at the undergraduate, postgraduate and MBA level. Thus, I am delighted that my thoughts and teaching methods can be incorporated into this textbook on how to manage innovation. Whilst there are many books on innovation, this book is different as it focuses specifically on the managerial context. Thereby it will help students to learn about how to incorporate innovation in a managerial context. As many students will likely go on to become managers, it is important to develop an innovation mindset. Whilst we teach innovation it differs in an organisational context, which is the reason for writing this book.

I would like to thank Lucie Bartonek at Springer for her help and dedication. It is appreciated. Thank you. I would also like to dedicate this book to my mum, Kaye Ratten, for being the innovator of our house and for encouraging me to fulfil my dreams. Thanks mum. I have fond memories of her talking about companies like Google before they were as well known as they are now (and her telling me to buy shares in it but unfortunately I did not take this advice). She had an ability to predict trends and was very good at business. In terms of her innovation trends, she was very innovative in terms of music selection and introduced me to musicians such as Amy Winehouse, Black Eyed Peas and Louis Armstrong. On a personal side, I also remember fondly watching shows like *Midsummer Murders* and *Poirot* with her during the times when they were on DVD and we could only obtain one per week. Times have definitely changed with innovations like streaming whole seasons on the internet becoming available. As I have been watching I think season 22 of *Midsummer Murders* on the internet it reminds me of the innovations that have happened during the last decade particularly regarding technology. It really is amazing to think about these changes and particularly what it means for organisations that need to manage their innovation. I also remember teaching an innovation class in the early 2000s and asking students do you think we will be able to watch shows on our phones? I remember this clearly as it was the time when phones still had keyboards instead of touchscreen technology, they had no internet capabilities and the time spoken on the phone was measured. Now we have unlimited internet access and call time. I also

thank my dad David Ratten, niece Sakura Ratten, brothers Hamish Ratten and Stuart Ratten and sister-in-law Tomomi Ratten. I also thank my friends for supporting me and comforting me in times when it mattered. Thank you.

Contents

1	Managing Innovation	1
	Learning Objectives	1
	Introduction	1
	How to Manage Innovation	2
	Context of Topic—Innovation Trends	3
	Digitalisation	3
	Internationalisation	3
	Open Innovation	4
	Creativity	4
	Data Analytics	4
	Innovation Post the COVID-19 Pandemic	4
	Social Media	5
	Group Activity	5
	Innovation Implementation Process	5
	Key Aspects in Success	7
	Advantages and Disadvantages	7
	Defining the Concept of Innovation	8
	Production and Manufacturing Orientation	8
	Entrepreneurial Alertness	9
	In Class Debate Question	10
	Application Activities	11
	Lessons Learnt	11
	Discussion Questions	12
	Learning Outcomes	12
	Conclusion	12
	Multiple Choice Questions	13
	References	13

2	Types of Innovation and Innovation Failure	15
	Learning Objectives	15
	Introduction	15
	Context of Topic: Innovator Defined	18
	Group Activity	20
	Implementation Process	20
	Key Aspects in Success	21
	Advantages and Disadvantages	22
	In Class Debate Question	23
	Application Activities	24
	Lessons Learnt	24
	Discussion Questions	24
	Learning Outcomes	24
	Conclusion	25
	Multiple Choice Questions	25
	References	26
3	Innovation Ecosystems	29
	Learning Objectives	29
	Introduction	29
	Context of Topic	30
	Group Activity	31
	Innovation Ecosystems and Social Cognitive Theory	31
	Innovation Ecosystem Implementation Process	32
	Key Aspects in Success	32
	Advantages and Disadvantages	33
	Entrepreneurial Ecosystems	33
	Collaborative Innovation	35
	In Class Debate Question	36
	Leadership and Motivation During Crises	37
	Application Activities	37
	Athlete Innovation	38
	Lessons Learnt	38
	Discussion Questions	38
	Learning Outcomes	39
	Conclusion	39
	Multiple Choice Questions	39
	References	40
4	Resilience and Innovation	43
	Learning Objectives	43
	Introduction	43
	Context of Topic	44
	Group Activity	45
	Implementation Process	45
	Key Aspects in Success	46

Advantages and Disadvantages	46
Social Innovation	47
Classroom Activity	48
Community Enterprises	49
In Class Debate Question	50
Internet Exercise	50
Application Activities	50
Lessons Learnt	51
Discussion Questions	51
Learning Outcomes	51
Conclusion	51
Multiple Choice Questions	52
References	52
5 Entrepreneurial Innovation and Strategy	55
Learning Objectives	55
Introduction	55
Strategic Innovation Culture Checklist	57
Context of Topic	57
Group Activity	58
Implementation Process	58
Key Aspects in Success	58
Advantages and Disadvantages	59
The Role of Innovation Managers	60
In Class Debate Question	62
Strategy and Innovation	62
Application Activities	63
Lessons Learnt	64
Discussion Questions	64
Learning Outcomes	64
Conclusion	65
Multiple Choice Questions	65
References	66
6 Social Marketing Innovation	67
Learning Objectives	67
Introduction	67
Context of Topic	69
Group Activity	69
Implementation Process	69
Key Aspects in Success	70
Advantages and Disadvantages	70
Value Chain Analysis	71
Sustainable Development Goals	72
In Class Debate Question	77
Internet Exercise	77

Lessons Learnt	77
Discussion Questions	78
Learning Outcomes	78
Conclusion	78
Multiple Choice Questions	78
References	79
7 Green and Eco-Innovation	81
Learning Objectives	81
Introduction	81
Eco-Innovation	82
Opportunity Recognition Checklist	83
Context of Topic	84
Group Activity	84
Circular Economy and Sustainable Innovation	85
Implementation Process	86
Key Aspects in Success	87
Advantages and Disadvantages	87
Sustainable Food Innovation	88
In Class Debate Question	90
Lessons Learnt	91
Discussion Questions	91
Learning Outcomes	91
Conclusion	91
Multiple Choice Questions	92
References	93
8 Artificial Intelligence Innovation	95
Learning Objectives	95
Introduction	95
Innovation in Data Storage	96
Innovation Policy	97
Context of Topic	98
Key Aspects in Success	99
Advantages and Disadvantages	100
In Class Debate Question	102
Application Activities	102
Lessons Learnt	102
Discussion Questions	103
Learning Outcomes	103
Conclusion	103
Multiple Choice Questions	103
References	104

9 Innovation Trends	107
Learning Objectives	107
Introduction	107
Context of Topic	108
Group Activity	108
Implementation Process	108
Key Aspects in Success	109
Advantages and Disadvantages	109
Multidisciplinary Influences on Innovation Trends	110
Accounting	110
Agriculture	110
Anthropology	112
Arts	113
Biotechnology	113
Economics	113
Environment	113
Ethnic Studies	114
Finance	114
Gender	114
History	115
Information Systems	115
Management	115
Marketing	116
Political Science	116
Project Management	116
Psychology	116
Religion	117
Rural	117
Sociology	117
Sports Management	117
Tourism	118
Classroom Activity	118
In Class Debate Question	119
Internet Exercise	119
Lessons Learnt	119
Discussion Questions	119
Learning Outcomes	119
Conclusion	120
Multiple Choice Questions	120
References	121

List of Tables

Table 1.1	Advantages and disadvantages of managing innovation in organisations	8
Table 2.1	Dominant topics in innovation management	16
Table 2.2	Advantages and disadvantages of innovation formats	22
Table 3.1	Advantages and disadvantages of innovation ecosystems	33
Table 4.1	Advantages and disadvantages associated with resilient forms of innovation	46
Table 5.1	Advantages and disadvantages of innovation strategy	60
Table 5.2	Innovation strategy quiz	60
Table 6.1	Advantages and disadvantages of marketing	71
Table 7.1	Eco-innovation checklist	83
Table 7.2	Advantages and disadvantages of green innovation	88
Table 8.1	Advantages and disadvantages of artificial intelligence	100
Table 9.1	Advantages and disadvantages of innovation trends	110
Table 9.2	Future innovation trends	111

List of Case Studies

The Man Shake (see https://themandshake.com.au/)	7
Google Glasses	10
Microsoft Zune	11
Innovation in Australia	18
Mobile ESPN (see https://www.espn.com.au/)	22
BigM Chocolate Flavour Change	35
Derwent (https://www.derwentart.us/)	43
Thursday Plantation	45
Colman's of Norwich (https://www.colmans.co.uk/)	48
Barnes and Noble Nook	61
Crystal Pepsi	68
Cheetos Lipbalm	72
Starbucks Coffee (https://www.starbucks.com.au/)	89
Blackberry (https://www.blackberry.com/us/en/products/devices)	96
Beats Headphones (https://www.beatsbydre.com/au/products)	98
Napster	101
Dr. Martens (For more information please visit https://www.drmartens.com/intl/en/history)	107
Birkenstock (For more information please visit https://www.birkenstock.com.au/about-birkenstock)	109
Play-Doh (For more information please see https://www.smithsonianmag.com/innovation/accidental-invention-playdoh-180973527/)	118

Chapter 1

Managing Innovation



Learning Objectives

- To understand how organisations can effectively and efficiently manage innovation.
- To assess the responsibilities of key decision makers in an organisation with respect to innovation.
- To evaluate how an organisation manages their innovative capabilities.
- To identify the characteristics of an organisation that successfully manages its innovation process.
- To assess the relationship between senior management and the organisations key stakeholders.

Introduction

Innovation can occur in a variety of contexts but often happens in organisations (Kahn, 2018). This is due to the need to devote specific resources in the form of money and time to the development of an innovation. This chapter discusses what innovation is and how it occurs in an organisational context. Thereby focusing on the process of managing innovation which involves skill and dedication. As compared to innovation developed in other contexts, organisational innovation focuses on the business practices of the change (Ratten, 2020). Thus, highlighting the profitability and performance benefits of the innovation.

In this chapter I discuss the role innovation plays in society by focusing on the organisational context. This role is constantly changing due to new technologies entering the marketplace and the business environment adapting (Ratten & Usmanij, 2020). Thus, it is important to consider the societal context of innovation as it provides a way of assessing innovation. This chapter will discuss how innovation has changed

from being an optional activity to a necessity for an organisation. This means highlighting how the perception of innovation in terms of its value has changed (Russell & Smorodinskaya, 2018). The links between innovation and culture are discussed as innovation does not occur in isolation but rather depends on a number of different factors such as the use of artificial intelligence (Verganti et al., 2020). Thus, a systemic view of organisational innovation is developed.

How to Manage Innovation

Innovation is a very practical field and only recently has it really emerged as a distinct field of interest within business management studies (Rauter et al., 2019). This means there is both a practical and theoretical side as to how innovation occurs in society (Ratten, 2022). Previously it was assumed that innovation magically happened and it did not have to be managed. This assumption is untrue as innovation can be learnt and improved upon particularly in terms of changing innovation outputs (Parrilli et al., 2020). It is therefore important to keep an open mind regarding how innovation can be implemented within an organisation.

Generally, innovation takes an increment or radical form (Oeij et al., 2019). Incremental innovation occurs in a continuous manner whereby small changes are implemented. This means it is usually a step-by-step process in terms of it increasing over time. Radical innovation are more life changing and completely alters existing market conditions. It is less likely to occur in society but when it does it has a transformational effect.

Innovation is a complex topic as it can be studied in a number of different ways (Arundel et al., 2019). It is a fashionable topic and is being used by more organisations as a form of competitiveness. Innovation occurs daily in organisations but much of it does not get measured in a proper way (Chen et al., 2018). This makes it hard to keep track of innovation in terms of how it progresses or withers in an organisation. Some innovation develops quickly whilst other forms of innovation can take time to gain traction. This means every innovation should be considered as a unique form of innovation.

Innovation in order to be used properly in society requires individuals to interact with it. This means learning about the reason for the innovation and how it can help them. In essence, innovation is a dialogue that occurs between a user and the originator of the innovation. Most innovations are derived from organisational intervention in terms of linking an invention to a commercial need. This means the dialogue is like a conversation in terms of new information being obtained and then discussed in terms of feedback. Some feedback can be positive whilst other forms of feedback can have a negative effect. Both types of feedback need to be considered in terms of potential implications regarding the use of innovation in organisations.

Context of Topic—Innovation Trends

In this section, I identify the main innovation trends that are causing people to rethink how innovation is utilised in organisations. The list is no means exhaustive as there are new trends occurring in the marketplace but are the most important ones. These trends have transformed how organisations are managed and the way innovation is implemented in the market environment. It is useful to consider how these trends have influenced how innovation is developed and to think about new trends.

Digitalisation

There has been a large shift in society to the use of digital formats. This includes organisations such as Netflix and online streaming in general becoming more popular. Most books now appear in a digital and physical format. In addition, other information is in a digital format including banking and health records. The majority of people have their own mobile phone and this has further influenced the change to digital information. Digitalization has meant that people can access information from any time format and in any geographic location. Thereby enabling efficiency gains and real time information to be obtained.

Internationalisation

There has been an increased ease of people communicating globally on projects that has led to more innovation. In the past it was costly to speak to people on the phone which limited interaction. It was also difficult to travel overseas due to flight times and monetary issues. This has changed as there are more people travelling overseas on a frequent basis. Moreover, more people are living between countries and working remotely. This has been exacerbated during the COVID-19 crisis but most likely is a trend that will continue in the future.

There is now talk about using the 24 h clock so that work can be done throughout the day. Thus, whilst people are sleeping in the southern hemisphere people in the northern hemisphere can continue to work on a project. Moreover, international partner teams that concurrently work on a project are becoming more popular. This is making the overall time taken to finish a project quicken.

Open Innovation

There has been a change to open forms of innovation that encourage the sharing of information. This spurs more innovation and means that knowledge is shared. In the past, there was a tendency for organisations to not share information with others due to a need to protect their intellectual property. This still happens but there are competitions regarding innovation being conducted by organisations that encourage a more collaborative approach. In addition, the internet and other online technologies particularly regarding social media have increased the amount of information that is shared.

Creativity

Creativity is part of innovation as it involves thinking about things in a new way. In the past creativity was thought of in an artistic sense meaning that artists and actors were the people who were most creative. This stereotype has changed with the realization that business managers and marketers can be creative. Moreover, creativity can occur in a variety of different ways including through the introduction of new products into the market to doing things in a new way. There are now more courses specifically teaching creative skills, so it is becoming an important tool to have in the workforce. Creativity is considered a specific topic that merits more attention instead of being included within entrepreneurship or innovation studies.

Data Analytics

There is now a lot of information being circulated in the global marketplace. This has created many opportunities for organisations in terms of understanding consumer needs and forecasting trends. It is cheaper and easier to store some forms of data although analysing the data in the correct way takes time and money. For this reason, the way data is used for innovation purposes will be an area of concern for organisations. It will be interesting to see in the future how data analytics is used for innovation purposes.

Innovation Post the COVID-19 Pandemic

The COVID-19 pandemic has significantly changed society and made people more aware of the importance of innovation. During the COVID-19 pandemic there were travel restrictions and working from home mandates. This meant that more people

learnt through digital education and worked via digital technology. Moreover, social distancing requirements meant that people had to separate from others. This significantly changed society and the effects will be felt by society for a long time period.

Social Media

Social media has enabled people to obtain information quickly and to share it with others. Many organisations have social media platforms such as Twitter, Facebook and Instagram. This has led to people commenting and providing feedback on posts. Thus, innovation can now occur via social media and there are more communities of practice. This has enabled people who share an interest in a topic to do so in a digital format. Moreover, user friendly videos and other information is being posted online. This is helping organisations to disseminate information and to utilise word of mouth marketing.

Group Activity

In groups of 4–5 people draw an example of a responsible innovation. This could be a specific product or a service that occurs in a responsible way. Try to be creative and inventive with your picture in terms of how the innovation is responsible.

Innovation Implementation Process

Innovation as a word is an exciting concept as it engenders a positive feeling. This means it is a fascinating concept that constantly changes based on new thinking. What was innovative ten years ago is not now, so organisations need to carefully consider how they plan for new innovations. Many people worldwide focus on certain types of innovation including technological, social or product depending on their interest. This means it is important to consider the range of activities in which innovation can occur. For some, innovation is all about new technology whilst for others it involves additional sport products. This means many people are fascinated with the way innovation develops in a business context and how it changes society.

Innovation can be an emotional topic as it provides fun and a sense of enjoyment to many. When an innovation is introduced into the marketplace it can be intriguing and consumers might be mesmerised by its usage. This means for organisations they need to think more about innovation related activities such as marketing that are needed to encourage consumer interest. In the initial stages of an innovation people might be focused on making it a commercial reality. This requires a number of different people

in the organisation such as scientists, engineers and marketers to work together. This will ensure that the innovation gets properly implemented in the marketplace.

Not all innovations are successful as they take time and resources to develop. Some innovations get quick marketplace acceptance as they are developed at the right time. Others take time to obtain approval for market regulators or consumers. There is a tendency to think of innovation as requiring a lot of research and development. This is true with regards to certain types of innovation particularly those that require market approval. However, innovation can also be done in a simple way that is still effective.

There are now more people employed as innovation managers than in the past as organisations realize they need to properly manage innovation. Innovation managers are now common in most organisations. This legitimises the process of innovation by acknowledging that it requires skill and dedication. Not everyone can be an innovation manager as it takes time and effort to develop this expertise. Whilst many people show an interest in innovation, to manage the process requires analytical skill. This means assessing each type of innovation based on its merits and usefulness for the innovation. Once the innovation has deemed as worthy of progressing then it should be managed in the appropriate way. This can involve a timeline in terms of what needs to be done. Therefore, the process of managing an innovation can be quite difficult.

More organisations are focusing on innovation, so the topic is growing in terms of interest. Increasingly organisations that are both profit and non-profit are seeking out qualified innovation professionals. This means there are many opportunities for people interested in innovation to pursue it as a career. If you are not directly involved in managing an innovation you may indirectly be involved. Hopefully this chapter will inspire you to be interested in innovation in some way.

People can be born as being more inclined to innovative activity or they can learn to be more innovative. The focus of this chapter is on exploring innovation from an organisational perspective. Innovation is a fascinating topic as it involves new thinking. Much of the research on innovation comes from other fields such as knowledge management, cultural studies and economic geography. This is due to the realisation that innovation is necessary as it enables society to progress and adapt. This means that innovation provides the promise of an improved society and an increase in people's quality of life.

In recent years, research on organisational innovation has expanded but there is still nowhere near the amount of research on the topic compared to more well known types of innovation such as social or technological. The reason for this might be due to the reliance in entrepreneurship studies to focus on general concepts instead of industry segments. This may change as more emphasis and attention is placed on organisational innovation and its entrepreneurial characteristics in the global business environment.

Case Study: The Man Shake (see <https://themanshake.com.au/>)

The Man Shake is an easy to prepare shake that is specifically designed for men. Traditionally, weight loss aids were focused on females and tended to not be gender neutral. This changed with the Man Shake that specifically markets a weight loss product to men. In January 2022 Pacific Equity Partners obtained a controlling stake in Cranky Health that owns Man Shake. The founder of Man Shake is Adam MacDougall who previously was a rugby league player who started up the business. Some questions to consider:

1. Why was it considered innovative to promote this product to men?
2. What other kinds of innovative products could be developed that are similar to this product in terms of changing the stereotypes of gender in society?

Key Aspects in Success

This book is focused on global aspects of innovation thereby it considers international applications of the innovation being discussed. Increasingly local or regional forms of innovation are becoming global innovations in a quick time period. This means any type of innovation should be considered from a global perspective. This is due to markets being intertwined and information technology making it easy to communicate with others overseas. Markets now due to tariffs being decreased are more open. This means there are many opportunities for innovations to become global. As you read this book, you will benefit from the global perspective in this book. This means seeing innovation for what it really is: a global issue that is making organisations more efficient.

Advantages and Disadvantages

There are many advantages and disadvantages associated with managing innovation in an organisational context. The advantages derive from the competitive advantage that organisations achieve from focusing on future orientated activity. This means they are able to forecast and plan for change before their competitors. The disadvantages are associated with the time and effort it takes to manage innovation in an organisational context. Innovation can be a complex activity so it needs proper management in order to make it successful. Table 1.1 states in more detail some advantages and disadvantages.

Table 1.1 Advantages and disadvantages of managing innovation in organisations

Advantages	Disadvantages
1. Managing innovation is a way to keep track of its progress	1. Managing an innovation can take time away from other daily tasks
2. Without proper management practices, an innovation will not succeed	2. It can be difficult to coordinate different parts of an organisation regarding the implementation of an innovation
3. Managers of organisations need to consider how and why they can implement innovation	3. Managers need to do a risk assessment about the advantages and disadvantages of an innovation
4. Managers need to consider the time it takes to obtain market advantages from an innovation	4. Different types of innovation require different management styles
5. To properly assess an innovation, managers need to devote appropriate resources and time allocations	5. It can be harder for a small organisation to manage an innovation due to the time it takes

Defining the Concept of Innovation

Most people tend to define innovation based on it involving positive changes that result in value adding activity to society. Innovation involves change but it should also have a business component. This means focusing on value in terms of an additional economic benefit. There is a general perception in society of innovation being inherently good. This perception applies to people directly or indirectly involved with innovation. The term innovation is a concept that makes people think about possibilities. This means it is a fun and exciting concept that brings positive benefits to the people involved. The next sections will discuss in more detail what the innovation concept is and how it has evolved over the years.

Production and Manufacturing Orientation

Initially the concept of innovation focused on the production and manufacturing of goods. This was due to most business activity being concentrated on the production process due to the industrial revolution. Whilst there was still innovation occurring in other industries the emphasis in academic and managerial studies tended to be on the manufacturing sector. This meant innovation was studied in terms of the machines used and automation processes. Traditional studies of innovation were incorporated within organisational behaviour research in terms of how changes in the workplace led to efficiency gains. The innovation could include things like a change in design or hours worked. Initially the results were used to increase efficiency rates in terms of workplace gains. This meant the outcomes of the innovation such as production rates were studied.

Classroom Activity

In groups of 4–5 people draw the process of how to manage innovation. This includes the initial lightbulb moment to the implementation of the idea in the organisation. Try to include arrows in terms of what each step in the management process leads to and the overall outcome.

Entrepreneurial Alertness

Innovation requires entrepreneurs to be alert to new opportunities. Lanivich et al. (2022: 1169) states that entrepreneurial alertness is “characterised by the process and actions associated with finding opportunities based on idiosyncratic expertise and prior knowledge”. This means entrepreneurs utilise their skills and experience in deciphering clues in the marketplace in order to be innovative. This enables them to evaluate opportunities as they are found as to their viability. Lanivich et al. (2022) suggests that entrepreneurial opportunities can be assessed through three main factors: observation of environment, resource association and evaluation of ideas. The observation of the environment involves focusing on senses in terms of what is happening. This means scanning the environment for any current or anticipated change. This enables people to understand what is going on and predict future change. The observation can be of a deliberate nature of a subconscious form in terms of not being specifically aware of the interaction. The observation process is critical in assessing potential business opportunities before others do. This means it has a competitive form as others compete to find the best opportunity in the marketplace. Not everyone will be able to act on opportunities as they may need access to resources.

Resource association involves connecting resources together in a productive way. This enables some form of value to be obtained from the connection. By making mental connections it can make the idea of entrepreneurship a reality. To do this individuals need to foresee possibilities in potential outcomes. This can be harder to do than anticipated when resources are limited. For this reason, ideas need to be evaluated in terms of their commercial ability. This means assessing the idea based on potential entry into the market and resulting profitability. This requires assessing the window of opportunity in terms of urgency. This can then enable more information to be obtained about the benefits of the opportunity.

The relationship between innovation and politics can be a good or destructive force. Some government initiatives encourage innovation through development such as new buildings or stadiums. Other types of government initiatives can be debatable as to whether they have positive or negative effects. For example, funding towards the building of casinos can be viewed by some as a necessary requirement in today's

society but others view gambling as a negative behaviour. This means the positive and negatives of government funding needs to be weighed up. This will result in a more balanced approach to considering the virtues of innovation.

Organisation Example: Google Glasses

Google glasses entered the marketplace in 2012 and were designed so users could use the internet whilst going about their daily activities. They were expensive but offered many product features such as video recording. In 2015 the glasses were discontinued due to a lack of market demand. The glasses used voice commands to show different information such as maps and internet pages. The usage of the glasses could be for specific functions or everyday activities. The glasses had a two to three hour battery life that meant they needed to be recharged for usage. The main idea behind the glasses was to make it easier to do multiple technology functions such as take a photo and to receive messages. Some discussion questions to think about in terms of why Google glasses were not successful:

1. Why do you think Google glasses failed? Was it a timing issue or lack of specific features?
2. Do you think that Google glasses entered the market before people were ready for the innovation?
3. Do you think if Google glasses were developed today they would be more successful?

In Class Debate Question

In class divide the class into groups who agree or disagree with the following statement. As part of the debate, research why you agree or disagree and provide reasons for this choice. You should also give detailed organisational examples that support your reasoning.

- Only certain types of organisations in designated industry segments need to manage their innovation.

Internet Exercise

Pick an organisation that has a strong market presence in your region. Then research online whether they have any specific innovation policies

Application Activities

1. Interview an innovation manager of an organisation and ask them about their experiences. Determine why this person became an innovation manager and what they like about their position. Compare this person's position to other management positions to understand how they are involved with innovation.
2. Interview a manager of a not-for-profit and ask them what kind of innovation activities they have been involved in. Discuss with them how innovation has helped their organisation and the outcomes it has achieved.
3. Interview another student and ask them to describe an innovative product or service they have consumed in the past year. Discuss with them what made it innovative and how much it was compared to non-innovative products and services. What can you conclude about innovative products?

Case Study: Microsoft Zune

Microsoft developed the Zune as a portable music device. It was a competitor to Apple's iPod and looked very similar. A number of different Zune's were made including lightweight and heavier versions of Zunes. Due to the interest in nostalgic technology products there is a market for Zune's online. The Zune was functional and offered people the ability to listen to music whilst moving but was considered not as good as the iPod. In 2011 Microsoft stopped making Zunes so much of the current market activity is based on trading second hand Zunes. Some people add new technology services onto Zunes such as increasing its storage capacity and wireless charging. Some discussion questions to consider regarding why the Zune failed in the marketplace:

1. Why do you think people collect Zune's?
2. How did the iPod and Zune compare?
3. What is the role of a company's brand name and the product name in its success?
4. What kind of differentiating product features would have made people buy a Zune instead of an iPod?

Lessons Learnt

- Organisations need to implement policies to properly manage innovation.
- It takes people from all levels of an organisation to manage innovation in an efficient way.
- To be successful innovation should be mapped out in terms of what needs to be done and why.

Discussion Questions

1. How important do you think it is for decision makers in an organisation to manage their innovation?
2. Do you think it is easier or harder to manage different types of innovation (eg product, process, service, technology)?
3. Do you think there is a formula or set approach to managing innovation in an organisation?
4. What do you think are the key steps in terms of obtaining an idea for an innovation then turning it into a market reality?
5. Do you think specific skill sets should be taught to business leaders to help them manage innovation?

Learning Outcomes

- Innovation in an organisational context is a complex process that requires time to implement.
- Key decision makers are responsible for introducing innovations into an organisation.
- Managers in an organisation need to consider what kind of performance outcomes are needed to measure innovation.
- Organisations that successfully manage their innovations realise that it involves change and adaptation.
- An organisation's key stakeholders need to be actively engaged in the process of innovation in order to ensure its proper implementation in the marketplace.

Conclusion

In this chapter, we have considered the role management plays in influencing people's attitudes regarding innovation. In some organisations, innovation is part of life and is encouraged. This means risk taking and creativity are viewed as necessary behaviours due to the way the world is changing. In other organisations, innovation is viewed as negative as it alters society and is not needed. This chapter has focused on how to manage innovation. It is easier said than done as it takes a lot of effort to ensure all levels of an organisation are onboard with the innovation. This means taking a top-down approach in terms of emphasising the importance of innovation and why it should be managed in the appropriate way. The chapter highlighted how innovation differs to entrepreneurship and creativity and the role it plays in an organisation's success.

Multiple Choice Questions

1. Incremental innovation occurs in an organisation when:
 - (a) small changes are implemented in a continuous manner
 - (b) large changes occur in a fast manner
 - (c) big alterations take place that transform society
 - (d) all of the above
2. Radical innovation happens in an organisation when:
 - (a) transformation occurs
 - (b) the existing market conditions are completely altered
 - (c) small changes occur
 - (d) a and b
3. Which of the following are innovation trends:
 - (a) digitalisation
 - (b) internationalisation
 - (c) open innovation
 - (d) all of the above
4. Innovation can be best defined as:
 - (a) positive changes that result in value adding activity to society
 - (b) a form of marketing communications
 - (c) stakeholder engagement with different communities
 - (d) none of the above
5. Entrepreneurial alertness is best defined by Lanivich et al. (2022: 1169) as:
 - (a) advertising information about new innovations
 - (b) continually adapting to market changes
 - (c) communicating about new trends in the marketplace
 - (d) the process and actions associated with finding opportunities based on idiosyncratic expertise and prior knowledge

Answers: 1. (a), 2. (d), 3. (d) 4. (a), 5. (d)

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Chapter 2

Types of Innovation and Innovation Failure



Learning Objectives

- To understand the role of innovation failure in an organisation.
- To assess how an organisation can learn from its failures.
- To identify why some innovations may fail despite the innovation being a good idea.
- To evaluate the challenges facing organisations when an innovation fails.
- To develop strategic ways of turning an innovation failure into a success.

Introduction

In this chapter, I consider the concept of an innovator in terms of who they are and how they innovate. In order to devise strategies to encourage innovation it is important to consider the tools and platforms people use to be innovative. There are many different types of innovation but the most common are product, service, technology and process (Schot & Steinmueller, 2018). This means when considering any form of innovation in an organisation care needs to be taken as to how it can be managed (Rip, 2012). Some forms of innovation such as product innovation are easier to manage than others, but it depends on the level of complexity that goes into the innovative idea particularly around crisis management (Ratten & Li, 2021). This chapter will discuss the types of innovation and why failure is part of the innovation process. Failure is a learning process so it plays an important part of innovation.

The dominant innovation types and their related keywords are stated in Table 2.1. A common and reoccurring topic relates to innovation development. This is due to the way innovation influences growth and productivity. Innovation when it occurs enables economies to adapt and change. This means there needs to be policies implemented about the innovation particularly those related to cultural conditions (Ratten, 2022). This will encourage more people and businesses to be involved in

Table 2.1 Dominant topics in innovation management

Topic	Keywords
Adaptation	change, variability, flexibility
Attitude	behaviours, stereotypes, social interactions
Community development	community, local needs, region
Corporate social responsibility	stakeholder involvement, cooperation, collaboration
Culture	common behaviours, relational norms, trust
Development	sustainability, policy, practice
Economic development	regional growth, cities, urbanisation
Information technology	artificial intelligence, robots, automatization
Management	governance, context, leadership
Planning	systemic thinking, futuristic, goal management
Resilience	COVID-19, sustaining growth, perseverance
Tourism	electronic commerce, globalisation, technology
Vulnerability	competitiveness, help, newness

innovative activity (Ratten, 2021a). Tourism related activities related to innovation are often encouraged by policy makers (Ratten, 2021b). This is due to the way tourism influences other forms of economic development in society. Recently there has been an increase in the sharing economy in terms of websites such as Airbnb gaining popularity. This has made more people interested in tourism activities and as a result there has been much innovation. Related to the tourism innovation trend has been advances in electronic and mobile commerce. This has led to many digital disruptions occurring as more people utilise digital technology. As a consequence, the rate of globalisation has increased but this has been negated in recent years due to the COVID-19 pandemic (Ratten, 2020a).

Innovation needs to be managed in the appropriate way. This means thinking about the governance structures of organisations and how they influence community development (Ratten, 2020b). This is particularly important for health innovations that require regulatory approval. Therefore, the right research and development monitoring activities need to be in place in order to track the innovation (Rajapathirana & Hui, 2018).

Innovation often involves community development in terms of managing local needs with regional activity. Therefore, a culture of innovation needs to be promoted. This will help to embed a sense of urgency regarding innovative behaviour. To do this members of a community should trust each other in terms of having a common innovation purpose (Purwaningrum et al., 2022). This will require the use of relational norms in terms of standard forms of behaviour.

Information technology plays an important part of most company's innovation activity (Mardani et al., 2018). Technology particularly regarding artificial intelligence is changing so companies need to stay up to date with advances (Jugend et al., 2020). This can include using robots or machines in workplaces. This then leads to the automatization of many tasks. Economic development involves innovation in terms of urbanisation. This is important in considering how smart cities are utilising new types of innovation. This helps cities become more people friendly and can lead to regional growth.

People have different attitudes to innovation. This is due to some people being naturally interested in innovation as they like change (Edler & Fagerberg, 2017). Others might have a negative view about innovation due to the perception it will result in new work or work become obsolete. Regardless of the perception, many topics in innovation management relate to the concept of attitude in terms of behaviours, stereotypes and social interaction (Hjalager, 2010). This means some people will behave more in innovation than others. This influences how they react to new trends and practices in the marketplace.

Increasingly corporations are involved in social responsibility activities that embed a sense of innovativeness (Boon & Edler, 2018). This normally means there needs to be stakeholder involvement in the social responsibility activity. The nature of this involvement can be direct or indirect. Often companies are partnering with charities or other non-profit entities as part of the social responsibility activity. Adaptation in terms of change, flexibility and variability is needed by business in order to compete (Dahlander & Gann, 2010). The rate of this change can be slow or fast depending on the circumstances. Slow change occurs over a longer time period and can be hard to characterise. This is due to the nature of the change not being immediately evident. Quicker changes are more easily discernible as they influence current and future work practices. In the COVID-19 pandemic, adaptation was needed particularly in terms of social distancing requirements and working from home mandates.

Resilience is needed by organisations particularly in terms of uncertainty. This means they need to wither crises and respond in a positive manner. In times of hardship some businesses may be particularly vulnerable. This means they need to alter current practices in order to survive. This can help their competitiveness in the long term. Responses should be planned in terms of thinking about innovation in a strategic way. This will enable new markets to be captured and allow a futuristic thinking pattern to emerge. To do this can be difficult due to the need to balance competing interests.

Case Study: Innovation in Australia

Australia is a country located in the southern hemisphere with a population of 25 million (approximately). Throughout the history of Australia, innovation has been important to the growth and competitiveness of the country. The reason for this is due to the remoteness of many locations in Australia but also due to the ingenuity of its population. Innovation as a subject has only recently gained traction in the past decade. Other countries most notably the United States have emphasised innovation education in their curriculum for a longer period of time.

Australia is amongst the world's largest countries by landmass and located on one continent. Most people in Australia reside in the main capital cities on the south-eastern seaboard. Canberra is the capital city of Australia and is located between Melbourne and Sydney. The climate in Australia ranges from very cold in Tasmania to an extremely hot desert climate in Alice Springs. Australia is one of the most flattest and driest continents with most of the inland area of Australia having desert-like conditions. Some discussion questions to consider:

1. How has the geography influenced innovation in Australia?
2. To what extent do you think location influences innovation?
3. How does Australia compare to other countries regarding innovative capabilities?

Context of Topic: Innovator Defined

There are many definitions of innovation existing in the literature and in practice so it depends on the type and context of innovation as to how it is defined (Bogliacino et al., 2012). Most refer to innovation as a positive change but some expect a more complicated reason for its occurrence. This is due to some types of innovation bringing about fundamental change in society (Bernstein, 2015). Therefore, each type of innovation needs to be considered and analysed in terms of its impact on society (Autio et al., 2014). This will help to ascertain the reason for the innovation and how it occurs in society.

Innovation occurs through a number of steps from the initial idea gaining traction to implementing resources for its development to commercialising the idea in the marketplace. Kahn (2018: 453) state that "innovation is three different things: innovation is an outcome, innovation is a process, and innovation is a mindset". Innovation as an outcome refers to what is achieved from the change. This can vary depending on the circumstances but normally involves some form of output that can be measured. This can include organisational shifts, business model alterations or the introduction of new products. Innovation as a process involves the steps or stages

that are needed in order to produce an output. Each step is different and varies in time length. This means the steps should be managed based on how an entity wants to progress an idea. Thereby introducing a new stage as the previous one has been completed. Innovation as a mindset refers to the psychology behind the change.

The term innovator appears frequently in the innovation literature and in discussions. Practitioners working in the sector often talk about innovators who are individuals involved with the process of innovation. Simply defined, an innovator is someone who expresses an interest in innovation and is engaged in innovative activity. Innovative people are different to others as they enjoy focusing on new concepts and ways of doing things. Whilst most people like innovations, the process behind an innovation can take up much time and effort.

Not all innovators are the same as they have unique personality traits that make each person different. This means innovators will differ in terms of how, when and why they show interest in an innovation. A 'one size fits all' approach to defining an innovator is not possible due to the varying characteristics of each innovator in society. An innovator expresses passion in considering new ideas that go beyond what is currently being done in society. There is much excitement that accompanies any form of innovation. This is due to the uncertainty involved but also the hope in its usage. The behaviours of innovators can be represented on a continuum in terms of low to high degree of change. Low levels of change are reflected in innovators who make minor changes that often occur on a continual basis. High levels of change are reflected in innovators interested in radical alternations.

Innovators tend to have an emotional attachment to what they are doing. This means they can be innovators by profession or be hobby innovators who engage in innovation as a form of enjoyment. There are also accidental innovators who innovate because there is no other current product available that suits their need. In order to distinguish between different types of innovators it can be useful to categorise them based on how often they engage in innovation. This can be understood by focusing on the following categories of innovators:

- Casual innovators—these innovators are involved in innovation in an adhoc or sporadic manner. This means the innovation process is often unplanned and occurs by chance
- Regular innovators—these type of innovators regularly engage in some form of innovation. This can occur on a daily, weekly or monthly basis but it normally occurs at the same time interval
- Professional innovators—these people do innovation because it is part of their profession. This can include people such as artists, architects or teachers who willingly engage in new activity in order to produce a positive results.

Group Activity

In groups of 4–5 students get each person to discuss a food or drink that they tried but did not like. What was the reason they tried the new food or drink and why did they not like it? Then as a group pick one of these failures and design a new innovation that your group thinks would succeed in the marketplace.

Implementation Process

Innovation as a mindset refers to the psychology behind innovation in terms of why it is encouraged. Some cultures place more value on innovation because they like change. Other cultures will prefer the status quo and not want any alternations. Therefore, innovation needs to be considered in terms of how it is enabled or restricted in society. Understanding this process will enable a better way to grasp why innovation occurs in different contexts.

Innovation is everywhere in terms of how it occurs. Often people underestimate the way innovation is embedded in society as they take it for granted. Different segments of society emphasise innovation in different ways. For example, organisations in their marketing are using the words innovation as it is expected by consumers. Governments are trying to be innovative in the services they provide and consumers are becoming co-creators in the innovation process.

Innovation as a subject is taught by universities but mostly in business schools. This is due to the expectation of business leaders to be innovative. It is also taught in other schools because of the need to think creatively. Innovation as a word has been overused because of its simplicity in terms of most people understanding its meaning. It can be translated into other languages in a relatively easy way making it globally popular. Despite the word innovation being constantly used some people use the word in an incorrect manner. This is due to the inability to properly manage the innovation process. Once an idea is suggested to people in an organisation it is then up to the people involved as to how and if it progresses. Some ideas will be implemented by the person who came up with the idea as it is relatively easy to do. Other ideas may be hard to implement due to bureaucratic rules.

Innovation in order to make a difference to an individual does not need to involve major change. Rather it can involve a better way to use a product or mean additional product benefits. This means innovation is evaluated by the person using it to decide whether it is useful. Dziallas and Blind (2019: 4) defines innovation as “a term referring to both innovative ideas that are intended to be commercialised in the market and ideas that have already been successfully commercialised”. This means innovation can have intended or unintended consequences depending on the context. Most forms of innovation are developed with the hope they will be implemented into the broader economy. Although some innovations are protected due to intellectual

property reasons and enable an organisation a competitive advantage in the marketplace. Unintended consequences occur from surprises that happen from changes in usage. Whilst an innovation can be developed for a specific purpose, there can be unknown usages for it that only emerge when it is used by others. Therefore, through implementation the innovation usages can be adapted. This means some degree of flexibility is required when measuring the impact of an innovation.

Key Aspects in Success

The front-end process of innovation refers to how ideas are generated (Dzallas & Blind, 2019). This means the initial first steps a person or organisation takes when developing an innovation. It involves how ideas are screened in terms of their suitability. This screening process can differ from evaluating ideas for their marketability to finding out what potential profits will result from the innovation. Before ideas start the formal development process they should be tested. This can include prototyping ideas to finding out whether they would work in practice.

The culture of an organisation can be measured by the percentage of people involved in creativity activities. Alternatively, it can involve the amount of time spent on innovation within the organisation or the number of new ideas that are being generated. Torfing (2019: 1) states “innovation involves the development and implementation of new ideas that disrupt the common wisdom and habitual practices that hitherto dominated the solution context”. This means the conventional thinking in a specific context is changed by the innovation. This can occur through the ways things occur or how things are made. It is more than continual improvement as there is a fundamental alternation in current practices. This means transforming existing modes of behaviour by reimagining them in a new way. In order for innovation to be successful people need to invest time and energy in the process. This means forgiving short term needs for long term benefits.

There can be insurmountable barriers including bureaucracy inertia to innovation. This can result in new organisations entering the marketplace as they are providing innovation benefits. Innovation can provide a way to solve problems that have existed for some time. Thereby offering a cost effective alternative to current practices. This means there is growing recognition that innovation is an intelligent solution.

In the public sector it can be hard to be innovative due to the lack of incentives. This includes an absence of competition and need to change. Although there are many people and entities in the public sector who are innovative. This includes decision makers who want to implement positive change. They can be innovative by mobilizing government resources in order to implement innovative solutions. By designing a swift approach to innovation, it can then lead to better outcomes. In order to quicken the innovation process decision makers need to share their ideas with others. This will help others to see the potential of their idea and to offer advice. This includes sharing information and updating others about the progress.

Innovation can be a competitive advantage and for this reason it is protected. Thereby sometimes others reverse engineer innovations in order to find out how they are made. This can then lead to frugal forms of innovation that are cheaper versions of the original innovation. Frugal innovation is popular in developing countries where the costs of production are lower and people need cheaper products.

Advantages and Disadvantages

Innovation can take a variety of formats so it is important to consider each formats advantages and disadvantages. This means thinking about the positive but also negative associations with different innovation formats. Table 2.2 states these advantages and disadvantages in more detail.

Classroom Activity

In groups of 4–5 people design a chart that shows different types of innovation. Try to include a picture of each type of innovation. This will help to show what each type of innovation is and how it occurs in society.

Organisation Example: Mobile ESPN (see <https://www.espn.com.au/>)

ESPN a sport broadcasting company started to offer in 2006 a phone that enabled viewers to watch exclusive content. At the time mobile internet and unlimited download capabilities were not offered on phones and internet services were very expensive. The phone for this service was a flip phone

Table 2.2 Advantages and disadvantages of innovation formats

Advantages	Disadvantages
1. Innovation needs to be considered in different formats (eg product, service, technology, process) 2. Innovation can occur in a variety of different ways 3. Innovations do fail so this should be acknowledged in organisations 4. The timing of an innovation may be an issue in its success 5. Innovation involves organisations learning new things that have flow on benefits	1. It can be difficult for organisations to manage too many different types of innovation 2. Innovation should be managed in a systemic way in order to increase its likelihood of success 3. Innovation can take time to develop so experimentation is needed 4. Other entities may be needed to help implement an innovation 5. Innovation is a key strategy for an organisations success so needs to be acknowledged as an asset

and not one of the more newer versions. This made it difficult to use compared to other phones offered in the marketplace. The phone sold for a specific price and there was an additional monthly fee to access the content. ESPN spent a lot of money in developing this idea, but the service stopped after a year. The idea behind the phone service was so that consumers could access real time sport scores and matches. As there are many loyal followers of sport events and teams, this idea seemed like it was a profitable one. Some consumers felt that the small screen of the phone made it hard to watch games. The phone for the service was relatively expensive compared to other phones. The phone launch was considered a failure as it only achieved a small percentage of total projected sales. Please consider the following questions:

1. Do you think this failure led to subsequent innovation successes?
2. Was the cost of the phone the main reason for the failure or were there other reasons?
3. Do you think better market research would have led to a more successful innovation?

In Class Debate Question

In class divide the class into groups who agree or disagree with the following statement. As part of the debate, research why you agree or disagree and provide reasons for this choice. You should also give detailed organisational examples that support your reasoning.

- All innovations regardless of the level of sophistication will fail at some point.

Internet Exercise

Choose an organisation that you think has not kept up to date with market trends. Research online the reasons for this failure. Was it because of management misdirection or for some other reason?

Application Activities

1. Analyse an innovation failure of your choice. Suggest ways that the innovation could have been improved to make it a market success.
2. Interview a student to find out what products or services they thought would be innovative but were not. Report any reasons given for the innovation failure to deliver what was promised.
3. Imagine you are a consultant working on an innovative idea. You have been asked to provide advice for how it can succeed in the marketplace. What strategies or recommendations would you suggest to ensure the innovation is well received?

Lessons Learnt

- Innovation can occur in an incremental or radical way so it is important that organisations are aware of the different ways it can occur.
- There are various different types of innovation with some being more complex than others.
- Often innovation will not succeed straight away so there will be mistakes that occur prior to it being implemented in the right way.

Discussion Questions

1. Why do you think some innovations fail? Is it because of the idea or due to a lack of organisational support?
2. Do you think a lack of research and development results in less likelihood of an innovation being successful?
3. What kind of innovations (eg. product, service, technology) are more likely to fail?
4. What kind of environmental effects influence the rate of innovation failure?
5. What can be done to make organisations learn from failure?

Learning Outcomes

- An organisation can implement processes to help make an innovation more likely to succeed.
- Innovations that fail can still be used in other innovations.
- Organisations can learn from innovation failures and build this knowledge into the development of new innovations.
- Organisations need to implement support systems to help individuals overcome failure associated with innovation.

- Organisations should develop strategic plans in terms of goals and outcomes to turn an innovation failure into a success.

Conclusion

This chapter has focused on explaining different types of innovation and how they are used in society. This is helpful in understanding how organisations manage innovation and how this is done in various contexts. Learning and adapting from change is part of the innovation process. Therefore, this chapter highlighted how organisations can be flexible in terms of acquiring information that then leads to the success of an innovation.

Multiple Choice Questions

1. What are the most common types of innovation?
 - (a) product, service, technology and process
 - (b) product and service
 - (c) technology and process
 - (d) none of the above
2. What are the best keywords to describe adaption with regarding to managing an innovation?
 - (a) sustainability, policy, practice
 - (b) change, variability, flexibility
 - (c) behaviours, stereotypes, social interactions
 - (d) regional growth, cities, urbansiation
3. What are the best keywords to describe information technology?
 - (a) community, local needs, region
 - (b) stakeholder involvement, cooperation, collaboration
 - (c) artificial intelligence, robots, automization
 - (d) none of the above
4. Innovation as an outcome refers to:
 - (a) what is achieved from the change
 - (b) the steps or processes needed to produce the change
 - (c) the circumstances that lead to change
 - (d) the mindset enabling the innovation to take place

5. Casual innovators can be best described as:

- (a) regularly engaging in change
- (b) being involved in innovation in an adhoc or sporadic manner
- (c) do innovation as part of their job
- (d) none of the above

Answers: 1. (a), 2. (b), 3. (c), 4. (a), 5. (b).

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Chapter 3

Innovation Ecosystems



Learning Objectives

- To understand the way innovation ecosystems develop in society.
- To identify the main characteristics of an innovation ecosystem.
- To assess the relationships between different entities in an innovation ecosystem.
- To understand why innovation ecosystems need to be utilised by organisations.
- To assess how politics influence the success of an innovation ecosystem.

Introduction

Innovation can be understood in an ecosystem environment (Benitez et al., 2020). This means considering how various entities in an environment including people, business and the community contribute to the development of innovation (Davis & Eisenhardt, 2011). This highlights how innovation does not occur in a vacuum but rather requires the input of others (Fawcett et al., 2012). Therefore, a stakeholder approach to innovation is needed in order to consider different people's attitudes towards change.

Innovation ecosystems are a network-oriented concept that focuses on the linkages between people and entities in society. It recognises that information is disseminated in society based on network relationships. Thereby it emphasises the way certain people may have more power than others because of their position in society. It acknowledges that the position and influence of people in society changes over time.

The idea of innovation occurring in an ecosystem has rapidly gained popularity in the last few years. This is due to the way it explains how innovation occurs and recognises the influence of others in the process (Hartley et al., 2013). Previously the emphasis was on the innovator or company rather than the context. This view has changed with the realisation that innovation was occurring at a higher rate in some places. Therefore, more emphasis is now placed on the context in terms of

geographic or online position of an entity. There are numerous reasons why some regions or places are more innovative than others.

The ecosystem approach is not exclusive to the innovation field as it is also used in other fields including biology and environmental science. Within business management studies it is used mostly for entrepreneurship research but also to understand economic and financial situations (Ratten, 2022). This is due to the way it explains the context of entrepreneurship and the movements between entities in an environment. Spigel (2017: 49) defined entrepreneurial ecosystems as “the union of localised cultural outlooks, social networks, investment capital, universities and active economic policies that create environments supportive of innovation-based ventures”. This complicated definition has a number of sub-components including the suggesting that a union of cultural outlooks takes place. This means there needs to be some sense of community regarding the goals and reasons for the entrepreneurial behaviour. It is easier if entities are working together rather than competing in a local area. This will facilitate mutual action and lead to better results. Although it is acknowledged that even with mutual cooperation there will always be some degree of competition. This is why the next part of the definition in terms of social networks is stated as it recognises the need for interaction in terms of knowledge flows. Information is power and when it is used in the right way creates a source of new knowledge. Within a localised context, knowledge spillovers that occur in an accidental way can help spur additional business activity. This is useful in terms of information spreading to others who can then use it for their own purposes (Ratten, 2021). Investment capital is needed for entrepreneurship as financing is required for business ventures. The nature of investment capital means that people and entities are placing money into certain ventures. Thereby wanting businesses to be successful in terms of their overall performance. Universities are included in the definition thereby highlighting how the commercialisation of research results in entrepreneurship. Higher education is important in entrepreneurship and facilitates public/private partnerships. Active economic policies mean that for an ecosystem to be classified as entrepreneurial there needs to be some form of government engagement around economic activities. This can include different types of policies such as tax incentives or tariff reductions that enable business activity to progress. Also emphasised in the definition is innovation-based ventures. This refers to proactive and positive business endeavours.

Context of Topic

Theodoraki et al. (2022: 347) state that “the ecosystem is a transdisciplinary concept derived from biology to designate the basic ecological unit of the environment (i.e. biotype) and the organisms living within (i.e. biocenosis) that evolve in a beneficial relationship (i.e. symbiosis)”. This means that an entrepreneurial ecosystem has a number of main components that work together to create beneficial outcomes. There needs to be an environment which normally refers to a geographic context but can

also be an online context. The organisms are entities that evolve and change based on the situation. This means some organisms will thrive whilst others will wither and die. The condition of these organisms is based on what kind of sustenance they receive. In the natural environment this would be food, sun and water but in an artificial environment it refers to the support others give. The symbiosis in terms of beneficial relationship is an important component of an ecosystem. This means that entities help each other out in different ways. Thereby similar to a circular economy concept, in terms of entities providing inputs and outputs to each other, the same happens in an ecosystem.

Group Activity

In groups of 4–5 students choose a place that you think of as innovative. Research what kind of people and businesses reside in this place and discuss how this has contributed to the innovation occurring within the region. Draw on a piece of paper or on the computer how this innovation ecosystem works and its main entities.

Innovation Ecosystems and Social Cognitive Theory

Innovation and entrepreneurial ecosystems require the systemic interaction of individuals and entities in society. This means there is an emphasis on the social networks that facilitate information flow for innovation purposes. Social cognitive theory is a way of understanding how the social environment influences behaviour. Hartmann et al. (2022: 16) states that “social cognitive theory suggests that personal factors, environmental events, and individuals’ behaviour interact to predict individuals psychosocial functioning”. Personal factors such as personality or knowledge can influence their engagement in entrepreneurship. For some people they have grown up being involved in entrepreneurship through family business. For others they like to take risk and be involved in innovation which has influenced their desire to start new businesses. Environmental events such as famines, wars or political change influence the way individuals perceive entrepreneurial endeavours. In times of crises, entrepreneurship may be a necessity and way to survive. In good economic times, entrepreneurship can be viewed as an opportunity in terms of filling a market need (Ji & Miao, 2020). Prior entrepreneurial experience means that an individual will have knowledge about the steps needed to start a business venture (Ketchen et al., 2007). This means that there are many platform or habitual entrepreneurs that continually start new businesses.

Innovation Ecosystem Implementation Process

Innovation ecosystems develop at steady rates based on social interactions. However, in times of crisis they might differ in terms of the type and rate of innovation. A crisis can generate negative outcomes if a business is not prepared. This is why leaders are needed in order to ensure that the crisis is managed in the right way. The response to the crisis will depend on its size and length. Some crises are sporadic and occur on a frequent basis. This means they are more likely to be predicted and this should make it easier for leaders to play their response. Unanticipated crises are less frequent and can be surprising events. This means leaders can be shocked by their occurrence.

A crisis is different to other kinds of events as it is potentially disruptive. This means it is abnormal and most leaders would have little knowledge about it. In order to better manage crises leaders need to have the skills and knowledge to respond to change. Crises can be differentiated based on whether they are environment, political or financially related. Environmental crises include typhoons, bushfires and tsunamis but can also involve other kinds of change. This can include soil conditions or water contamination. Therefore, when thinking about environmental crises there needs to be some form of holistic thinking in terms of possible future forms of crises. Political crises refer to changing government conditions that might result in a stopping of essential services. It can be a various levels of government control including the community, local, regional, national and international level. Financial crises involve an event related to money. This can involve a sudden shortfall in revenue or production sources.

Innovation is associated with business activity as it is concerned with creating value from ideas (Lindsay et al., 2021). This means it is more than just inventing something as the invention needs to have commercial value. In order for something to be considered innovative there needs to be some form of newness or novelty (Ollila & Ystrom, 2016). Therefore, not all innovations involve large change as it can include minor alterations. The idea that leads to innovation needs to be new to the environment. This implies ideas already in existence in other fields can be considered innovative when introduced in a new way. Therefore, the perception of newness is important.

Key Aspects in Success

Often innovations occur when an idea in a different country context such as iced tea is introduced into another country market. This means for many the new product is considered innovative as the people in the country mostly have not consumed it before. However, for some the product innovation is not innovative as it has been in existence in their country for a long time period. This often occurs with food and drink innovation whereby existing ideas are borrowed and used in new contexts.

Table 3.1 Advantages and disadvantages of innovation ecosystems

Advantages	Disadvantages
1. Enables the thinking of innovation as a living and ongoing process	1. Recognises there are politics regarding innovation
2. Recognises the interlinkages between different elements in the environment	2. Highlights the need to consider power dynamics
3. Highlights how different organisations have more power to develop innovation	3. Considers innovation as an ongoing and complex process
4. Recognises the need for innovation policy	4. Highlights how different regions have better innovation practices
5. Highlights how the actions of one entity influence the actions of others	5. Recognises that culture plays a role in the success of an innovation

Many people consider innovation as a form of technological change due to its association with technology services (Greer & Lei, 2012). However, technical change is one part of innovation as innovation generally refers to the introduction of a disruptive idea. Some ideas are initially considered as far fetched or not possible until they become a reality. This means there are a lot of naysayers who think that an innovative idea is a bad idea. Only with time can these innovative ideas progress. The idea behind innovation is that it brings something different into the market environment. Thus, it normally is associated with business in terms of being able to be produced for a profit.

Advantages and Disadvantages

Innovation ecosystems provide a way for ideas to gain momentum with the help of others. They are considered essential to the functioning of an innovation society that prides itself on the creation of new ideas. Whilst innovation ecosystems have many advantages in terms of facilitating information exchange and the dissemination of ideas, there are also negative effects that stem from the need to manage multiple interactions. Thus, as Table 3.1 states both advantages and disadvantages of innovation ecosystems need to be considered.

Entrepreneurial Ecosystems

An entrepreneurial ecosystem is sometimes referred to as a business or innovation ecosystem to denote the business and change focus of the ecosystem. Although an entrepreneurial ecosystem emphasises much more in terms of new business ideas than a business or innovation ecosystem (Ratten, 2020a). A business ecosystem refers to the general interaction occurring in an economic environment but does not emphasis

new thinking. An innovation ecosystem does as it incorporates the idea that growth is needed for economic activity to continue (Ratten, 2020b).

Entrepreneurial ecosystems are a core concept in entrepreneurship and a fundamental way to understand entrepreneurial activity. Despite its popularity entrepreneurial ecosystems are hard to describe due to the general nature of the activity that can occur in a multitude of ways. Therefore, it can be helpful to focus on additional types of entrepreneurial ecosystems such as sustainable ones.

Isenberg (2011) suggested that the main domains of an entrepreneurial ecosystem are: policy, finance, culture, support, human capital and markets. Policy refers to the guidelines introduced around market activities. This can include leadership objectives about what type of industries are prioritized. Policies change all the time, so it is important to keep up to date with these changes. Culture refers to how people behave in a region. This can be based on historical factors or socio-demographics. Support involves others that can help people or entities with innovation. Normally this means government bodies but can also refer to non-profit initiatives. Human capital refers to the people in a region in terms of their education and experience. Markets refers to what kind of industries and businesses are located in an area.

There are interconnected forces working together or in competition in localised geographic areas. This means they can support entrepreneurial activity by pursuing positive change. Entrepreneurship can have a social impact when it occurs as a relational process (Ratten & Usmanij, 2021). This means that impact investors, mentors and other organisations work together on a common goal. These entities are further influenced by context-specific networks that have local knowledge. Thereby helping to facilitate value creation by addressing market needs.

In an entrepreneurial ecosystem some entities are more involved than others and are in a better position to identify market opportunities. This makes them have an entrepreneurial mindset in terms of being aware of the need to capture opportunities. Not all opportunities can be acted on immediately so it can take time to alter the market (Sorensen & Torfing, 2011). It is not clear why some entrepreneurs differ in the extent to which they leverage opportunities, but it can depend on their experience or knowledge of the situation (Si & Chen, 2020).

Classroom Activity

In groups of 4–5 people draw an innovation and entrepreneurial ecosystem. You could choose a specific city or region in terms of what types of business and industry are located in the area. In your picture include the most important entities in the ecosystem and how they interact with others. Try to include arrows and other symbols in terms of how the innovation works. This will help to evaluate what the innovation ecosystem needs in order to succeed.

Organisation Example: BigM Chocolate Flavour Change

BigM is a maker of flavoured milk drinks that are popular in Australia. In 1978 Big M launched its first milk products in the marketplace. The company in 2014 changed the flavour of its products to stronger flavours by increasing in its chocolate flavoured drink the cocoa content. Consumers did not like the change so the company offered original and revised versions of the chocolate milk drink. The company spent a long time researching the new chocolate flavour but consumers preferred the classic drink. Some questions to consider:

1. Why did the change in flavour fail?
2. What kind of new innovative milk drink products have entered the marketplace in the past decade?

Collaborative Innovation

Collaborative innovation is central to how organisations create value form partnerships. In order to enable innovative ideas to progress it can be helpful to have others involved. This helps share the risk and burden of the idea. This is a strategy for organisations who want to access resources or ideas from others. In an increasingly uncertain and open business environment, it is likely that these partnerships will result in the best innovations being developed.

Every organisation has their own processes and structures for innovation. This means well established mechanisms for developing innovation exist in an organisation. Davis and Eisenhardt (2011) suggest that there are three main mechanisms for collaborative innovation: (1) activation of relevant capabilities, (2) a deep and broad innovation search trajectory and (3) the mobilization of diverse participants over time. The activation of relevant capabilities means focusing on what an entity is good at doing. This will help the entities involved develop interdependent projects that product join gain. Increasingly this involves focusing on different parts of the value chain that requires the input of multiple entities.

To encourage the development of capabilities it helps for the entities involved to be in frequent contact. This will enable trust to develop that leads to the sharing of information. Thereby leading to mutual learning about potential new business ventures.

Partners in a business relationship need to capitalise on their synergies. This means learning from both successes and failures. To do this may require some kind of evaluation about how the partnership is going. This means obtaining feedback about improvements and then adjusting behaviour. Over time when this happens the partners are more likely to share relevant and timely information. This then leads to complex problem solving that requires the input of all partners involved. A deep and broad innovation search trajectory means accessing existing knowledge about

possibilities. This means searching for useful information in a way that brings the best results. The mobilization of diverse participants over time involves involving others in the groups activities.

Pursuing any kind of entrepreneurial endeavour takes psychological strength in terms of persevering and being determined. Entrepreneurs in the initial stage of a business often face many challenges that are hard to overcome. This means they need to be resilient and have a positive attitude. Due to the various forms of adversity entrepreneurs face they need to think in a creative way. This helps them overcome market shocks and financial difficulties. In order to lead a successful new venture, an entrepreneur will face obstacles. This puts a strain on their capacity to persist in the marketplace.

In order to facilitate entrepreneurial health, it is helpful to understand how they deal with challenges. Psychological resilience is a way to measure an entrepreneur's resilience. Hartmann et al. (2022: 2) defines psychological resilience as "positive adaptation despite adversity". The experience involves knowledge about challenges that are faced in the business environment. Adaptation refers to change or alterations from stress. Psychological resilience involves the behaviour associated with surviving a crisis. This means it is a process as well as an outcome.

Williams et al. (2017: 742) define an entrepreneur's psychological resilience as "capability endowments to interact with the environment in a way that positively adjusts and maintains functioning prior to, during, and following adversity". This definition emphasises the prior, during and following stages of adversity. In the prior stage it recognises that there is a need for entrepreneurs to plan for hardships. To do this means hypothesising potential changes in the market environment. Not all changes can be predicted as it can be difficult to guess what will happen in the future. Therefore, some estimations are used in evaluating potential change. During the adversity involves focusing on what can rather than what cannot be done. This will be dependent on the ability to access resources and obtain the required financing. If many or all entrepreneurs are facing the same kind of adversity, this can be hard to do.

In Class Debate Question

In class divide the class into groups who agree or disagree with the following statement. As part of the debate, research why you agree or disagree and provide reasons for this choice. You should also give detailed organisational examples that support your reasoning.

- Every innovation or entrepreneurial ecosystem has the same ingredients.

Leadership and Motivation During Crises

Leaders are often evaluated by how they act and react in a crisis. In order to address the demands from others, leaders need to show effective skills in times of crisis. A crisis is defined by its low probability of occurrence but high impact when it does occur. This means it threatens the existence of a business and can restrict activities.

A crisis is unexpected and can make finding the right response difficult. This means there are many emotions associated with a crisis. The viability of a business is questioned when a crisis occurs. This means the swift changes caused by a crisis make business leaders rethink their existing practices. In order to respond properly, leaders need to make critical decisions based on the information that is available. Entrepreneurs are embedded within their environment, so they do not act in isolation but rather as a result of contextual factors. This means an entrepreneur's behaviours and responses are contingent on how they perceive new market opportunities. There are many motivators for people to behave in an innovative way. These motivations differ by socio-demographic group and geographic location. They also differ based on whether the innovation is necessity or opportunity based. The main motivations are stated below:

Enjoyment: people enjoy making and producing new things.

Habit: people out of habit like to be involved in business ventures.

Family involvement: an individual's family has a history of business ventures.

Social interest: a social interest has made a person be entrepreneurial.

Leisure activity: a leisure or recreational interest has influence entrepreneurial behaviour.

Financial: one of the most common reasons is a interest in making money from entrepreneurial activity.

Internet Exercise

Choose a city that you think is very innovative. Research online what kind of organisations exist in the city and how they have contributed to the innovation culture.

Application Activities

1. Choose an innovative suburb, city or region and find an advertisement for it. What kind of messages are conveyed in the advertisement regarding innovation?
2. Interview a person who comes from or lives in an innovative place. Why is this place innovative and how do different entities interact in the region?

3. Interview a student and ask them to describe what makes a place innovative. Ask them to describe what kind of services and amenities the place provides for its citizens.

Athlete Innovation

The sport sector is big business and influences other sectors of the economy such as education, health and tourism. Athletes can earn income through the practice of their sport but also through marketing endeavours. Not all athletes are financially motivated as some are amateur and community enthusiasts of sport. This means when considering the innovation that occurs in the sport sector it can be helpful to analyse firstly what sport an athlete plays and whether they are in a professional or amateur status.

Athletes have an image that they can use in a variety of ways. In team sports this identity is linked to the way their team plays but in individual sports it is linked to the personality of the athlete. Athletes are marketing themselves as distinct individuals who are high performers. This means they are viewed as social influencers as what they say and do has an impact on other areas of society. For many, athletes' views on health and social influences means what they say will influence how others behave. Athletes can also influence political conditions with sport being used as a way to promote peace in many cultures. Athletes influence fashion trends as they often wear high performance gear before others are able to do so. In addition, the colour and fabric of athletic clothing has an influence on other fashion trends.

Lessons Learnt

- Innovation requires the input of many different people in society.
- It can be helpful to obtain the feedback and comments of others about an innovative idea.
- An ecosystem analogy in terms of innovation being like a living organism is a useful way to understand the process of innovation.

Discussion Questions

1. How do you think innovation ecosystems develop in society?
2. What is the difference between an entrepreneurial and innovation ecosystem?
3. Who are the most important entities in an innovation ecosystem?
4. Do you think geographic or digital innovation ecosystems are more important?
5. How can governments facilitate the growth of innovation ecosystems?

Learning Outcomes

- An innovation ecosystem can develop in different ways depending on the geographic location and type of businesses located in the region.
- The main characteristics of an innovation ecosystem is that it continually changes based on environmental trends and normally includes a range of participants such as innovators, organisations, government departments, consumers and other entities.
- Each entity in an innovation ecosystem will be connected in some way to others either in a direct or indirect way.
- Innovation ecosystems enable the use of knowledge spillovers that are helpful in identifying other innovation opportunities.
- Some entities because of the individuals involved or size will have stronger positions in an innovation ecosystem.

Conclusion

This chapter has focused on innovation ecosystems in terms of acknowledging the various entities that are important to the success of an innovation. The different components of an innovation ecosystem in terms of people, facilities and research institutions were acknowledged. In addition, the role of public policy in facilitating innovative ideas was highlighted. This is important in taking a more holistic approach to the management of innovation.

Multiple Choice Questions

1. Innovation ecosystems can be best described as:
 - (a) a form of marketing communications
 - (b) a part of economic development
 - (c) a network oriented concept that focuses on the linkages between people and entities in society
 - (d) none of the above
2. Spigel (2017) defined entrepreneurial ecosystem as:
 - (a) the union of localised cultural outlooks, social networks, investment capital, university and active economic policies that create environments supportive of innovation-based ventures
 - (b) a linkage between different parts of society
 - (c) an interaction occurring at one point of time
 - (d) none of the above

3. Social cognition theory can be best described by Hartmann et al. (2022: 16) as;
 - (a) when entities interact in the environment
 - (b) when personal factors, environmental events and individuals' behaviour interact to predict individuals psychosocial functioning
 - (c) all of the above
 - (d) none of the above
4. Environmental crises include what kind of events:
 - (a) soil contamination
 - (b) water contamination
 - (c) tsunamis
 - (d) all of the above
5. Isenberg (2011) suggested that the main domains of an entrepreneurial ecosystem are:
 - (a) policy, finance
 - (b) culture, support
 - (c) human capital, markets
 - (d) all of the above

Answers: 1. (c), 2. (a), 3. (b), 4. (d), 5. (d).

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Chapter 4

Resilience and Innovation



Learning Objectives

- To understand how organisations can be resilient in experimenting with innovation.
- To analyse the way crises have influenced innovation management.
- To identify the impact of crises on innovation management.
- To assess whether an organisation is resilient.
- To identify the characteristics of a resilient innovative organisation.

Introduction

Innovation can occur in an unplanned and surprising way (Anzola-Román et al., 2018). This can then lead to quick changes that enable better organisational performance. However, for most forms of innovation there is much planning and preparation that goes into the success of an innovation. For this reason, it can be helpful for organisations to develop resilient strategies that enable them to rebound from failure or miscalculations. This means more organisations need to be resilient when they develop, implement and manage innovation. This will ensure they have more long term success in the marketplace.

Case Study: Derwent (<https://www.derwentart.us/>)

Derwent is a company that manufactures pencils. Before pens became common writing instruments, pencils were used by most people. Many people still use pencils as they do not leave a permanent mark and can be erased. The Derwent pencil factor was established in 1832 to mass produce pencils. The pencils are traditionally sold in tin containers with different colours included. In Keswick

in the Lake District is the Derwent pencil museum. Whilst most people nowadays write with pens or type on a computer, there are still many people who like to write or draw with pencils. In addition, Derwent pencils are considered high quality and expensive pencils. Some questions to consider:

1. Why are Derwent pencils popular?
2. What is unique about Derwent pencils?
3. Why do some people still prefer to write with pencils even though now pens and computers are available?

Context of Topic

Traditionally it was thought that the arts and entertainment industries were the only places where people could be creative. However, nowadays it is recognised that any type of business or person can be creative. Reiter-Palmon and Illies (2004: 56) define a creative product as “one that is both novel or original and useful or appropriate”. This means to be considered as creative a product needs to be new and contextually-relevant. Thus, it should be developed based on the available resources for a current need.

Creativity involves the ability to discover solutions to problems. This means it is a distinct cognitive capability as it involves a specific form of behaviour. Through experimentation people can come up with new ideas but to be creative the ideas need to diverge from current practices. Thus, creative ideas are non-obvious and can be hard to obtain. Once they have been found, creative ideas are authentic and do not conform with what is currently being done.

In order to differentiate between creativity, creation and a creator Walia (2019: 238) stated that it is useful to think of them as “creativity as the originator of an idea or a variation; creation as an end result of creativity; and creator as someone who interacts with the field and the domain to perpetuate the creation”. This means an idea involves a creation process but to be considered as creativity it needs to involve authentic change. Thus, the creator or persons who pursues the idea is made to implement the idea into the marketplace. A creator realises that there is no right or wrong form of creativity. Rather it is based on the perceptions of others in terms of what is appropriate at a particular point in time. This means thinking about things in a new way by using critical forms of analysis.

Group Activity

In groups of 4–5 students discuss how you dealt with the COVID-19 pandemic. Try and discover the strategies each person used to cope with the change and how this influenced their resilience to deal with crises.

Implementation Process

Interest in innovation has been identified as a growing area of inquiry due to its linkage with productivity gains. The practice of innovation draws on many other areas of interest including economics, business management, politics, history and geography. There are some debates as to the nature of innovation and its impact on the wider business community (Buratti et al., 2022). At the moment there is no coherent structure to the practice of innovation. This is due to innovation being a broad label which refers to any kind of positive change. This means there is a great deal of diversity in how innovation is managed in society (Christensen et al., 2018). Innovation can be a hodgepodge of many different words and meanings. This means when discussing any type of innovation there needs to be clarification about what is being referred to (Granstrand & Holgersson, 2020).

Thursday Plantation

Thursday Plantation is a company that makes tea tree oil products. It was started by Eric White in northern New South Wales, Australia. The medicinal tea tree that has the Latin name *Melaleuca alternifolia* is native to parts of New South Wales, so a plantation was established in the area. In 1976 the company officially started, and it was developed based on the health benefits of tea tree. In 1988 a tea tree farm in Ballina began with the planting of 1.5 million trees. The products the company makes are based on the key ingredient of tea tree and include acne, anti-fungal, antiseptics, essential oils, face and body care, foot care, hair and scalp care, headaches, head lice, mouth care, sleep, sunburn and skin irritants. Other natural ingredients including eucalyptus oil, lavender oil, peppermint oil, arnica oil, manuka honey and aloe vera are also used in some products (www.thursdayplantation.com.au). Some questions to consider:

1. What was innovative about Thursday Plantation's products?
2. What kind of new products should be developed?

Key Aspects in Success

Traditionally intellectual capital has three main components: human, structural and relational. Human capital is the ideas and knowledge that a person has that they can utilise in an intelligent way. It can be acquired through natural ability or experiences. Individuals have skills and abilities but they need to be able to put them into practice. This means utilising competencies for a strategic benefit.

Structural capital refers to the existing procedures in terms of managing knowledge. This can include research and development centres that facilitate the exchange of information. In order to manage knowledge it can be helpful to have procedures that register new ideas. This then enables the knowledge to be disseminated in a more efficient way.

Advantages and Disadvantages

There are many advantages associated with having a resilient attitude towards innovation. It enables a person or entity to overcome hardships and persevere. This is important as innovation can be difficult and take time to develop. For this reason, being resilient enables the development of an attitude that focuses on success. The disadvantages of resilience mean that there may be too much focus placed on obstacles rather than progressing with an idea. The main advantages and disadvantages associated with resilient forms of innovation are stated in Table 4.1

Table 4.1 Advantages and disadvantages associated with resilient forms of innovation

Advantages	Disadvantage
1. Enables an organisation to overcome hardship	1. Focuses too much on crisis management
2. Means that the long term rather than short term is focused on	2. Can mean that alternative avenues are not explored
3. Enables hurdles to be avoided with the appropriate forms of planning	3. Means that organisations can focus too much on the long term whilst neglecting short term objectives
4. Takes into account difficulties with developing an innovation	4. Focuses on the stresses rather than everyday occurrences
5. Highlights that not all innovations will be successful quickly	5. Highlights the need for different actions to take place

Social Innovation

Social innovation refers to “innovative activities and services that are motivated by the goal of meeting a social need and that are predominately diffused through organisations whose primary purposes are social” (Mulgan, 2006: 146). There is a growing interest in social innovation due to some sectors of society being marginalised and requiring help. As there is less reliance on government to provide these services, social organisations are stepping in to help. Social innovation is similar to social business and social entrepreneurship, but it does not have to involve a new business venture (Ratten, 2018). Rather it can refer to a new idea that has a societal component gaining acceptance in the marketplace.

The word ‘social innovation’ is used in a positive way to denote some form of change that brings in a social component to the innovation process. This can include social issues such as living costs, access to services and inequality. Communities and organisations in society are becoming interested in social innovation due to the lack of government funding. This means the prevalence of social problems is making people pay attention to social innovation. Popular topics related to social issues such as fair trade, work/life balance and environmental sustainability come under the umbrella of social innovation (Ratten, 2022a).

Social innovation requires ingenuity in the development of ways to help society. This means it is often conceptualised as an original or unique way to solve social problems. Phills et al. (2008: 36) describe it as “a novel solution to a social problem that is more effective, efficient, sustainable, or just than existing solutions and for which the value created accrues primarily to society as a whole rather than individuals”. This means the objective of social innovation is to find new ways of creating value in society that collectively helps all rather than just specific individuals (Ratten, 2022b).

The concept of social innovation is relevant to all parts of society regardless of wealth. This is due to some social issues such as climate change affecting everyone. This implies social innovation can help shape or encourage transformation by focusing on the reasons for a social problem. For innovation to make a difference, persistent equity issues need to be resolved. Thus, the social part of the innovation process needs to bring about fairness and justice in society. This means the emphasis is on social value co-creation that occurs in an ecosystem environment. Value co-creation can occur in many different ways but normally involves deliberate action. This means individuals and entities intentionally focus on social change. By doing so they might utilise their social capital in the marketplace. Nahapiet and Ghoshal (1998: 243) define social capital as “the sum of the actual and potential resources embedded within, available through, and derived from the network of relations possessed by an individual or social unit”. Therefore, the resources that are available to an individual can be used for social innovation purposes. The network of relations includes any other person or entity that is useful in society. For example, other businesses, institutions, individuals and associations. When social capital and social innovation are combined it results in social innovation capital (Foroudi et al., 2021). This is the

knowledge a person or entity accumulates from being involved in social issues. They can then access this knowledge to develop new innovative partnerships (Karhade & Dong, 2021).

Social innovation is a tool used to create sustainable value that provides relief to society. This means it has a commercial and social component in addressing social issues. In order to enable beneficial social change, there should be some form of community led social responsible action. This means that a community collectively acts in a way to solve socio-economic problems. The theory of community psychology has been used to describe this process as it suggests that behavioural solutions are needed to solve community problems. Foroudi et al. (2021: 449) states that “the theory of community psychology and its application to social innovations focuses on fostering social transformation with interventions in different levels (e.g. individual, community, societal) by addressing social problems by caring and putting on effort with a sense of shared humanity”. This results in an emphasis on the well-being or health of society based on living conditions. This implies that there are certain living standards required that all entities in society should have access to.

In order to assist in social innovation there needs to be government and institutional support. This will enable data and information to be shared for social innovation purposes. Social innovation can involve product or service change that results in new resource combinations. This means there are genuine differences in the way innovation is utilised. Product innovation can be easier to describe than service innovation as it involves tangible modifications. Service innovation still involves change but can involve recombination's of products that result in novel solutions (Vargo et al., 2015). Knowledge is a resource that people can use to create social innovation. This means it generates a competitive advantage when used in the right way.

Classroom Activity

In groups of 4–5 people draw an example of a resilient innovative product or service and then draw a picture of a not so resilient innovative product or service. In your comparison try to include detail on how the resilience occurs.

Organisation Example: Colman's of Norwich (<https://www.colmans.co.uk/>)

Colman's of Norwich is a company that makes mustards, condiments, recipe mixes, pour over sauces and season and shake mixes. It was started by Jeremiah Colman in 1814 in Norfolk, the United Kingdom. In 1855 the bull's head logo was introduced onto the packaging and is a trademark of the company. In 1866 a royal approval was granted that enabled the company to say they manufactured to Her Majesty the Queen Victoria. In 1903 the company bought Keen Robinson & Co, which manufactured mustard. In 1995 the company

became part of Unilever but remained selling products under the Colman's name.

The mustard seeds for the mustard products are crushed then sieved in purifiers to make the mustard powder. The company tries to use sustainably sourced mustard seeds. One of the original products still available to buy is mustard powder. It is a superfine powder designed to add flavour to dishes. The mustard spread is put onto food typically meat dishes or sandwiches. Colman's is a heritage brand and closely linked to history. Some discussion questions to consider:

1. How has the logo of the company contributed to its success?
2. How has history and tradition been utilised in the company?
3. What new products would you recommend the company develop?

Community Enterprises

Buratti et al. (2022: 1) defines community enterprises as “organisations that engage in commercial activity and operate for the development of a local community by bringing economic, social, and environmental benefits”. Community enterprises are a way to embed social and collective goals in business activities. They normally are built around needs that a local community faces in the business environment. This means they are considered as local enterprises due to their governance structure.

Community enterprises are often considered social enterprises due to their link with non-profit initiatives. This means they focus on attaining social goals that are not evident in other types of business enterprises. However, community enterprises differ to social enterprises due to their emphasis on community forms of development. Thus, they emphasise a specific geographic location's needs and wants.

To begin a community enterprise, a group of people in a specific location need to come together. This means they can form a community in which by definition refers to a group of people interested in a common issue. Communities are interested in different issues and may have an informal nature. This means when a community enterprise is formed it has a business purpose. It might not be immediately evident what the business purpose is as it can take time to develop. This means that community members might need to devote time and resources to its development. With perseverance the community enterprises then develops into a successful venture.

An enterprise is classified as a community enterprise when there is both community and enterprise elements in its structure. This means the community needs to be involved and it should have an economic or financial purpose. This combination of community and enterprise objectives is evident in Peredo and Chrisman's (2006: 310) definition of community-based enterprises as a “community acting cooperatively as both entrepreneur and enterprise in pursuit of the common good”. In the past there were many community-enterprises existing in practice but only in the past

twenty years has there been a focus on them from an entrepreneurship perspective. This might relate to more emphasis being placed on the word ‘entrepreneurship’ in society. Community enterprises have been in existence for a long time, but the entrepreneurship component might not have been emphasized.

Communities can be involved in different entrepreneurial goals such as cultural, environmental and social. The type of activity they are involved in will be related to the issues stressed by community members. Some of the contemporary issues community enterprises are involved in include political topics and public/private partnerships.

In Class Debate Question

In class divide the class into groups who agree or disagree with the following statement. As part of the debate, research why you agree or disagree and provide reasons for this choice. You should also give detailed organisational examples that support your reasoning.

- Organisations need to be resilient in how they manage innovation.

Internet Exercise

During the COVID-19 pandemic many organisations needed to be resilient with regards to developing innovative ideas. Choose an organisation that you think faced specific difficulties during the COVID-19 pandemic and how it was resilient.

Application Activities

1. Choose a product that you used more during the COVID-19 Pandemic. Discuss what made this product useful and whether it had any kind of digital technology features.
2. Interview one individual from your social circle and ask them what they consider to be a resilient product. Ask them how they think a product can be resilient and examples of this.
3. Interview a family and think about what products are still being used by both young and old members and why this continues. What kind of features do these products have that have made them still popular?

Lessons Learnt

- A resilient attitude is needed to deal with uncertainty involved with innovation.
- Due to the COVID-19 crisis, a resilient attitude regarding innovation is needed by organisations.
- Developing resilient skills ensure innovations become successful.

Discussion Questions

1. How can organisations build their resilience regarding innovation?
2. How important is it that organisations learn from failure?
3. How has the COVID-19 pandemic influenced innovation?
4. How can organisations utilise scenario planning in innovation endeavours?
5. What impact do crises have on an organisation's ability to predict innovation trends?

Learning Outcomes

- Organisations need to be resilient in terms of how they achieve good innovation outcomes.
- Crises influence the speed and pace at which innovation is developed.
- Health, financial and political crises all influence the type of innovation that is developed.
- Organisations can be resilient by using innovative strategies.
- Resilient organisations quickly implement innovative solutions.

Conclusion

This chapter has focused on how organisations can be resilient with regards to managing innovation. Due to the COVID-19 crisis, resilience has been emphasised in organisations as a strategic way to ensure success. Resilience means persevering in times of hardship and bouncing back from failure. This is important particularly when there may need to be many different iterations or changes to innovation.

Multiple Choice Questions

1. Derwent is a company that produces what kind of products?
 - (a) houses
 - (b) clothes
 - (c) computers
 - (d) pencils
2. Thursday plantation makes what kind of products?
 - (a) antiseptics
 - (b) hair care
 - (c) essential oils
 - (d) all of the above
3. What kind of innovation involves activities that are motivated by social need?
 - (a) social innovation
 - (b) sport innovation
 - (c) technology innovation
 - (d) food innovation
4. What word best describes the resources a person has due to their network of relationships?
 - (a) human capital
 - (b) intellectual capital
 - (c) social capital
 - (d) all of the above
5. Colman's of Norwich makes what kind of products?
 - (a) mustards
 - (b) condiments
 - (c) recipe mixes
 - (d) all of the above

Answers: 1. (d), 2. (a), 3. (a), 4. (c), 5. (d).

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Chapter 5

Entrepreneurial Innovation and Strategy



Learning Objectives

- Understand the concept of entrepreneurial innovation.
- Assess how organisations can embed an entrepreneurial orientation in their innovation activities.
- Highlight the role of entrepreneurs in organisational innovation.
- Analyse how entrepreneurial innovation is different to other forms of innovation.
- Evaluate how entrepreneurial the innovation activities of an organisation are in terms of its competitors.

Introduction

Entrepreneurial forms of innovation are important ways for an organisation to obtain a competitive advantage in the marketplace (Jones et al., 2019). This is due to them focusing on risk taking, futuristic thinking and proactivity. This means they differ to other forms of innovation as they highlight the alternative ways of implementing innovation that are different to past processes (Eder, 2019). This chapter will discuss the role of entrepreneurial innovation in society and why it is a useful form of innovation management.

Strategy is important for the success of any business as it enables them to outcompete rivals and position themselves better in the marketplace. There can be some difficulties and obstacles in developing a strategic plan due to the inability to predict certain events (Akyuwen et al., 2022). This means scenario planning in terms of thinking about potential trends and causes of action can be helpful.

There are many different interpretations of strategy, so it depends on the way it is used as to how it is defined. Strategy broadly refers to how a business will impellent ideas and acts in the future. This means it can be helpful to adopt a strategy in order

to managed goals. This then makes a business more accountable in terms of what they want to happen regarding innovation (Kusi-Sarpong et al., 2019).

There are many benefits to having a disciplined approach to strategic planning including better performance outcomes. Some organisations and entrepreneurs say they do not have a strategy but for most strategic planning is essential. Their strategy might not be written down but rather in their strategic thinking. Leaders of an organisation need to develop and implement strategies. This helps to assess the future and incorporate changes needed in order to fulfill goals. To do this, managers need to have empathy in terms of considering others feelings or suggestions. Increasingly emotional rather than intellectual intelligence is valued by business leaders. This is due to the need to analyse situations and consider different points of view.

Empathetic managers can use analytical and creative skills to assess the future. This will enable a better understanding of changes that might occur in the marketplace. Entrepreneurial leaders are those that see changes before others. This enables them to increase their competitiveness and outmanoeuvre competitors. By thinking outside the box in a strategic way gives them a better understanding of future trends. A first mover advantage when a business introduces a new product or service before others can be incorporated into business strategies. Being a first mover offers a strategic advantage as others become aware of the business. This helps their reputation in the marketplace by promoting the business as innovative. In addition, it can be difficult for competitors to catch up when another business has quickly advanced ideas. This means some businesses can replicate other business ideas but may do so in a less competitive manner. Although some companies are known as followers in the marketplace and compete based on price. This strategy can still be successful as price rather than product features or branding can be more valued by consumers.

In order to avoid confusion, it can help to have a written strategic plan. This can then be edited or changed based on market response. By articulating in a written form strategic objectives, it then gives a sense of responsibility for the organisation in terms of fulfilling their goals. In addition, by providing a written plan it can be easier to communicate and share with others. This provides a sense of clarity in terms of what the organisation wants to achieve.

Strategy can be a way to achieve a company's goals. This means it involves the direction a company wants to take in the future and how it will do this. Strategies evolve over time so they should be continually updated. This will help in incorporating new and emerging ideas. Over time a organisations position in the marketplace can change. Whilst it is hoped that the strategic position of an organisation will stay positive if there are new entrants it can change. Often these new entrants develop products that then make other products obsolete. Therefore, there can be a sense of surprise when an unknown organisation quickly becomes successful. A strategy provides a rationale for the way people think. This enables others to focus on key objectives and to achieve common purposes. Strategies need to have a specific goal that can be easily communicated to others.

Strategic Innovation Culture Checklist

In order to assess whether strategic innovation is being used in an organisation it can be helpful to ask the following questions:

- Is the company pursuing new ideas and thinking?
- Do all employees want to be creative and implement new ideas?
- Does the company value the input and feedback of employees?
- Are there regular discussions around new ideas?
- Are all opinions taken into account and considered?
- Are there processes for informal communication about ideas with employees?
- Are there innovation networks with others outside the company?
- Can employees devote some time to new ideas?
- Is innovation part of the performance requirement?
- Are there fun and enjoyable activities for employees regarding innovation?

Context of Topic

Entrepreneurship involves any kind of business activity that involves innovation, creativity and risk taking. This means it can happen in any market environment and at any time. There is no formula as to how entrepreneurship occurs, so practitioners, policy makers and researchers need to keep an open mind as to when it occurs in society (Nurlatifah et al., 2022). Many organisations are family owned and managed. This influences how innovation develops within an organisation. Some organisations were initially family owned but have since diversified their management structure. Innovation in a family business normally is managed well although there can be some tension amongst organisational members as to the direction it takes. The ability to create and maintain innovation and encourage the exploitation of new knowledge is a key factor in an organisation's success.

Innovation is a hot topic of discussion today due to the way it impacts an organisation's competitiveness. With digitalisation and the COVID-19 crisis, organisations realise that to survive requires tapping into innovative ideas. This will help them reach their goals but also encourage the process of organisational learning. Agile processes that utilise knowledge are needed to design new products and services. Shorter product lifecycles and increased emphasis on quality are leading organisations to mobilise their knowledge resources.

The intelligent use of knowledge recognises current and future needs. Knowledge can be of a tacit or explicit format depending on how it is utilised. Tacit knowledge is experiential in that it is obtained through experience. This means it takes time to accumulate and can be hard to transfer to other organisations. Explicit knowledge is codified so it is in a written format and more easily shared. Knowledge is context specific, so it relates to interactions that continually occur in society. Knowledge often resides in a person because of their experience. This means it cannot be detached from

a person and is likely hard to fully explain. Thus, some forms of knowledge involve processing information that is based on the environmental context. Its existence can be unknown until a solution is required. This means knowledge can be hard to reproduce and disseminate.

Group Activity

In groups of 4–5 students think of an entrepreneurial strategy for businesses affected by the COVID-19 pandemic to recover. What kind of innovations would you suggest they focus on and why?

Implementation Process

Knowledge that is required for strategic innovation can be measured in terms of intellectual capital but this is a difficult task. There is no right way to measure knowledge, but it can be estimated. To utilise knowledge it needs to be created and shared (Kavanagh et al., 2021). This can help increase the efficiency of an organisation and how it responds to market change. Knowledge needs to be protected as it is an asset. This means updating it as new information emerges in the economy. Some organisations can create obstacles to the sharing of knowledge. This is due to inefficient processes being implemented in an organisation that store then disseminate information.

To enhance knowledge flows, there needs to be proper management functions regarding information usage. This will encourage incentives around the transfer of knowledge to others. To promote knowledge sharing organisations need to enable conditions such as a reward system designed to share information. This will help to guide principles around what knowledge is and how it can be obtained. To do this, organisations need to incorporate ideas around knowledge management in their mission and values statement. This will help in developing structures for the transfer of knowledge.

Key Aspects in Success

Every innovator asks themselves: ‘How can I develop an innovation that provides a benefit that is not current evident in the marketplace?’. Given this competitive economic and political factors that exist in the international marketplace, this can be hard to do. As a result, knowledge is the most important tool that innovators possess that can help them succeed. Innovators are creative people who develop and launch new ideas. They are highly dedicated and like to solve problems. This means

they are relentless in their quest for creative ideas. Innovation is often associated with well-known technology products such as the microwave, washing machine and mobile phone that have made a difference to people's lives. Regions play a role in fostering an innovative business climate that facilitates new business creation. Expanded access to information technology and communications has empowered organisations to be innovative. Artificial intelligence is a way to automate human decision making. This makes it easier to decide what to do, how to do it and when it should be done. Machines are used for artificial intelligence as they provide a way to make decisions. They do this by recognising patterns in data and then making predictions.

Many products and services we use today were not in existence a decade ago. This includes many digital services such as live streaming and face timing. In order to progress society and to contribute to economic development innovation is needed. Innovation can lead to an increased quality of life in terms of enabling people to spend less time doing routine tasks (Mendes et al., 2021). In the past tasks like washing the dishes or clothes was done by hand and took a lot of time and energy. The use of machines now to do these tasks has reduced the need for humans to physically do certain tasks and leads to an increase in leisure time.

Innovations in social media have led to more information being available online. This has created an information revolution as real time information is shared. Innovation provides the basis for a prosperous society but do not miraculously happen as they require strong management (Ratten, 2020a). This is due to innovation being often risky and unpredictable. Companies must innovate in order to secure their growth and competitiveness.

Innovation is an interesting concept but normally refers to the successful introduction of an idea into the marketplace (Ratten, 2020b). This means an idea needs to be applied or implemented in the marketplace. It is not enough just to come up with an idea as the idea must progress into a commercial product or process. There is some degree of subjectivity around innovation as it involves an individual determining whether something is actually new. This means an innovation does not necessarily have to be original, but it needs to be a new idea in the specific context in which it is being used.

Advantages and Disadvantages

It can be useful to consider innovation in an entrepreneurial way. This is due to the amount of risk taking embedded in new product and service innovations. Not all innovations are entrepreneurial but many of the emerging technological inventions are entrepreneurial. This is due to the way they transform the marketplace and bring in new ideas. Table 5.1 states the main advantages and disadvantages of entrepreneurial innovation.

Table 5.1 Advantages and disadvantages of innovation strategy

Advantages	Disadvantages
1. It enables planning to take place about the innovation	1. It can mean too much emphasis is placed on one key product or service
2. It allows a focus on the key competitive advantages	2. It can mean opportunities are overlooked
3. It enables resources to be used in an efficient manner	3. There might be too many expectations that cannot be fulfilled from the focus on strategy
4. It highlights the strength of focusing on key product or service attributes	4. Can be hard to coordinate different parts of an organisation
5. It enables risk taking and forecasting to be taken into consideration	5. Means that people in the organisation might overlook other potential strategic directions

The Role of Innovation Managers

More organisations have innovation managers as a way to track the progress of new ideas. An innovation manager is a person who oversees the whole process of coming up with an idea to making it a market reality. They are responsible for managing ideas and play a support role in a company. They coordinate the progression of an innovative idea by providing strategic direction. This helps others to plan for innovation and enables ideas to be advanced in the marketplace. Often this means linking different people together in order to acquire specific skillsets. This ensures the right people are working on the innovation and ensures the optimal usage of resources. Please take the innovation strategy quiz in Table 5.2 to understand whether you are an innovation manager.

Now is the time for a quick quiz to understand whether you think innovation is important in an organisation. In the quiz it asks specific questions designed to get you thinking about your innovation experiences. You can choose yes, no or unsure. The unsure box is in case you do not know or have had no experience dealing with this kind of innovation.

After answering this quiz, add up the number of times you answered yes, no and unsure. How did you go overall? Did the quiz make you think about how innovation

Table 5.2 Innovation strategy quiz

Assumption	Yes	No	Unsure
The intended strategy of an organisation must not change			
The products or services made by an organisation need to be continually updated			
Innovation is part of an organisation’s competitive strategy			
The role of management is to monitor innovation practices			
Innovation does not occur by chance as any innovation needs to be managed			
Innovative techniques are required in all management processes			

is managed in an organisation? If you answered mostly yes, then you are aware of the importance of innovation in an organisation. If you answered mostly no, then your view of innovation is that it is not important. If you answered a mixture of yes, no and unsure then you have different views about innovation.

Classroom Activity

In groups of 4–5 people draw a picture of entrepreneurial innovation. This could be a product or technology that is new to the market. In your picture include the specific features or attributes that make it entrepreneurial as well as innovative.

Organisation Example: Barnes and Noble Nook

As the internet in the 2000's grew in acceptability, more consumers were looking at devices that used technology innovation. Amazon an e-commerce retailer developed the Kindle in 2007. It was an e-reader in which people could read material on an electronic devices. It enabled people to download books, magazines and other written material and read it on a device. It tried to mimic actual paper but in an electronic format. The name of the electronic device was called the 'Kindle' and was a metaphor for the excitement when someone starts something normally associated with starting a fire. Thus, the word was originally used to describe the process of lighting a fire but was extended to describe the curiosity that is associated with reading something. The Kindle has evolved with touch screen and high resolution screens being introduced. It is also different to other technology devices as it is just for reading material in an electronic format. Thus, unlike mobile phones or computers that can be used to type, read and listen to things, initially the Kindle was just for reading material. Prior to introducing the Kindle, Amazon focused on its electronic marketplace in terms of being a portal to sell and buy things. This meant the Kindle was amongst the first product innovations it developed. The Kindle tied in well with Amazon's general philosophy of being an e-commerce innovator.

Due to the competition Barnes & Noble was receiving from Amazon it also introduced a e-reader called the Nook in 2009. As Barnes & Noble was already a well known book store, it was a logical step to invest in a e-book reader. Despite the advantages of linking a well known book store to a e-book reader the Nook was not as successful as the Kindle. The name 'Nook' was a metaphor for when a person reads in a corner. Apple launched the iPad in 2010 which was an e-reader but also had other functions. In 2011 Amazon launched the Kindle Fire which was a multi-purpose device to read material, surf the web, watch videos and listen to music. Barnes & Noble's Nook did

not have a multi-purpose and only small changes were made to the product. This meant it did not keep up to date with the rapid technology advances that other companies were making with their devices. Some questions to consider:

1. Why did Barnes & Noble not invest in more research and development regarding e-book readers?
2. What is the role of product naming in a product's success?
3. What changes would you have made to the Nook in order for it to be more successful in the marketplace?

In Class Debate Question

In class divide the class into groups who agree or disagree with the following statement. As part of the debate, research why you agree or disagree and provide reasons for this choice. You should also give detailed organisational examples that support your reasoning.

- Innovation to really make a difference to society should be entrepreneurial.

Strategy and Innovation

Strategy is the basic idea about why an organisation exists in the marketplace. This involves how they allocate resources and the reasons for adjustments. Therefore, strategy is a course of action and is needed by organisations in order to remain competitive. A strategy can take time to progress as it involves making deliberate actions related to its market purpose. This means an organisation will pursue specific goals in order to obtain certain results. Thereby focusing on what should be done now in order to target specific goals.

Strategy is an intended course of action that is based on market guidelines (Ramadani et al., 2019). Organisations implement strategies so they have a plan to deal with a problem. This helps them create a unique market position that enables them to outcompete rivals. Strategy involves performing activities in a special way that emphasise trade-offs between different courses of action. This means choosing to perform activities based on availability of resources. Thus, it is a conscious and deliberate action that individuals put into action.

The study of innovation can be a daunting and confusing task (Ratten, 2021). This is due to so many conceptualisations existing about innovation and differing views about its importance. Despite more than a decade of interest in innovation, the concept still is not fully understood. The concept of innovation has many different definitions because of the various interpretations that exist. This means often the words creativity and entrepreneurship are used to express the idea of innovation

(Ratten, 2022). In addition, many people define innovation in a narrow way by focusing on positive change although it can occur in different ways. There has been an explosion in interest in specific types of innovation such as social, sport and technological (Ratten & Dickson, 2020). This is due to the diverse way innovation can be practised in society.

Collective identity is a way to understand how groups of individuals or entities shape innovation practices. Kavanagh et al. (2021: 2) define collective identity as “the set of characteristics seen as intrinsic to, and constitutive of, a group of actors who share a specific purpose and similar outputs”. Increasingly groups are engaging in collective action as a way to solve problems. This occurs when they have similar interests and goals in terms of wanting to achieve certain outcomes. Membership of a collective is normally determined based on shared beliefs. This means all the members think in the same way about a specific issue. By being part of a collective it can help bring legitimacy to a cause. This enables others to understand the importance of an issue and the number of people who think in the same way (Ratten & Khaksar, 2021). A shared collective identity is useful when there are new or threatening changes in the environment. Having a collective identity enables people to respond to change and recognises its urgency. A collective identity needs to have some kind of belief in terms of enduring features. This means the issue stressed by the collective is distinctive and is the reason why people want to be part of the group.

Within a collective there are stakeholders who are invested in specific outcomes of the collaboration. Stakeholders are defined as “any group or individual who can affect or be affected by the achievements of the organisation’s objectives” (Freeman, 1984: 46). In order to gain acceptance in the marketplace, new innovations might need to look like existing products. This helps people to understand the usefulness of an innovation based on products they are already familiar with using. This occurred with Thomas Edison designing electric lights to look like gas lighting (Hargadon & Douglas, 2001). This enabled the innovation to gain quick acceptance in the marketplace despite its different characteristics. Often people will be afraid of change so making innovations in a way that is less disruptive will help with adoption rates.

Application Activities

1. Examine a newspaper for examples of entrepreneurial innovations. Try to find articles that discuss why the innovation is new and creative.
2. Interview a manager and find out what they consider to be entrepreneurial innovation. Ask them why they consider different forms of innovation entrepreneurial.
3. Pick a food product that you consume on a frequent basis- e.g. coffee, breakfast cereal or snack. Think about some entrepreneurial ideas for future usage of the product- e.g. new ingredients, different marketing campaigns, change in product size.

Internet Exercise

Pick a product innovation that you consider to be innovative. Research online what new trends might shape the development of this innovation.

Lessons Learnt

- Entrepreneurial forms of innovation are needed in order to take into account technological change.
- Entrepreneurial innovation involves consideration of futuristic change.
- Innovation can be conducted in a proactive way in order to implement market changes.

Discussion Questions

1. How does entrepreneurial innovation differ to other forms of innovation?
2. Why should innovation take an entrepreneurial form?
3. Should organisations implement more risk taking innovation activity?
4. How do different organisations compare regarding their level of entrepreneurial innovation?
5. How proactive should organisations be regarding innovation developments?

Learning Outcomes

- Entrepreneurial innovation is a type of innovation that encourages creativity and risk taking activities.
- Organisations can incorporate futuristic thinking in their innovation activities.
- Entrepreneurs are needed to create business ventures for organisations that incorporate innovative thinking.
- Entrepreneurial innovation differs to other types of innovation by focusing on proactive business ideas.
- Organisations need to incorporate entrepreneurial ideas into innovation practices in order to obtain a competitive advantage in the marketplace.

Conclusion

This chapter has discussed entrepreneurial innovation, which is a useful way to consider newer forms of innovation. As innovation by definition will change based on environmental contexts, it is important to utilise entrepreneurial forms of innovation for an organisation's success. This means emphasising the need to think creatively but also for organisations to implement processes that facilitate entrepreneurial innovation.

Multiple Choice Questions

1. Tacit knowledge can be best defined as:
 - a. experiential in that it is obtained through experience
 - b. codified in a written format
 - c. none of the above
 - d. all of the above
2. Explicit knowledge can be best described as:
 - a. experiential information
 - b. codified in that it is in a written format
 - c. verbal information
 - d. all of the above
3. An innovation manager can be defined as:
 - a. a commercial manager
 - b. interested in finance
 - c. an accounts person
 - d. a person who oversees the whole process of coming up with an idea to making it a market reality
4. Strategy can be best defined as
 - a. a course of action and is needed to remain competitive
 - b. an immediate reaction to events
 - c. a form of knowledge
 - d. none of the above
5. Kavanah et al. (2020) defines collective identity as
 - a. groups engaged in common courses of action
 - b. individuals with similar goals

- c. groups with the same interests
- d. the set of characteristics seen as intrinsic to, and constitutive of, a group of actors who share a specific purpose and similar outputs

Answers: 1. (a), 2. (b), 3. (d), 4. (a), 5. (d).

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Chapter 6

Social Marketing Innovation



Learning Objectives

- To understand the role of social media and marketing in innovation.
- To analyse how social marketing can be innovative.
- To distinguish between social media and other forms of marketing communications.
- To highlight how organisations can utilise the sustainable development goals.
- To understand whether there are political and cultural considerations in sustainable development goal usage.

Introduction

This chapter focuses on the role of innovation in social media. This means explaining the ways social innovations can be utilised in order to increase the efficiency of marketing communications (Albert, 2019). The different types of social media are explained with an emphasis on new and emerging forms of social media. Thereby emphasising the natural progression of social innovations based on technological change (Jones et al., 2018).

Marketing is all around us and is a constant presence in the lives of people around the world. There is a great deal of variety in marketing as it can be indirect or direct. Direct forms of marketing are obvious as they take the form of advertisements or campaigns in which the sponsoring entity is easily identified. Indirect marketing can be harder to identify particularly newer forms that relate to social media. For this reason, it is important to have an open mind as to what social marketing is and how it is defined when used in an innovation environment (Patria et al., 2019).

In a broad sense, marketing is any form of communication that has an impact on behaviour (Ratten, 2021). This means in the traditional sense it involves newspaper

advertisements highlighting the virtues of a certain product. More recently Instagram advertisements or product placements have become more popular. Moreover, due to the information obtained from technology devices it is now easier to target certain types of consumers based on socio-demographic targets. Thus, marketers can now obtain more personalised and detailed information about consumers about their buying habits, which enables them to design better marketing campaigns.

Marketing is a necessary activity as it keeps people aware of a company's product. Often companies cease marketing campaigns only to find their brand recognition and sales in the marketplace decrease. There can be some scepticism about the role of marketing in society as it is assumed it is not necessary (Ratten, 2022a). This view normally comes from people not involved in the marketing process such as scientists who may prefer to rely on the products features (Ratten, 2022b). However, often people need to be told and kept informed about the benefits of using a product. This means the view of marketing success is based on the increased value of sales in the marketplace (Ratten & Usmanij, 2020). A superior product can sell itself based on word of mouth but it can achieve better results when marketed in the right way. This means by utilising certain people as endorsers it can help people to view the product in a better way. The goal of most marketing campaigns is to influence others about a product. This can be done in a variety of ways.

Case Study: Crystal Pepsi

Crystal Pepsi was a clear cola flavoured soft drink that was introduced into the marketplace in 1992. It was innovative as it was a clear colour but had a cola taste. The name of the product being called crystal also linked in with the clear colour of the liquid. It was marketed as a new kind of drink that was a solution to the normal Pepsi drinks. Initially there was a positive response to the product, but it did not sell as well as other Pepsi products so in 1994 was withdrawn from the marketplace. Coca-Cola had a similar product called Tab Clear that also did not continue production despite the initial interest in the product. In 2022 Pepsi brought back the drink to celebrate its 30 year anniversary as part of its marketing campaign. Consumers can win the product by using the hashtag #ShowUsYour90s on twitter in order to encourage social media discussion about the product. As part of the hashtag campaign consumers need to post a picture of themselves from the 1990's as a form of nostalgic marketing. The marketing campaign links in with more consumer interest in 1990's products. Other beverage campaigns like Coca-Cola have also done the same kind of marketing campaign. Some discussion questions to consider:

1. Why did Crystal Pepsi fail in the marketplace?
2. Why is nostalgic marketing used in social media campaigns?

Context of Topic

It is really interesting to think what will happen in the future regarding innovation. Have a think about products and services you use and how they have changed over the past decade and then think about possible future changes. There is much talk about artificial intelligence and innovation so it will be interesting to think about future human–computer interaction. The word innovation is popular in the business world but there are some inconsistencies regarding its usage. Therefore, think about how the advertisements you read and watch influence your behaviour.

Group Activity

In groups of 4–5 students choose a social media campaign that utilises a hashtag and discuss why it was popular. In the group discuss why social media might be more beneficial to organisations than other forms of marketing activities.

Implementation Process

It is commonly assumed in an organisation that people will share knowledge. This is due to knowledge being a key strategic asset and needed for innovation. Knowledge can improve the effectiveness of a company and enable it to perform better in the marketplace. Sometimes people involved with organisations such as employees and stakeholders do not share knowledge. This means they hide knowledge in a deliberate way whilst consciously being aware of its importance. Connelly et al. (2012: 65) in a widely accepted definition of knowledge hiding describes it as “an intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person”. This description highlights how people deliberately do not let others know what information they have for a variety of reasons. Normally it is considered as unethical and selfish activity as it prevents others from knowing relevant information. This means it undermines organisational performance due to not all available information being known.

Knowledge hiding is viewed as a counterproductive behaviour as it prevents the sharing of mutually beneficial information. This means if one person hides knowledge it has a flow on effect to other people in an organisation. This leads to destructive behaviour and a culture that limits innovation. Anand, Offergelt and Anand (2021) suggest that knowledge hiding behaviours include playing dumb, rationalising hiding and evasive hiding. Playing dumb means that the person pretends that they do not have any relevant information. This can be done by staying silent and not offering any suggestions as to what is currently occurring. By pretending to not know what information is being requested an individual can conceal what they know. This means

they are not helping others obtain the information they require. Rationalised hiding means believing that it is not in the best interest of another person to have the knowledge. This may be due to a conflict of interest between the knowledge holder and the receiver. Alternatively, it might be done for strategic reasons in order to put the knowledge holder in a better market position. Evasive hiding involves giving incomplete information in order to conceal what a person knows. This can be considered a game as the knowledge holder plays different roles in terms of withholding information. They can also give wrong information with the objective of making another person confused. Knowledge hiding must involve some kind of knowledge that is requested from another person. This means the person has the knowledge but chooses not to share it with others.

Key Aspects in Success

For any type of marketing to be successful there needs to be a change in consumer patterns regarding the product's usage. This can mean people buying more of the product in terms of an increase in frequency or people switching brands. Therefore, at the heart of any marketing campaign is the outcome analysis. This means whilst a marketing program can be popular it also needs to influence purchasing decisions.

Classroom Activity

In groups of 4–5 people draw a picture of a social media innovation. This could include a new app or a website that has a social media feature.

Advantages and Disadvantages

Marketing is an essential activity that organisations need to do in order to stay competitive. They can do this through innovative practices that utilise emerging social media technology. In addition, the sustainable development goals brings in a new perspective of how organisations can be both social and sustainable in the marketplace. Table 6.1 states the main advantages and disadvantages of social and sustainable forms of marketing.

Table 6.1 Advantages and disadvantages of marketing

Advantages	Disadvantages
1. Focuses on increasing marketshare	1. Requires finance and spending
2. Highlights the need to do a strategic analysis of products and services	2. Can take time to develop the right marketing strategy
3. Enables more recognition of the organisation’s product portfolio	3. There may be negative repercussions of the marketing campaign
4. Highlights the best features of a product	4. Requires the involvement of others in the organisation’s strategy
5. Enables the organisation to enter new markets	5. May require different forms of marketing including print and social media

Value Chain Analysis

Value chain analysis is a way of analysing the whole process of innovation in terms of how it influences value creation. This means it is a systemic approach to understanding ways value is appropriated within an organisation. This includes primary activities that an organisation is directly engaged in as well as secondary or support activities. Porter (2000) developed the value chain as a way to analyse strategy in an organisation. This means it is a more complicated approach to environmental analysis compared to other approaches. Primary activities in the value chain include inbound logistics, operations, marketing and sales, outbound logistics and customer services (Porter, 2000).

Inbound logistics involves the storing of materials that are used to make things. It includes the receipt of components that are required inputs of other goods. Operations involves the actual making of a product in terms of acquiring resources, assembling the materials to packaging the final item. It also involves the quality control process that ensures things are done in the right way. Marketing and sales involves promotion activities aimed at generating interest in a product. This means focusing on communication around what a product does and why it should be bought by consumers. Outbound logistics refers to the delivery of a product to a consumer. This means how it gets from the factor or place of production to the person or entity buying the product. Therefore, it includes the transportation and processing of the order. Customer service involves the communication between the buyer and seller regarding the use of a product. This can include after sales service in terms of managing any maintenance or repair issues.

The secondary activities in the value chain include firm infrastructure, human resource management, procurement and technology development (Porter, 2000). Firm infrastructure refers to the resources that an organisation has that can help it produce products or conduct services. This can mean the buildings and other machinery needed to produce certain outputs. Human resource management refers to the human capital of an organisation. This means the experience and expertise of people involved in the organisation. Procurement refers to how an organisation sources its raw materials. Technology development involves focusing on the use of information and communication mechanisms to help the organisation.

Organisation Example: Cheetos Lipbalm

Cheetos is a well-known chip maker that produces cheese flavoured chips. In 2005 it produced a lip balm that was Cheeto flavoured. The product had the same branding and design as the chips but was a lip balm. It was not successful in the marketplace and did not translate to a profitable product. Some discussion questions to consider:

1. Why did Cheetos want to replicate the chip taste in a lip balm?
2. Why was Cheetos lip balm not successful in the marketplace?
3. What other products would have been a better fit for the Cheetos brand?

Sustainable Development Goals

The Sustainable Development Goals were developed by the United Nations to achieve a better sustainable global world. They were established in 2015 and designed to be achieved by 2030. Whether these goals will be achieved is unknown, but it is hoped that by prioritising these issues more resources will be devoted to achieving them. Each of the 17 goals will now be discussed in terms of how they are related to innovation.

Goal 1: End poverty in all its forms everywhere

In the world there is a large disparity between rich and poor. This means normally in developed economies people will have access to social security but in developing economies this government support is often not available or if it is at low rates. This means there is a large amount of inequality between people who can and cannot afford basic services like housing. In addition, the price of food and other essential items can vary leading to some people living on low incomes. Therefore, social innovation can help alleviate poverty by implementing services for those that are less fortunate.

Goal 2: Zero hunger

People around the world are struggling to find affordable food. In some parts of the world certain items such as clean drinking water and vegetables are scarce, so they need to be imported from other countries. In addition, due to increased urbanisation rates there has been decreased amounts of land available for agricultural production. This means innovative food production methods are required in order to grow fruit and vegetables in new ways. This is being done through vertical instead of horizontal farming methods and the use of new farming methods.

Goal 3: Good health and well-being

As people live longer there is more emphasis on quality of life. This means assessing the time spent on work, leisure and other activities. Good health is often associated with living longer but it can also involve having lower levels of disease. During the COVID-19 pandemic, health issues have been a priority due to the unknown long-term effects of certain diseases. Social marketing campaigns have increased that target issues such as smoking and sedentary behaviour. This has resulted in innovative health programs that encourage exercise at all stages of life. Well-being is related to mental and physical health. This means health innovation related to mental health issues such as loneliness and depression have increased. In addition, there has been an emphasis in health policy initiatives to encourage more people to exercise outdoors as a way of increasing their physical health. Related to this are new tests that can be administered via digital apps to track a person's health. Wearable technology has become popular as a way of tracking a person's health.

Goal 4: Quality education

Education is often related to a country's economic success. For this reason, there is more emphasis in policy discussions regarding access to education. In the past this tended to focus on literacy rates in terms of reading and writing but now it also refers to financial literacy. There is now a higher percentage of people who are going onto higher education. This means the emphasis is on quality education but there has also been the introduction of new subjects such as entrepreneurship and innovation that were previously not taught at universities and other higher education institutions. Thus, the importance of certain topics studied has changed which is related to new theories and practices becoming evident in the global economy.

The objective of this goal is to ensure more equitable access to education. In the past, education particularly at a university level was user-paid that meant people from lower incomes could not afford to go. The introduction of loan and scholarship systems has changed this and enabled more people to pursue education.

Goal 5: Achieve gender equality

This goal focuses on gender equality. The issue of female and male participation in economic and social activity has been a controversial topic. This is due to a debate existing on whether gender quotas should be used and if so how they should be implemented. This means there is an emphasis on equality but at the same time merit based participation.

More countries and companies are focusing on how to empower both genders, in order to achieve more fairness in society. Typically this has been done by highlighting the lower participation rates of women and girls in social activity. It might include the percentage of females in higher education or in certain professional trades. Traditionally engineering and science course have had a higher number of male students but this seems to be changing. Therefore, stereotypes about what professions are suitable for male and females has been changing. In addition, there is an emphasis on gender

neutral terms in language. This means there is changing societal perceptions about the appropriate terms to use for both genders and whether gender-neutral language should be used.

Goal 6: Clean water and sanitation

This goal focuses on providing clean water, which is essential for a healthy society. Some sources of water around the world have been polluted and this has caused health issues in the population. This means there is an emphasis on filtering and testing water in order to ensure it is safe to drink. Sanitation refers to how waste is managed. In many countries there are sophisticated waste management systems in existence but in some developing countries there are no effective waste management systems. This means new innovative and cheap ways to deal with waste are needed. In some countries there are recycling initiatives and regulations that limit the use of plastic. This is helping to decrease the amount of waste found in oceans, rivers and public parks.

Goal 7: Affordable and clean energy

This goal focuses on how societies can produce both affordable and clean energy. There is an affordability crisis regarding energy as prices have increased. This has meant alternative energy sources such as solar and wind power have become more important. There are now incentives and tax benefits for households to install solar panels. This makes them more self-sufficient regarding energy usage. In addition, there are more wind turbine farms being established as a reliable energy source. There is greater emphasis now on sustainable sources of energy that rely less on fossil fuels. This has led to an increased emphasis on smart cars that use electricity instead of petrol. Moreover, there are policies regarding global warming that have spurred innovations in clean energy.

Goal 8: Decent work and economic growth

This goal relates to the balance people have between their work and home life. Decent work refers to employment that also satisfies applicable work conditions. This means ensuring there is appropriate health and safety regulations in place. As part of this initiative there is an emphasis on productive work conditions that combine work activities with training initiatives. This helps workers to obtain the necessary skills and to keep up to date with societal changes. There is more emphasis on global equity regarding hours worked. This means ensuring people have appropriate rest breaks and holiday periods.

Goal 9: Industry, innovation and infrastructure

This goal focuses on the role industry plays in economic development. This means value added production activities have priority in most countries economic plan. Industry can refer to different types of production methods from manufacturing to knowledge intensive. The innovation component of this goal means an emphasis on

creativity is important in production methods. Therefore, an economy needs to grow but it should do this by concentrating on innovative endeavours. The infrastructure part of this goal means that there needs to be the right transportation methods, ports, roads, libraries, schools and other amenities in order to make sure the society is well catered for. Increasingly important in a society is access to the internet particularly at high speeds. Many areas around the world do not have access to the internet and this is limiting growth potential. There is a lot of information found on the internet so people without it can find it hard to obtain the right kinds of knowledge. Many new businesses are digital based so access to the internet is needed. Increasing amounts of commerce is also conducted on the internet so it is now considered an essential service.

Goal 10: Reduced inequalities

Inequality between rich and poor has grown in the last decade. This inequality impacts other areas of society such as life expectancy and quality of life. Social policies in areas such as Europe have decreased the level of income inequality. This has meant more people have access to essential services and better work opportunities. In other areas of the world due to cultural and historic conditions the level of income inequality is still high. These societies may encourage the inequality due to political factors. Therefore, there is much difference in opinion about that the role of inequality is in a countries economic and social progress.

Goal 11: Sustainable cities and communities

Sustainability is a social priority of most governments. This is due to the need to preserve resources for future generations. As a consequence, there is an emphasis in city planning and management on providing sustainable services. This has influenced how buildings are designed and what kind of amenities are prioritised. The use of green space in terms of parklands has been prioritised by city planners. In addition, the use of recycling and other pollution reduction techniques has been integrated into city plans.

The focus in sustainability initiatives in cities has been on environmental initiatives but there is also an emphasis on financial and economic usage. This relates to equity and equality being important to city development. As a result, the term smart cities has gained popularity as a way to describe cities that are innovative and entrepreneurial. Due to the impact of COVID-19, cities have had to rethink how and why they offer particularly services. This is due to health mandates changing the way people live in society.

Communities are trying to be more sustainable in terms of offering new kinds of services. This can include community gardens in which members of the community share space and look after the trees in specific areas. It can also be in terms of planting new trees and designing amenities in a better way. There has been an emphasis on reusing products so second hand or library services are becoming popular.

Goal 12: Responsible consumption and production

This goal focuses on how society can be more responsible regarding consumption and production behaviour. In the past, consumption patterns tended to over emphasise the buying of new goods. This meant there was a lot of waste in society. In addition, the use of second-hand goods was not considered whereas there is now much more emphasis on the circular economy in terms of reusing material. Responsible production focuses on how materials are made to ensure it is done in a sustainable way.

Goal 13: Climate action

This goal refers to action regarding climate change. Gradually over the past decade there has been an increase in global warming, which is impacting waterways and environments around the world. Due to rising sea levels some places are being eroded and it is causing people to move to other places. Climate change is being influenced by deforestation rates. This is meaning less shade for animal habitats and an erosion in parkland. Due to the increased urbanisation rates more concrete is being used and this is heating up areas. In addition, storm water is flowing into drains instead of being used on land to keep it fertile.

Goal 14: Life below water

As a large percentage of earth's surface is covered by the ocean, it is becoming important to look after marine life. Due to overfishing happening around the world many marine species are at risk of extinction. This is altering the marine ecosystem and having flow on effects to other parts of society. In addition, more pollution and storm water is going into rivers and estuaries. This is changing the quality of the water and making it less habitable. There has been an emphasis on trying to reduce plastic waste such as bags and straws that flow into the ocean. As a consequence, paper straws and bags are being used as they are biodegradable. However, other goods such as face masks are still being used and are clogging up waterways.

The ocean is a source of energy in terms of wave and tides so it is being harnessed as a form of renewable energy. Offshore wind turbines are being used as a power source. Marine transportation is needed to ship goods around the world but accidental losses can influence the marine environment. This has meant an emphasis on renewable power such as wind assisted energy to be used.

Goal 15: Life on land

It is essential to look after life on land including animal habitats and forests. Deforestation has meant a loss in species and tree life particularly in terms of medicinal herbs. In developing countries there is still much rainforest existing however it needs to be protected. This has meant innovative policies regarding the creation of national parks and wetlands. The Paris Climate Agreement is an international treaty on climate change that is used as a way to encourage the protection of forests.

Goal 16: Peace, justice and strong institutions

This goal focuses on trying to prevent conflict between countries by promoting peace. To do so can be difficult due to the politics involved and there is still much disagreement around land territories. Justice refers to fairness in terms of what kind of rules and regulations are applied. There can be much variation in rules depending on the geographic location and historic conditions. This means strong institutions are needed in order to monitor the behaviour of people in society.

Goal 17: Partnerships for the goals

This goal focuses on how people can collaborate and cooperate regarding the sustainable development goals. These partnerships can occur in different ways from local to global initiatives. It is important that there are partnerships so progress on the goals can be monitored to see how they evolve over time.

In Class Debate Question

In class divide the class into groups who agree or disagree with the following statement. As part of the debate, research why you agree or disagree and provide reasons for this choice. You should also give detailed organisational examples that support your reasoning.

- Social media innovation is the best kind of marketing communications.

Internet Exercise

Choose a social media organisation. Research online what kind of innovative promotions they are engaged in.

Lessons Learnt

- Social media is transforming the way organisations market their products.
- New technological innovations are influencing how social media is used by organisations.
- Social media enables real time information to be disseminated.

Discussion Questions

1. What is the role of social media in an organisation's success?
2. Do you think all organisations should use social media?
3. How often do you think social media needs to be utilised by organisations?
4. What kinds of social media are the most effective forms of marketing communications?
5. How do you think social media will evolve in the future?

Learning Outcomes

- Social media is playing an increasingly important role in organisational innovation.
- Social media can be innovative when it incorporates some kind of new and creative idea.
- Social media is more interactive than other types of marketing communication.
- Organisations can utilise social media as a way of staying up to date with current events and to provide timely information.
- There can be political issues and cultural nuances that need to be considered in any form of social media innovation.

Conclusion

This chapter has discussed the role of social media innovation in society. In the past most forms of marketing did not have access to the data analytics that are available today. Thus, the chapter has discussed how real time information and geographic tracking can help marketing communications be more targeted. This enables more direct forms of interaction to emerge in the business marketplace.

Multiple Choice Questions

1. Any form of communication that has an impact on behaviour can be best referred to as:
 - a. marketing
 - b. data analytics
 - c. management
 - d. accounting
2. What was Coca Cola's product called that was similar to Crystal Pepsi?

- a. Solo
 - b. Tab clear
 - c. Fanta
 - d. Coca-Cola light
3. What concept best defines when an individual intentionally conceals knowledge?
 - a. knowledge management
 - b. knowledge dissemination
 - c. knowledge sharing
 - d. knowledge hiding
4. Which of the following are primary activities in the value chain?
 - a. inbound logistics
 - b. marketing
 - c. customer services
 - d. all of the above
5. How many sustainable development goals are there?
 - a. 14
 - b. 1
 - c. 17
 - d. 2

Answers: 1. (a), 2. (b), 3. (d), 4. (d), 5. (d).

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Chapter 7

Green and Eco-Innovation



Learning Objectives

- To understand the role of green and eco-innovation in an organisation.
- To analyse how green innovation can be developed by an organisation.
- To assess the relationship between senior leaders of an organisation and the rate of green forms of innovation.
- To highlight how more green innovation needs to be done by global organisations.
- To understand the way green innovation influences other types of innovation.

Introduction

Green and eco-innovation are becoming more important to organisations that need to implement sustainable change. As a result, organisations are emphasising the way innovation can incorporate environmental goals at the same time achieve financial objectives. This chapter will discuss the role green and eco-innovation play in an organisation's overall strategy. This means emphasising the importance of considering the environment in the way innovation is conducted in society.

Innovation is driven by demand as it represents a way for business entities to fulfill their quest for market dominance (Audretsch & Link, 2018). Brooker and Joppe (2014: 500) state that the word innovation is “derived from the Latin noun *innovates* meaning renewed or changed”. This means that there is a long history of how the word innovation has been used in society. The Latin meaning of renewal or change is still embedded in current definitions although now there is more emphasis on creativity. Innovation is a buzzword and used to explain many different things (Bhimani et al., 2019). Its popularity comes from a need for organisations to create new things in order to stay competitive.

Innovations do not need to be completely new as they can include small changes that are different to what currently exists (Day & Shea, 2020). This means that

innovation is often discussed in terms of incremental or radical change. Incremental innovation involves small adjustments that are often hard to explain. This makes it difficult for others to replicate due to the minor changes it involves. Incremental innovation seeks to improve performance and boost efficiency and typically occurs within an organisations existing system and are targeted forms of change (D'Souza et al., 2021). In order to assess incremental innovation, it can be helpful to ask the following questions: What can be improved? What do customers want? And how can this be achieved? The answer to these questions can lead to organisations providing better services and increasing their customer service ratings.

Radical innovation involves some kind of surprise. This means it offers a new way to conduct business and challenges current conventions. Innovation needs to occur in the right way and at the appropriate time (Ferreira et al., 2018). This can be a hard thing to do as sometimes luck plays a part in the success of an innovation. In order to assess radical innovation, it can be useful to ask the following questions: How much has the change influenced the performance or an organisation? To what extent have current conditions been transformed by the change? And has this resulted in significant efficiency gains for the organisation?

Sustainable innovation involves thinking about the production opportunities at present and in the future. Oltra and Saint Jean (2009: 567) suggest that environmental innovation involves “innovation that consists of new modified processes, practices, systems and products which benefit the environment and so contribute to environmental sustainability”. This means unlike other innovation practices environmental innovation focuses on value added activity that can help society (Ferreira et al., 2020). This means considering economic and financial objectives but emphasising social impact. Thereby making intentional changes to an organisations practices in order to realise environmental value. This can occur at the same time economic returns are produced from the business activity. This makes it a philosophy in terms of how an organisation practices innovation.

Innovation is recognised as a key skill and competence in modern organisations (Fukuda, 2020). Chen et al., (2006: 333) suggest that green innovation involves “hardware and software innovation that is related to green products or processes, including the innovation in technologies that are involved in energy-saving, pollution-prevention, waste recycling, green product designs, or corporate environmental management”. Many organisations are embedding innovation within all of their management practices. Innovation can be learnt so if you feel an organisation is not innovative, then there are ways to incorporate innovation in their management structure (Filatotchev et al., 2020).

Eco-Innovation

Many countries and regions are focusing on eco-innovation as a form of competitive advantage. This means environmental forms of innovation are being utilised as a form of social and political policy. Consumers and companies are more aware

of their need to be socially responsible. Kemp and Pearson (2007: 8) define eco-innovation as “the production, assimilation or exploitation of a product, production process, service or management, or business method that is novel to the organisation (developing or adopting it) and which results, throughout its life cycle, in a reduction of environmental risk, pollution and other negative impacts of resources use (including energy use) compared to relevant alternatives”. This definition highlights how eco-innovation has a number of components including it being novel and having an environmental impact. It can involve the development or adoption of a product and needs to have better performance capabilities than its competitors. Eco-innovation is sometimes referred to as green or environmental innovation but is different as it focuses more on social aspects of ecological concern.

Eco-innovation should reduce the negative impact of an innovation by considering ecological objectives. The intention of the innovator in an eco-context is to make a societal impact through environmental change. Eco-innovations should provide both business and customer value in terms of decreasing environmental impacts. This can be achieved through diagnosing environmental problems then coming up with an innovative solution. This means integrating environmental considerations into organisations innovation processes from the idea generation stage to the commercialisation stage. The main goal of an eco-innovation is to provide a better solution to other ideas in terms of resource usage. This means utilising resources in a more responsible manner. As many natural resources such as energy, land and water are finite they need to be utilised in a sustainable way.

Opportunity Recognition Checklist

In order to recognise opportunities in the marketplace it takes time and effort. This ability can be improved over time by regularly scanning the market to identify gaps. It is helpful in building a person’s ability to recognise opportunities to constantly be open to new ideas. This means identifying ways to obtain information and knowledge that is relevant to the market situation (Jones et al., 2020). Table 7.1 provides an eco-innovation checklist.

Table 7.1 Eco-innovation checklist

Eco-innovation question	Yes	No	Unsure
Do you analyse existing environmental activity to identify ways to improve it?			
Do you think about environmental market possibilities for your organisation but also stakeholders?			
Do you try to identify environmental opportunities with the objective of acting on them at a later point in time?			
Do you try to create situations in which you can seize an entrepreneurial opportunity in order to increase your organisation’s competitive advantage?			

Context of Topic

Over the past decade there has been a surge in interest in the topic of sustainability (Konietzko et al., 2020). This is due to issues such as global warming and environmental damage being at the forefront of media discussions. In addition, consumers are becoming more aware of the role they play in sustainability initiatives (Ludwig & Macnaghten, 2020). Sustainable innovation involves any form of innovation activity that incorporates environmental objectives (Rashid & Ratten, 2021). The emphasis is on how innovation can occur in a good way that takes into account both current and future needs (Kohli & Melville, 2019). This means thinking about side effects and other impacts that an innovation might cause in society. Often innovation is only thought about in terms of immediate impact but other kinds of related impacts should be considered (Madichie et al., 2019).

Tello and Yoon (2008: 165) define sustainable innovation as “the development of new products, processes, services and technologies that contribute to the development and well-being of human needs and institutions whilst respecting natural resources and regenerative capacities”. This definition suggests that development is needed but it should be done in an ethical manner. This can be hard to do as the changes might require the use of natural resources. Therefore, this should be done in a regenerative way so that only the resources needed are used and there is no wastage. Consideration is also needed on how many people can utilise the same type of natural resources such as land, wood and water. Thus, the process of regeneration should be managed in a sustainable way (Najafi-Tavani et al., 2018).

The emphasis on sustainable forms of innovation is consuming less than is needed so there are leftovers for others. This means thinking about how the actions of one individual or organisation affect others in society. Bos-Brouwers (2010: 422) define the concept of sustainable innovation as “innovation in which the renewal or improvement of products, services, technological or organisational processes delivers not only improved economic performance but also an enhanced environmental and social performance”. This definition highlights the way different types of processes can improve economic performance, which is usually measured in a financial way. It also includes environmental and social performance that is measured more in a non-financial way. This means environmental performance normally refers to how natural entities are coping with change. This includes living organisms such as plants, humans and animals. Social performance is more about collective gain terms of things like living conditions.

Group Activity

Choose an organisation that you consider to be ethical and responsible. Research online what kind of policies they have that make them responsible.

Circular Economy and Sustainable Innovation

Markets change over time as new products, services and technologies become available (Nambisan et al., 2019). Traditional markets still exist but they have been complemented by new and novel forms of business interaction. Sprong et al. (2021: 45) define market innovation as “purposive actions by market stakeholders that result in a distinctly new or altered form of market”. Examples of new markets include those related to the sharing economy in which entities trade products in an online environment. Websites such as Amazon, Uber and Airbnb have supported the development of new markets which have been particularly important during the COVID-19 pandemic.

The idea behind sustainable innovation is that it maintains the ecological balance in society. In the past organisations did not have to incorporate sustainability into their business models but now it is expected and, in many countries, mandated. Organisations are now urged to consider their triple bottom line (economic, social and environmental performance). This enables them to focus on financial objectives but also consider social and environmental needs.

Related to the idea of sustainable innovation is the circular economy, which is a regenerative system in which waste is reused in order to create new products. This means it limits resource usage by recycling material. The idea of a circular economy is not new as societies have for centuries reused waste in order to create new things. However, this was typically done because of necessity rather than choice. The concept does offer newness in some sectors of society particularly in terms of the manufacturing industry.

Murray et al. (2017: 371) states “the term circular economy has both a linguistic and a descriptive meaning”. The linguistic meaning refers to it involving the conversion of waste into new products whilst the descriptive meaning refers to how it occurs in society. The circular economy recognises that the misuse of waste leads to unsustainable forms of production. This means the removal of waste from the environment has positive benefits.

A circular economy tries to reduce the effect of production on the environment by restoring damage (Ratten, 2019). It can do this by reducing unsustainable production methods and decreasing pollution levels. A key part of the circular economy is in resource recycling. This means unwanted outputs can be used as raw materials in another production process. Most discussions on the circular economy refer to the three R's of reduce, reuse and recycle (Murray et al., 2017). An efficient producer should have no waste as they convert everything into something of value. To do this requires creativity in how waste can be used. It does not have to be done in a technologically advanced way but can be done in a simple manner. For example, food wastage being converted into compost in order to grow new fruit and vegetables.

Resources need to be processed in cycles in order to facilitate the flow of energy. This means the circular economy in a way is a philosophy as it suggests that everything can be reused in some way. The idea behind the circular economy can be linked

to the ecology field that stresses the role of ecosystems in the environment. In an ecosystem everything is related in some way so the actions of one entity effect the actions of others regarding innovation intentions (Pfothenhauer et al., 2019).

Implementation Process

The circular economy has gained prominence recently as a way to describe economic activity that reuses and recycles existing products. Instead of selling mostly new clothes there are now shopping centres that only sell recycled clothes and other products. This is in contrast to the consumer culture that permeated in the 1990s and early 2000s. Nowadays there is more emphasis on reusing products in order to cut down on environmental waste.

The circular economy is a way for society to decrease consumption and increase sustainable forms of production (Ratten & Jones, 2018). The idea behind a circular economy has been in existence for a long time. However, only recently has it been implemented into policy discussions. Korhonen et al. (2018: 545) states that the circular economy approach “emphasises product, component and material reuse, remanufacturing, refurbishment, repair cascading and upgrading as well as the potential of sustainable energy sources such as solar, wind, biomass and waste-derived energy utilisation”. This means unlike traditional recycling that emphasises elimination of waste in the circular economy, there is a focus on value added activities.

The circular economy literature is derived from research on cleaner production, industrial ecosystems and ecological ecosystems. It bridges the concepts such as having a social ecological system with natural capitalism. Thereby highlighting the need to integrate eco-efficiency thinking with production economics. Businesses need to integrate more environmental considerations into their business models in order to respond to change. D’Amato and Korhonen (2021) suggests that there are commonalities between the circular economy concept and the bioeconomy or green economy concepts. This is due to all of them emphasising sustainability in business practices. The circular economy emphasises the connections between entities in the environment whilst the green economy focuses on environmental-based solutions. This means the similarity between the circular and green economy is one resource efficiency regarding usage of materials. Both also emphasise clean technology such as solar power. The bioeconomy focuses on using more environmentally friendly substitutes within business practices. Therefore, it is similar to the circular economy in trying to incorporate environmentally friendly alternatives. It also recognises the need for greener sources of inputs and outputs.

Key Aspects in Success

The field of innovation management is the study of how individuals in a management context select and use innovative ideas in order to satisfy business needs. Innovation management is more specific than just studying innovation as it focuses on the management process. This means looking into the antecedents and consequences of innovation action. Therefore it is important to understand the factors and trends shaping innovation behaviour and the ways managers can use this information will be discussed. Innovation management is a multidimensional process as it involves the use of numerous factors. This includes the analysis of the economic, cultural and social conditions that influence innovation. The demographics and lifestyle concerns of individuals will influence how innovation develops over time. Innovation management is further complicated when the wants of multiple individuals with different needs are taken into account. This occurs when a group of individuals must make a decision about what type of innovation to use.

Individuals are making innovation decisions every day. This means organisations need to collect information about the innovation in order to produce better products and services. Social innovation is the use of innovation strategies to create a positive effect on society. It involves altering behaviour on targeted individuals as a way of improving standards of living. It is normally used to facilitate better development of products related to the environment or social conditions. For example, making products with recyclable materials or the use of a service that encourages better water usage. Successful social innovation requires a sound understanding of what kind of social issues are being emphasised in society. For example, social innovation has been used to facilitate better usage of parklands in conjunction with business needs and to increase the percentage of people using renewable energy. The idea behind social innovation is that it creates a win-win scenario for all involved. This means interacting with others in order to produce better results. A firm's social innovation strategies are shaped by social policies and environmental issues.

Advantages and Disadvantages

There are many advantages associated with green innovation due to its emphasis on sustainability practices. In the past there was not enough emphasis placed on green initiatives within innovation because of the extra money associated with doing so. This meant innovation tended to focus more on monetary outcomes rather than the social good it could do in society. Table 7.2 states the main advantages and disadvantages associated with green innovation.

Table 7.2 Advantages and disadvantages of green innovation

Advantages	Disadvantages
1. Focuses on the effects of innovation on the environment	1. Neglects other forms of innovation
2. Highlights the need for sustainability within innovation practices	2. Stresses too much on the environmental rather than market role of innovation
3. Stresses the need to develop eco-innovations	3. Can be difficult to combine sustainable and business goals
4. Focuses on new and emerging technology that is relevant to sustainable forms of innovation	4. Focuses too much on sustainability rather than efficiency in innovation practices
5. Highlights how innovation can be both practical and environmentally friendly	5. Sustainability might already be embedded in innovation practices so the extra emphasis is not needed

Classroom Activity

In groups of 4–5 people draw a green innovation. This could be an idea for a sustainable product or a process that can be conducted in a sustainable way. Try to include pictures about how the innovation occurs in the surrounding environment.

Sustainable Food Innovation

The food and drink industry is incredibly entrepreneurial due to its global competitiveness. There is a constant need to innovate in order to obtain a competitive advantage. The innovation can occur in a variety of different ways from product packaging, to ingredients and marketing campaigns. Brooker and Joppe (2014) suggest that an innovator can be considered as an artist as they are the ones who come up with an original idea then progress it based on market feedback. Conceptualising an innovator as an artist is a useful way to understand the process of innovation as each individual has an original view as to what the innovation should look like. This vision is then evident in how an innovation works and how it is perceived in the marketplace. Brooker and Joppe (2014) view the early innovation adopters as artisans. This means they are creative people who take a hands-on approach to the process of innovation. An artisan normally uses a direct approach in terms of engaging personally in the creation of a product or service. It is useful to think of the early innovation adopters as artisans as it highlights the level of engagement between the innovator and the market environment.

Brooker and Joppe (2014) suggest that the early and late majority of innovators can be considered as painters. This means they are actually putting ideas into action and the painting analogy is a useful way to understand the innovation process. The food industry is complex as it involves a number of different activities such as the

planting of crops, making of products to marketing and sales. The agricultural sector involves managing crops and livestock. There is also the associated machinery and construction needed to house food products. The food once grown often needs to be processed in terms of preparing it for the market. It then needs to be distributed to retailers. Sometimes the food is sold directly to consumers via online stores or farmers markets. The distribution of food includes logistics and transportation. Depending on where the food is being transported to it can involve sea or air travel. This then brings into consideration any taxes or tariffs that apply. This means there is an international trade aspect to the food industry.

Recently there has been a surge in food delivery apps, mostly as a response to the COVID-19 pandemic. This has dramatically changed the food industry. Food apps can be used in a number of different ways. For home delivery people can utilise a food app order food online then get it delivered to their home. For takeaway services, people can utilise a food app to select products that they go and pick up from a store. For restaurant or café services, increasingly food apps are being used instead of waiters. This means customers scan a barcode or go to a website directly to order their meals. The introduction of food apps has also led to the growth of home kitchens.

The food industry faces many pressures including the sourcing of materials to delivery within expected timeframes. Prior research on entrepreneurship can help to understand the way the food industry has become sustainable. This includes discussing emerging industry trends such as biotechnology, environment, labour rights and health issues. Also considered are recent events such as the COVID-19 crisis and supply chain disruptions. Ultimately, the discussion serves as a tool to support food entrepreneurs in the assessment of innovative practices.

Technological advancements including mobile payment systems, product tracking and online commerce have created massive opportunities for food entrepreneurs. The shift to online ordering and delivery of food has led to underlying structural changes in the industry. This includes at-home kitchens that do not have a permanent retail store but instead sell online. Another innovation has been food trucks that can relocate easily to in-demand places.

The new economy is often referred to as the digital, knowledge or online economy. This has meant there has been a big shift to digitalization of all areas of the food industry. This is making food producers move from a traditional to more information technology-based structure. Advances in internet capabilities and social networking sites have further changed the food industry. There are more Youtube videos of food entrepreneurs demonstrating their inventions and marketing their products. This direct communication has been a game changer as it has created a direct connection between food entrepreneurs and consumers.

Organisation Example: Starbucks Coffee (<https://www.starbucks.com.au>)

Coffee is one of the most popular drinks in the world. Traditionally coffee was brewed using roasted coffee beans but instant ready to go coffee has become

popular. In addition, at home coffee machines that use pods such as Nespresso have become common in people's homes. In the past, percolators were used to make coffee but this changed to machines that when a coffee pod was inserted brewed the coffee. The COVID-19 pandemic caused an increased interest in at home coffee machines.

Takeaway coffee in throwaway cups became popular in the early 2000's. This coincided with global coffee retailers such as Starbucks rapidly increasing their number of global stores. Starbucks was innovative by writing customers names on their cups thereby personalising the drink. In addition, Starbucks was innovative by using their own names for small, medium and large sizes such as venti and grande. These innovations did not cost much money to implement but differentiated Starbucks' coffee from other types of coffee. Cold brewed coffee such as iced coffee that people can buy in a can or takeaway container are becoming popular. Please consider the following questions:

1. How has Starbucks been innovative?
2. How has Starbucks incorporated sustainability into their business practices?
3. What new innovations would you suggest Starbucks consider?

In Class Debate Question

In class divide the class into groups who agree or disagree with the following statement. As part of the debate, research why you agree or disagree and provide reasons for this choice. You should also give detailed organisational examples that support your reasoning.

- Every organisation needs to conduct some form of green or eco-innovation.

Internet Exercise

Choose an organisation that you consider to have a high level of green and eco-innovation. Research online what new products or processes they are developing.

Lessons Learnt

- Green and eco-innovation are one of the most popular forms of innovation.
- There is an increasing need for organisations to implement green forms of innovation.
- Sustainability policies are emphasising green innovation.

Discussion Questions

1. How can organisations do more green innovation?
2. What is the difference between eco, green and sustainable innovation?
3. To what extent do you think making all innovations in a sustainable way can contribute to societal growth?
4. What is the role of government policy in facilitating green innovation?
5. What are the cost advantages to sustainable innovation?

Learning Outcomes

- Green and eco-innovation are becoming more popular in organisations particularly those that have a sustainable objective in their goals.
- Green innovation can be developed in many different ways including through recycling initiatives or via the circular economy.
- Senior leaders of an organisation need to be committed to green innovation.
- Global organisations regardless of their location and industry size need to engage in green innovation.
- Green and eco-innovation focuses on environmental initiatives within the innovation process.

Conclusion

This chapter has discussed green and eco forms of innovation. Thereby highlighting how environmental concerns are being emphasized more by consumers and governments as a way to combat climate and social change. The chapter examined the increased popularity of these forms of innovation and why more emphasis needs to be placed on them. Therefore, stressing the need to consider political aspects of innovation that lead to the development of more sustainable forms of innovation.

Multiple Choice Questions

1. The word innovation is derived from which Latin noun?
 - (a) innovates
 - (b) succeed
 - (c) performance
 - (d) change
2. Incremental innovation involves what kind of size adjustments?
 - (a) large
 - (b) small
 - (c) both small and large
 - (d) none of the above
3. What kind of innovation involves modifying practices to benefit the environment?
 - (a) sport
 - (b) technology
 - (c) social
 - (d) environmental
4. What kind of innovation best describes pollution prevention, waste recycling and green product design?
 - (a) technology
 - (b) social
 - (c) sport
 - (d) green
5. What kind of innovation is best described as involving change that reduces the impact of resource usage?
 - (a) technology innovation
 - (b) sport innovation
 - (c) eco-innovation
 - (d) social innovation

Answers: 1. (a), 2. (b), 3. (d), 4. (d), 5. (c).

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Chapter 8

Artificial Intelligence Innovation



Learning Objectives

- To understand the way artificial intelligence is being utilised in innovation endeavours.
- To analyse how artificial intelligence is changing the innovation process.
- To distinguish between different types of artificial intelligence.
- To examine the role of human–computer interaction in innovation.
- Highlight how consumers are expecting more technology-enabled innovation.

Introduction

Artificial intelligence is being utilised by more organisations as a way to incorporate innovative change. Due to the internet of things and increased computing power, there has been a surge in interest in innovative artificial intelligence usages (Di Vaio et al., 2021). This means emphasising machine learning and other tasks that computers can do that mimics human thinking. Thereby highlighting the way data analytics has transformed current business practices.

There is an emphasis in business on completely digitalised production methods. This is due to more interest in digital manufacturing as a way of enabling advanced levels of customisation. Giuggioli and Pellegrini (2022: 1) define artificial intelligence as “how digital computers and algorithms perform tasks and solve complex problems that would normally require or exceed the human intelligence, reasoning, and production power needed to adapt to changing circumstances”. Artificial intelligence enables organisations to make use of intelligent machines as a form of deep learning. It helps people to spend more time on creativity activities rather than doing mundane tasks. The internet-of-things that utilises connected electronic devices has increased the usage of artificial intelligence. This is due to the vast volumes of data and internet services being utilised in the global marketplace.

Some of the innovations in artificial intelligence include augmented reality and blockchain technology. Augmented reality is defined as “a human computer interaction system that blends real and virtual 3D objects in real time” (Giuggioli & Pellegrini, 2022: 3). There has been an increased emphasis on augmented reality particularly during the COVID-19 pandemic when people could not travel. This meant they could virtually visit places from the safety of their home. More computer games have also been using augmented reality as a form of entertainment. Blockchain is another technology that has become popular. It is commonly talked about and discussed in the media as a new form of business transaction. Blockchain is defined as “a distributed chain that keeps records of digital assets securely and transparently” (Giuggioli & Pellegrini, 2022: 3). Thus, blockchain ties in with the growth of mobile and electronic commerce requiring alternative payment methods.

Case Study: Blackberry (<https://www.blackberry.com/us/en/products/devices>)

Blackberry manufactured business smartphones that could connect to the internet and send email. They had a traditional keyboard as well as screen. They did not adapt to the new touchscreen keypad that other smartphones began using. Blackberry controlled a large percentage of the smartphone market but lost this market share to competitors. The company was originally called Research in Motion and the Blackberry phone was marketed to business professionals as a way of staying in contact with others. When the iPhone was introduced into the marketplace it changed the mobile phone industry. The iPhone had a touch screen keypad instead of Blackberry’s physical keyboard. Blackberry thought they had the business market and that the Apple iPhone catered more for the consumer market. The iPhone began updating its features on a yearly basis and soon iPhone sales exceeded Blackberry sales. In addition, Apple began offering apps for their phones. Apple also introduced camera features on its phones, which were not available on Blackberry phones. The added-on features on iPhones made consumers shift to these types of phone. Some questions to consider:

1. Why was Blackberry not as innovative as Apple with their smartphone product features?
2. What should have Blackberry done to stay competitive in the marketplace?

Innovation in Data Storage

There have been many innovations in the way data is stored and managed. Originally data was stored in written format by hand. It normally was written into a book that was then kept in storage and updated as new information emerged. With the advent of

the printing press information could be quickly disseminated to others in newspapers, magazines or books. This meant information being codified in terms of being written onto material that could be read at a later time.

Typewriters helped with this process as people could type information so that others could read. With the advent of computers information was typed so it could then be stored in an electronic format. Originally computers were very large and mostly located at research institutions such as universities. Punch cards that included information could be inserted into the computer. This information was then analysed by the computer but the output could take hours to analyse. Magnetic tape that held information was the next kind of storage method available. This led to cassette tapes that held magnetic tape being used. These cassette tapes were used to play music and to watch videos. Removable hard drives then became available and were typically included with computers as part of a package. The introduction of personal home computers meant people also had a removable hard drive. This then led to the use of floppy disks that held information. They had a metallic panel on them and typically contained word document files.

After floppy discs became popular for storing data, smaller storage devices called USB sticks entered the marketplace. Initially they could store small amounts of information but as time progressed more data storage capabilities were added. Around the same time, DVDs and CDs were also being used to store information. Due to more people using mobile commerce and internet services there became a need for cloud computing services. Therefore, companies such as Dropbox entered the market and enabled individuals to store and then access data from any location and any time point. This has then led to automatic storage services becoming available in some computing devices. The next trend related to data storage is expected to involve the use of artificial intelligence.

Innovation Policy

Sometimes innovative ideas sound good but when they actually enter the marketplace they are not received well. The reasons for this vary from a lack of proper consultation with customers to the timing not being correct. The interest in innovation is normally tied to a general concern for improvement in any area of business (Fagerberg, 2018). This means there is a desire to increase the quality of a product or how services are performed. Kiewit and Baptista (2021: 3) define public policy as “any action aimed at promoting, financing, developing and disseminating innovation, regardless of its materialisation”. There is an increasing need to implement policies regarding innovation in order to encourage change. Policy can be implemented in the public or private sphere depending on where it is most effective. It is helpful to have a broad definition of public policy in order to include different ways it can occur.

To determine if something should be classified as innovation a number of criteria can be used (Guertler et al., 2020). These criteria can include whether the change is original, new and related to business. The idea behind innovation is that it should

make life easier for people using it (Goffin et al., 2019). This means there is a focus on positive change rather than negative change. Not all innovation will result in good outcomes as there can be a time delay between when an innovation is adopted and when it provides a beneficial outcome (Geissdoerfer et al., 2018).

Beats Headphones (<https://www.beatsbydre.com/au/products>)

Beats Electronics is a company that focuses on headphones. It was established by Dr. Dre and Jimmy Iovine as a way to offer more user friendly and high quality headphones in order to listen to music. When the company first started the idea behind the products it would offer was to provide a premium music listening device. Beats headphones were innovative as they looked different to other headphones by having cushioning around the ear and are wireless. This meant they were more easily worn by consumers and became a fashion item. Initially the company partnered with Monster Cable in 2007 to make the first pair of Monster Beats headphones. They were expensive compared to other existing headphones in the marketplace. In 2011 HTC bought a stake in the company but in 2012 Jimmy Iovine and Dr. Dre bought back some of the company from HTC. Apple bought the company in 2014. Some questions to consider:

1. Why did Beats focus on headphones for its main product innovation?
2. Why did Apple buy the company?
3. What are some new innovative ideas for headphones?

Context of Topic

The internet has made possible the collection of online data in terms of time and location information. In order to increase the online experience of people utilising the internet, there has been a rise in interest in data analytics (Jones & Ratten, 2021). This enables others to analyse the information collected online to see if there are any patterns. This will help in future online activities and produces information that can be strategically useful to companies.

The way we use and access data has rapidly changed in the past decade. There is more real time information being collected online that can then be inserted into computer programs. This makes data more personalised and individualised. There are some ethical considerations people need to consider about the use of data. This is due to people often not knowing how and why information about them is being collected.

Data originally was collected in a structured way. This included names, birthdays and resident information. The way the data was then utilised was typically in the form of excel spreadsheets that the user imported data into or manually entered. The

structured data was an important source of trends and helped to predict behaviour. Unstructured data is not in a specific format so needs to be analysed for patterns. It typically includes real time information about online behaviour. Due to the increased capacity of online companies to store information the use of unstructured data has increased.

Group Activity

The world wide web (www) is a set of interlinked documents that can be accessed through an online search engine. It is like a street address but in an online format. It enables others to post information online in order for others to view it. It is not static as it is continually being updated all the time.

Visit the website of Berkshire Hathaway (www.berkshirehathaway.com) and Amazon (www.amazon.com). Compare how much information is on both websites in terms of pictures and data.

Discussion questions

1. How does the website of Berkshire Hathaway and Amazon differ?
2. How do you think the websites for both companies have changed over time?
3. How have these websites influenced the competitive position of both companies?
4. Do you think a more simple or complex approach is required to website design by companies?
5. Do you think website design depends on the type of business or industry?

Key Aspects in Success

There is a relationship between innovation and culture in society (Maalaoui et al., 2020). This is due to innovation often being the result of societal attitudes towards change. Innovation occurs from the formal and informal interaction that people have in society (Lee et al., 2019). Formal interaction can include recognised collective action in terms of community centres or neighbourhood houses focusing on innovative projects. This might relate to environmental or sustainability initiatives or focus on regional growth. Informal interaction is harder to describe and measure as it occurs in an adhoc way.

Our everyday existence is permeated by innovation. Most of the innovation is related to our interaction with technology such as mobile devices (Markovic et al., 2020). However, it can also involve the new types of activities that we engage in such as binge watching a television series. Culture relates to the collective action of a group of individuals in society. Therefore, it normally relates to ethnicity, religion

or another type of activity such as sport. This means culture in terms of attitudes influences the reasons why people behave in certain ways.

Entrepreneurship is an important way that organisations can change and adapt (Marques, Lopes, et al., 2021). Entrepreneurship is a complex topic as it has a variety of meanings depending on the context. In the food industry it is often referred to in terms of the global food supply chain. This is due to the need to incorporate sustainability initiatives within food packaging practices. Entrepreneurship has the potential to yield economic and social value (Marques, Marques, et al., 2021). Given the high level of environmental uncertainty due to the COVID-19 pandemic, entrepreneurship is needed to solve problems. Entrepreneurship involves business and society interacting for a purpose. This relationship has evolved considerably in the past decade with entrepreneurship becoming an integral part of society. Entrepreneurship is not static as it changes over time. This means care needs to be taken when interpreting the effects of entrepreneurship. There is debate around whether the internet produces positive, negative or no effects on society. Those who view the internet in a positive way suggest that it offers efficiency gains and increased ways to communicate that are needed in our global society (Mazzucato, 2018). This means the internet is viewed as a complementary service to existing technological devices.

Advantages and Disadvantages

Artificial intelligence has brought about numerous advantages including the decreased need for humans in some activities. This has made it possible for people to focus more on their leisure time and work/life balance. At the same time there has been a debate about the ethical and moral use of artificial intelligence instead of humans. This has made it a contentious area of inquiry. Table 8.1 states some

Table 8.1 Advantages and disadvantages of artificial intelligence

Advantages	Disadvantages
1. Enables people to focus on other tasks	1. Relies on computers instead of humans
2. Increases efficiencies for an organisation	2. Can take a long time to learn how to use artificial intelligence
3. Enables more data to be obtained	3. Requires appropriate training and development
4. Allows for managers to focus on time and resource allocations	4. Focuses too much on data analytics instead of human intuition
5. Allows the tracking of certain tasks in an organisation	5. Stresses the need for technological rather than human capabilities in an organisation

advantages and disadvantages of artificial intelligence.

Classroom Activity

In groups of 4–5 people draw a picture of an innovation that incorporates some form of artificial intelligence. This could be a robot or automated process that makes use of computing technology.

Organisation Example: Napster

Napster was an online file sharing service that was established in 1999. It was utilised by people to share music in a free way. It was a peer-to-peer file sharing network where people uploaded music files and others downloaded them from any geographic location. Prior to the introduction of Napster, music was normally consumed in different formats such as via radio, television, at concerts or through recorded files bought as records, tapes or CDs. Napster revolutionised the music industry and made music freely available. Digital music files in a mp3 format enabled people to share music files. It was an easy way to share audio files and made the cost of music free. The sharing of the music files was done without copyright approval so was an illegal activity. This meant many musicians who rely on record sales for their income protested against the use of Napster. The Recording Industry Association of America filed a lawsuit against Napster and as a result Napster was shut down in 2001. Apple iTunes was established after Napster in order to buy legally music files. Therefore, what started as a free and illegal activity was then transformed into a paid marketable service. Apple offered via iTunes songs for 99 cents each rather than only selling an artist's entire album. This further changed how music was bought and consumed. iPods that could be recharged via electricity further revolutionise the music industry. The initial upfront cost of an iPod was expensive but the recharging of the device cheaper than prior portable music devices. Previously Sony Walkmans were used to listen to music, but they normally required a person to insert a cassette tape or CD rather than downloaded music files. In addition, Walkmans required batteries that had to be bought regularly thereby increasing the cost of listening to music. Some questions to consider:

1. How did Napster shape the music industry?
2. What other innovations were developed as a result of Napsters use of peer-to-peer file sharing?
3. What do you think the next innovations will be in the music industry?

In Class Debate Question

In class divide the class into groups who agree or disagree with the following statement. As part of the debate, research why you agree or disagree and provide reasons for this choice. You should also give detailed organisational examples that support your reasoning.

- All innovation needs to incorporate some kind of artificial intelligence.

Application Activities

1. Interview a manager of a store to find out how they are responsible with regards to innovation practices. Find out from them what kind of moral practices they try to engage in that relate to innovation.
2. Find an advertisement that mentions the word innovation. What is the advertisement trying to convey in its message and how does this relate to corporate social responsibility practices?
3. Interview a consumer that buys products based on the companies ethical practices. Ask them why they purchase ethical products and how this product attribute can be utilised as a competitive advantage in the marketplace.

Internet Exercise

Choose an organisation that develops innovations related to artificial intelligence. Research online what types of products they are currently in the process of developing.

Lessons Learnt

- Artificial intelligence is a way organisations can increase their innovation capabilities.
- The internet-of-things is enabling the use of artificial intelligence.
- Big data and data analytics are contributing to new innovation developments.

Discussion Questions

1. How important do you think artificial intelligence is in innovation processes?
2. How have you engaged with different types of artificial intelligence?
3. To what extent do you think human–computer interaction is important?
4. Do you think more manufacturing places will use robots instead of humans?
5. How can robots and humans co-exist in society?

Learning Outcomes

- More artificial intelligence is being utilised in innovation due to increased computer power.
- The innovation process is utilising artificial intelligence in terms of predicting and understanding behaviour.
- Artificial intelligence can take a variety of forms in terms of low to high levels of interaction.
- There is more usage of human–computer interaction in society.
- Consumers are expecting more sophisticated levels of technology-enabled innovation.

Conclusion

The use of artificial intelligence will forever change how innovation is conducted in organisations. This means emphasising the use of internet capabilities and data analytics to ensure an organisation manages its processes in a more efficient manner. The chapter discussed the role of artificial intelligence in business model innovation, which highlighted the creative ways machines can be used in society.

Multiple Choice Questions

1. Artificial intelligence is defined by Giugglioli and Pellegrini (2022) as:
 - (a) a system of networked entities
 - (b) big data
 - (c) how digital computers and algorithms perform basic tasks and solve complex problems that would normally require or exceed the human intelligence
 - (d) none of the above
2. Augmented reality can be best described as:

- (a) a human computer interaction system that combines real and virtual information
 - (b) a analytics decision making system
 - (c) a complex business system analysis
 - (d) none of the above
3. Public policy is defined by Kiewit and Baptista (2021) as:
- (a) any action aimed at promoting, financing, developing and disseminating innovation regardless of its materialisation
 - (b) any action aimed at collective action
 - (c) all of the above
 - (d) none of the above
4. Beats Electronics was established by who?
- (a) Dr. Dre
 - (b) Puff Daddy
 - (c) Jimmy Iovine
 - (d) a and c
5. Napster was what kind of company?
- (a) an online file sharing service
 - (b) a food company
 - (c) a clothes company
 - (d) none of the above

Answers: 1. (c), 2. (a), 3. (a), 4. (d), 5. (a).

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Chapter 9

Innovation Trends



Learning Objectives

- To understand the most relevant innovation trends in the global marketplace.
- To analyse how organisations can be innovative.
- To think about how innovation will change in the future.
- To recognise innovation trends.
- To consider what needs to be done now for organisations to stay innovative.

Introduction

This chapter will focus on innovation trends that are occurring in the marketplace. This includes highlighting different forms of innovation and in various business contexts. Thereby enabling a discussion to emerge on how innovation will occur in the future. As part of the discussion, it will be highlighted how organisations need to consider change and what they need to do now in order to benefit from future innovation developments.

Case Study: Dr. Martens (For more information please visit <https://www.drmartens.com/intl/en/history>)

Dr. Martens is a footwear company known for the yellow stitching on their leather shoes. In 1901 the Griggs family began making shoes in Northamptonshire in the United Kingdom. In 1945 whilst recovering from a broken foot, Dr. Klaus Maertens created a shoe with an air cushioned sole instead of the normal hard leather sole used in shoes. He went into a partnership with a mechanical engineer Dr. Herbert Funk to produce shoes. The Griggs company then acquired an exclusive license to sell the innovative shoe. The shoe design was changed to include yellow stitching and an altered heel. The shoes were marketed as

airwair with bouncing soles that were designed for comfort. Initially the shoe was sold as a work shoe but it then changed to be a fashion item. Musicians began wearing the shoe and it became a cultural phenomenon. In 2000 the brand began a revitalisation process to change the positioning of the shoe in the marketplace. In 2007 handmade shoes began to be made in the Northampton factory. Some discussion questions to consider:

1. What is the role of the name Dr. Martens in the brand's success?
2. How did the company reposition itself in the marketplace?
3. What is the role of advertising in the company's success?

Context of Topic

In order to be innovative it helps to have a problem solving mindset. This will enable individuals to keep an open mind as to possibilities. This kind of mindset is a psychology tool that can be used to build better and more efficient businesses. To solve problems, individuals should be curious about how to do this. Thus, treating the problem like a jigsaw puzzle in that it can be solved in a number of different ways.

Group Activity

In groups of 4–5 students ask each person what they think will be the best new innovation in the next 10 years and then 100 years. Then choose one innovation out of all the ideas given in the group and develop an innovation management plan for how this could take place.

Implementation Process

In order to implement an innovation trend, it can either be done immediately or might take time. It depends on what kind of change is being introduced and whether it differs to an organisations existing production facilities. For technological related change, the trend might mean the new innovation relates to previous versions or alternatively it might be a completely different concept. Therefore, it can be useful for an organisation to have policies in place that deal with how to incorporate innovation trends.

Birkenstock (For more information please visit <https://www.birkenstock.com.au/about-birkenstock>)

Birkenstock is a shoe company known around the world for their sandals. The history of the company dates back to 1774 when Johann Adam Birkenstock is noted as a shoe maker in the archives of a church in Hesse, Germany. In 1925 a large factory was built in Hesse in order to increase production. In 1932 Carl Birkenstock started a training course which was followed in 1935 with the publication of a book titled 'A doctor's guide to footcare and heresy'. In 1947 a textbook titled 'Podiatry- Carl Birkenstock's System' was printed. In 1963 the Madrid sandal was introduced into the marketplace. This was followed by other sandals having specific names. In 1973 an electromechanical moulding machine started that enabled shoes to be made in the same Birkenstock style. In 1983 Karl Birkenstock published a book titled 'Birkenstock foot primer'. In 2013 the company was consolidated into a group and the management changed to a person who was not a family member. In 2014 Birkenstock began licensing their name to new products in order to increase their business. Some questions to consider:

1. What was the role of the books being published to the reputation of the company?
2. What was the role of family in the company's success?
3. What kind of new products do you think Birkenstock should develop?

Key Aspects in Success

To be successful in terms of managing innovation, there needs to be sufficient time and resources devoted to the process. This can take some effort to implement due to the complexity of the innovation process. Organisations need to be aware that each type and form of innovation is different, so it needs to be managed in the appropriate way. This will enable organisations to succeed better at the process of managing and innovation, thereby, enabling them success in the marketplace.

Advantages and Disadvantages

The advantages associated with focusing on innovation trends is in terms of being a first mover in the marketplace. This enables an organisation to focus on innovative products and services before others do. This helps to ensure the organisation is ahead of the competition and makes them a market leader. The disadvantages are derived from too much focus on the future without thinking about the present. Table 9.1 states the main advantages and disadvantages associated with innovation trends.

Table 9.1 Advantages and disadvantages of innovation trends

Advantages	Disadvantages
1. Focuses on changes that might occur in the global business environment 2. Allows for time to implement the changes 3. Highlights the need to adapt and change 4. Enables a focus on organisational learning 5. Allows organisations to obtain new knowledge and information	1. Can take time to incorporate the changes 2. Might lead to transformational change that is unexpected 3. Might take too many resources to implement 4. Can be emotionally exhausting 5. Can be resource intensive

Multidisciplinary Influences on Innovation Trends

If the innovation field is to progress, there needs to be a consolidation amongst researchers about defining the field. This will give a sense of legitimacy to the research and enable it to quickly grow. This will make the amount of research and practice on innovation rival other areas of interest such as entrepreneurship. Even so, there is often a reluctance on the part of practitioners and researchers to emphasise the industry context and instead rely on specific constructs such as entrepreneurial orientation that are general in nature. Innovation studies are more likely to have a multidisciplinary basis due to innovation in general being multidisciplinary in nature. This means future research can take a number of different approaches regarding its direction. Table 9.2 highlights how each field can be linked to innovation. This will be helpful in understanding how gaps can be filled by future research.

Accounting

Innovations in the accounting area can take on a variety of different forms most of which relate to information technology changes. As an example, the food industry is one of the largest global industries, so new innovations are needed on how companies in the food industry compete with other companies. This can include innovations on understanding the role of taxes and tariffs on company performance. It would be interesting for more attention to be placed on different accounting systems used in different food companies. This could include information disclosure on profitability from different business ventures.

Agriculture

Agriculture is at the heart of many innovations typically with the way food is produced and processed. More innovation is thus needed on existing types of agricultural production in terms of food and minerals. Most innovation studies on food tend to be

Table 9.2 Future innovation trends

Field	Potential future questions
Accounting	What methods are best suited to analysing the impact of innovation? How can informal forms of innovation be measured?
Agriculture	What kind of agricultural innovation exist in the food and drink industry? What is the difference between agricultural innovation and other forms of innovation?
Anthropology	How does innovation exist in food production and manufacturing communities? What is the role of family and friends in a person's innovation orientation?
Arts	How do arts related innovators gain funding? What is the role of culture in influencing arts innovation?
Biotechnology	What is the role of government funding in biotechnology ventures? What kind of innovative medicines are being used in biotechnology?
Economics	How does innovation influence economic growth rates? How can economic policy influence the entrepreneurial intention of individuals?
Environment	What is the role of sustainability innovation in food and drink innovation? How are environmental concerns being incorporated into entrepreneurial ventures?
Ethnic studies	What is the role of ethnicity in innovation decisions? How is the diaspora contributing to innovation?
Finance	What kind of funding helps facilitate entrepreneurial projects? What is the role of new types of financing such as crowdfunding in innovation?
Gender	Does gender have an effect on the type of innovation that is developed? How do different genders manage innovation?
History	What role does the history and heritage of food play in innovation? How have international influences affected the development of innovation?
Information systems	How have internet companies in the food and drink industry developed over the past decade? What is the role of information systems in facilitating startups?
Management	How are entrepreneurial ventures managed in different industry segments? What is the best leadership style for innovation?
Marketing	How can marketing influence entrepreneurial business ventures? What type of entrepreneurial marketing techniques work best in terms of innovation?
Political science	What type of political structures work best for innovation? How can local, regional and national governments work together on entrepreneurial ideas?

(continued)

Table 9.2 (continued)

Field	Potential future questions
Project management	How are entrepreneurial projects be managed to encourage better innovation? How can partners collaborate in a more effective way?
Psychology	What kind of innovation helps people become entrepreneurs? Are certain personality characteristics associated with innovators and entrepreneurs?
Religion	What is the role (if any) of religion in innovation? How are religious organisations involved in innovation?
Rural	What are the most active rural regions for innovation? What products do rural innovators export?
Sociology	What kind of cultural forces play a role in the emergence of innovation? How are entrepreneurial ecosystems developed in different industries?
Sports management	What kind of sport related innovation will emerge in the future? What kind of sport technology innovations exist?
Tourism	How are tourism innovators coping with the COVID-19 pandemic? What is the role of regional development in tourism innovation?

focused on the technology sector and underestimate the importance of the agriculture and related sectors. Due to the large land mass and diverse forms of agricultural production, future innovations can take a number of different paths. It would be interesting to focus on the Amazon and medicinal herbs in terms of agricultural production. Due to many new medical discoveries coming from this region, it would be interesting to do research on their related innovations. This could include how the medicinal plants can be used in food or other forms of production. There may be many new discoveries in coming years related to plants, animals and insects found in the Amazon Forest in Brazil.

Anthropology

Innovation is a multidimensional topic with a unique history. For this reason, future innovation needs to incorporate more cultural information about how this has influenced different types of innovation. How innovation in food begins and develops needs to be analysed in more depth. This would enable new education and learning methods to be developed that target entrepreneurial growth.

Arts

The arts sector in the food industry is flourishing due to community interest. However, the COVID-19 pandemic has made it difficult for arts entrepreneurs to develop projects. Therefore, future innovations will focus on how social media and other internet platforms are being utilised. This can include information about interactive mobile formats that emphasise real time interaction. It would be interesting to investigate in more depth how digital technology has been utilised by arts entrepreneurs. This would help to understand how emerging innovations are being integrated into the marketplace.

Biotechnology

Increasingly more emphasis is being placed on biotechnology within the food and beverage industry. This is due to the innovative capabilities that enable foods to be made from different kinds of materials and to last longer. There is much debate about the use of biotechnology so future innovations could take an ethical approach to understanding how different people perceive biotechnology. This could enable positive and negative effects of biotechnology to be more fully understood. It would be useful to focus on societal trends with regards to product usage to see how biotechnology can be utilised in the marketplace.

Economics

Innovation tends to be perceived as having mostly a positive effect on society. Whilst this is normally true there can also be detrimental effects depending on the situation. Therefore, a more balanced approach to understanding innovation is required by managers. Economics tends to focus on the financial and monetary effects of innovation but non-financial effects such as social change need to be incorporated into innovation definitions.

Environment

There has been an increased amount of interest in environmental forms of innovation. This is due to sustainability being a core concern of most communities around the world. Innovations around the use of paper cutlery and bags have been introduced in society as a way to focus on biodegradable material. In addition, other sustainability initiatives include recycling plastics and glass. Thus, it will be interesting to see

what form future environmental innovations take. As there has been an emphasis on the use of water there may be more recycling innovations regarding water usage in the home. This can mean more households using rainwater for showering and other essential activities. Many houses have solar power so it will be intriguing to see how this kind of power is transformed into other energy sources.

Ethnic Studies

Many new food innovations are ethnic products that are popular in one country then exported to another country. For example, bubble tea is a drink that was popular in Asia but then introduced into other country markets. The same happened with other drinks such as peach tea, iced tea and coffee. Therefore, it will be interesting to think about what future innovations might be related to ethnicity. Frugal innovation is another innovation that has increased in popularity due to people in developing countries wanting innovation but not being able to afford it. As a result, frugal forms of innovation in which the product is made in a cheaper way have become more commonplace.

Finance

There have been many innovations that have taken place in the last decade most of which relate to the fintech industry. This includes new payment systems such as Afterpay becoming popular in the marketplace. In addition, crowdfunding websites like Kickstarter and Kiva have changed the way people access funds. This means there has been a revolution in the financial technology industry regarding the loaning and borrowing of money. Future innovation trends are also likely to involve mobile commerce and electronic commerce. Banks have reduced the number of ATMs they have so consumers are changing the way they bank. As online banking is becoming the dominant way to bank it will be interesting to see what new innovations take place in the next decade. There is some talk about the use of physical money due to the COVID-19 pandemic requiring cashless transactions. Therefore, there could be new payment systems like PayPal being introduced into the marketplace.

Gender

There has been increased emphasis on gender in innovative product development. This is evident in sports wear specifically catering to females by offering different sizes and types of materials. Ath-leisure is a new type of clothing that was made popular during the COVID-19 crisis with more people working from home. This has

then led to other clothing innovations particularly around suit pants that are designed like tracksuit pants. In addition, fitness technology such as wearable devices have become popular. Thus, it will be interesting in the future to see whether innovations are unisex meaning designed for both sexes or for females or males.

History

The history of innovation means that new products typically develop after there has been substantial change in the global economy. Most recently there was a change to digital communication and payment methods due to the COVID-19 crisis. This was a historical event as consumers had to shop online in many cases as physical stores were not open. Thus, the next historical events that influence innovative product and service development should be forecasted. This will help organisations plan for likely changes and to introduce new marketing methods into their communication practices.

Information Systems

There have been rapid advances over the past couple of years with the use of digital technology practices. Zoom, Facetime and other online video communication devices have gained in popularity. This means there are numerous innovations that will take place in the next decade that will influence organisational effectiveness. It will be interesting to see what they are because a lot of future information technology innovations are at the moment unknown. Possible future innovations relate to digitalization and the increased reliance on the internet-of-things. Thus, interconnected devices will grow in popularity.

Management

Future innovation management practices will mostly likely utilise project management techniques in order to map the innovation process more efficiently. As innovation is at the forefront of the competitiveness of many businesses and industries it is important that new efficiency methods are found. This can take into account innovation that occurs at different levels of an organisation. Often innovation requires a top-down management approach but due to the increased reliance on partnerships it may be better to have a stakeholder approach to how innovation is managed.

Marketing

There has been a change in marketing practices to the use of social media and other online technology. This has changed the way communications are targeted to certain people. In the past there was a tendency to utilise general marketing methods that could not differentiate between different socio-economic groups. Online marketing has changed this as there is now a way to tell who has read a marketing message, where they live and at what time of day they read it. This means the link between marketing and outcomes can be evaluated. In the future the way marketing is done will continue to be innovative based on the new technologies that become available.

Political Science

Government regulations can restrict or encourage innovation in organisations. Regions around the world pride themselves on their innovation policies and commonly market examples of specific organisations that have succeeded based on these policies. Therefore, in the future it is likely that there will be a continued interest in the politics around innovation in terms of what kind of incentives are used to encourage this activity.

Project Management

Project management is a relatively new field related to innovation management. It is used to plan innovation in a way that makes sense to an organisation. For this reason, it is important to use and facilitates better interaction with different parts of an organisation. In the past innovation tended to be done in an adhoc manner without any deliberate thought. This has changed with the realization that innovation should be planned and developed in the right way if possible. Therefore, in the future more innovation will be mapped in a way in order to pinpoint what is needed at each stage of development. This will help organisations progress with their innovative ideas.

Psychology

Innovation is an action that organisations need to do in order to stay competitive. This means it is a behaviour that should be developed and cultivated in society. Thus, it is linked to psychology in terms of understanding how people behave in certain situations. The psychology means that it can be studied and then practiced in different ways. In the future more organisations will focus on how employees and stakeholders can develop an innovation mindset.

Religion

There has been an increased interest in how religion might relate to innovation. This is due to the ethical and moral values incorporated within religious beliefs being embedded in products and services. This means certain types of food that comply with religious beliefs are being introduced into the marketplace. In addition, some religious institutions have been making food because it is unique to their region. Thus, in the future it will be interesting to see how religion and innovation converge in the marketplace.

Rural

More consumers are interested in how and where a food is made and produced. This has led to more labelling of products so that consumers can make buying decisions based on this information. Organic food produce has increased due to more people being interested in whether chemicals have been used to produce food. Therefore, there has been innovations regarding the labelling of food. In addition, farmers markets and direct from farm capabilities have increased in significance. Thus, future innovations are likely to be based on sustainability and environmental initiatives.

Sociology

The way innovations are made is based on cultural considerations. This means future innovation management should take into account the historical and cultural conditions of an innovation. It may or may not be important depending on the context around the production of the innovation. In addition, due to the increased emphasis on innovation ecosystems more interest is likely to be applied to how innovation progresses based on social need.

Sports Management

In the past decade there has been an increased usage of technology to make decisions in sport (Ratten & Miragaia, 2020). This includes goal line technology in football and tennis to determine where the ball goes on the field. There has also been increased usages of digital technology to watch sport such as real time games. Thus, how and where people watch sport has changed dramatically. Drone technology has made it easier to watch sport events. There may be new materials in which sport products and clothes are made from that revolutionise the fashion industry. Alternatively, the

increased technology innovations may make it possible to watch sport games from different player perspectives. Therefore, it will be interesting to see what will happen regarding sport innovation in the future.

Tourism

The time it takes to fly to different parts of the world has substantially decreased over the last fifty years. This has made it easier for people to travel. In addition, self-service technology at airports and hotels has changed the way people travel (Moreira et al., 2019). This has increased the customisation of services. In addition, the ageing population has meant more people now travel for leisure reasons. Due to the COVID-19 pandemic there may be new innovations introduced in order to cater for new trends such as social distancing.

Classroom Activity

In groups of 4–5 people draw a picture of some innovation trends. Keep an open mind and draw what comes to mind in terms of future innovative ideas.

Organisation Example: Play-Doh (For more information please see <https://www.smithsonianmag.com/innovation/accidental-invention-play-doh-180973527/>)

Play-doh is a children's toy that can be used to make different things. Initially it was a spinoff of a putty used to remove soot from wallpaper. Kutol Products was the world's largest wallpaper cleaner manufacturer that had its core product as a pliable material used to remove soot from walls. As more houses converted to electric heating the product's demand decreased. So a new idea was used to use the product as a material for craft projects. The product was then relaunched as Play-Doh due to it being a play thing and like dough used in cooking. Play-Doh is now one of the world's most common children's toys used to make creative moulds. The idea of the product has not changed much since its original launch in the marketplace. Some discussion questions to consider:

1. Why was Play-Doh an accidental innovation?
2. What is the role of the company's name in its success?
3. What kind of new products could be developed that are related to Play-Doh?

In Class Debate Question

In class divide the class into groups who agree or disagree with the following statement. As part of the debate, research why you agree or disagree and provide reasons for this choice. You should also give detailed organisational examples that support your reasoning.

- The most important innovation trends will relate to mobile and electronic commerce.

Internet Exercise

Research online what you consider the most important innovation trends for the next 10, 20 and 100 years.

Lessons Learnt

- The main trends regarding innovation involve the use of artificial intelligence.
- New innovations are occurring on a daily, weekly and yearly basis.
- Organisations need to plan for how they will implement future innovations.

Discussion Questions

1. What do you think will be the most important innovation in the next decade?
2. How do you think mobile commerce platforms will emerge in the future?
3. What kind of social innovations will be introduced into society in the future?
4. What can organisations do now to position themselves better in terms of new innovations?
5. How can organisations try to predict future innovation trends?

Learning Outcomes

- The most relevant innovation trends are industry, market and geographically based.
- Organisations can be innovative in many different ways including through process, product, service and technology change.
- Innovation is about change so in the future we can guess but not definitely predict what will be innovative.

- To recognise innovation trends, organisations need to continually learn and gain access to new knowledge.
- To stay innovative, organisations need to have systems in place to cope with change.

Conclusion

It will be interesting to see what future innovations develop in society. In the past decade we have seen many different types of innovation occur many of which emphasise digital transformation. This means there has been an emphasis on digitalization in business processes that facilitates more engagement with consumers. Future innovations from a variety of perspectives were discussed in this chapter with the goal of keeping an open mind as to possible new forms of innovation.

Multiple Choice Questions

1. Dr. Martens makes what kind of product?
 - (a) swimming pools
 - (b) chairs
 - (c) shoes
 - (d) tables
2. Dr. Klaus Maertens who started Dr. Martens show company began the company with what other person?
 - (a) Dr. Herbert Funk
 - (b) Bill Gates
 - (c) Steve Jobs
 - (d) Elon Musk
3. In what year did Dr. Martens begin a major revitalisation process?
 - (a) 1910
 - (b) 1900
 - (c) 2019
 - (d) 2000
4. What year did Karl Birkenstock publish the book 'Birkenstock foot primer'?
 - (a) 1983
 - (b) 1900
 - (c) 1800
 - (d) 2000

5. What year did Birkenstock begin to focus more on licensing their name to increase their business?
- (a) 2014
 - (b) 1900
 - (c) 1920
 - (d) 2021

Answers: 1. (c), 2. (a), 3. (d), 4. (a), 5. (a).

References

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- Ratten, V., & Miragaia, D. (2020). Entrepreneurial passion amongst female athletes. *Journal of Small Business & Entrepreneurship*, 32(1), 59–77.