

Economic Trends and Sustainable Environmental Assessment



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Economic Trends and Sustainable Environmental Assessment

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Preface

The world economic outlook over the past years outlines alarming statistics in terms of macroeconomic indices such as high inflation, soaring unemployment rate and increased inequality, and a most obvious slowdown in economic activities due to global pandemic COVID-19, alongside other country-specific economic turmoil. These economic trends come with inherent implications for the world economy given increasing globalization. From an environmental perspective, there is also a connection between the economy and energy consumption as has been highlighted through the text. Thus, there is a dire need to present a holistic compilation of economic agents and their adverse effects, especially as they relate to countries and regions of the world.

This book, *Economic Trends and Sustainable Environmental Assessment*, is meant to serve as a guide for academics, graduate students, PhD candidates, researchers, and government administrators. The reason being that it outlines economic trends and sustainable environmental assessment issues in contemporary times that encompass macro-economic issues and their spillover effect on developing, transition, and developed economies. *Economic Trends and Sustainable Environmental Assessment* also considers one of the contemporary issues outlined by the United Nations Development Goals—specifically, UNSDG 8, which highlights sustainable and decent work and UNSDG 13, which focuses on climate action. [Editor Note: please rephrase the explanation on UNSDG 8 and UNSDG 13 to make them clearer. What is meant by “decent work”? How does UNSDG focus on climate action?]

The book is divided into four sections: ‘Technology and Innovation’, ‘Energy’, ‘Environment’, and ‘Economy’). The text contains seventeen chapters that outline trends, assessments, and interlinkages among the mentioned sections. Specifically, the chapters cover the impact of economic trends and their impact on the environment across diverse regions. They explore the need for energy diversification and clean or alternative energy source development to ensure a sustainable environment and sustainable development, especially from the perspectives of clean technology and innovation. Additionally, the current book also uses mathematical and econometrics approaches in several chapters to provide specific insights into the topic. Thus, with a blend of a comprehensive quantitative (econometric) approach and mix-methods application to the subject, this book provides ample insights to the target audience such as graduate students, PhD students, energy and environmental specialist, macroeconomic consultant, and government administrators, to name a few.

To further give motivation to our targeted audience, it worth stating that this book compilation was carefully chosen by experienced editors of the book with cumulative experience of almost a decade that informed the selection of elite top-tier scholars to contribute to this text. To this end, we make the claim that this book is timely for the target audience, and much more so for policymakers. Lastly, if the reader aspires to learn about a blueprint for cutting-edge aspects of technology and innovation, energy, environment, and the economy, we assure you that *Economic Trends and Sustainable Environmental Assessment* will surely help.

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Technology & Innovation



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Chapter 1

Innovation Diffusion and Technology Acceptance Theory

Emmanuel Akaiso

1. Introduction

Innovation can be defined as the transformation of ideas, goals, visions, and dreams of invention into valuable goods and services for people to exchange for an amount of money. Something everyone on earth must experience is changing, and many people are too afraid to experience this. As a result, they never move ahead in life because they have allowed themselves to be captives of fear, allowing themselves to be unable to alter their circumstances. After the difficult experience of the past twenty-four months due to COVID-19, the eyes of everyone have been opened to how important change, adaptability, and flexibility are. Looking back, we can see that change is particularly important for everyone. That is exactly where innovation comes in (Stenberg 2016). To paraphrase Steve Jobs, innovation differentiates a leader from a follower.

Furthermore, innovation is also defined as bringing in new ideas to modify something that is already in place to make it better, more unique, trendier, and more useful to the present circumstances of the customer (Cui et al. 2011). A study by Kogabayev and Maziliauskas (2017) explains the importance of innovation for the following reasons:

- To make us prepared and flexible when changes occur at distinct stages of our lives.
- To provide relatable solutions and answers to the problems customers are facing.
- To enhance growth in all business areas.
- To give businesses higher advantage ahead of their competitors.
- To help businesses make beneficial use of innovative technologies as they arrive.

1.1 Diffusion

In science, diffusion is defined as the movement of gaseous particles from a region of higher concentration to a region of lower concentration till the gaseous particles saturate the entire region. Relating this definition to marketing, diffusion in marketing is defined as the movement of marketing practices through a social space or social culture till the marketing practices saturate that social space (Scott and McGuire 2017).

1.1.1 Business model innovation

Rogério et al. (2017) defines business model innovation (BMI) as a new flexible setup that consists of both internal and external aspects of an organizations leading to a competitive advantage where value creation and value delivery are achieved. *“Business model innovation is the art of changing a company or organization’s structures so as to serve a more specific value and critical thinking skills to customers to have a lasting competitive advantage.”* BMI occurs when new ways of organizing businesses are put in place to maximize profit, thereby creating great customer value (Rogério et al. 2017).

There are diverse types of business model innovation, and they are summarized in Figure 1 (Teece 2010).

Three distinct types of business model innovation have been identified

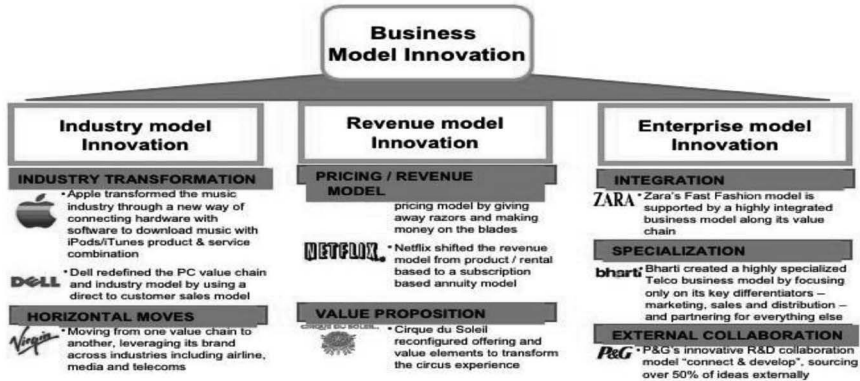


Figure 1: Explains business model innovation.

A remarkably interesting BMI story that can makes us further understand how BMI works is the story of Don Corning explained by Chesbrough (2010).

A chemical company named Dow Corning is a respectable supplier of silicone products for a substantial number of industries and businesses. The model of business with which they operated involved selling goods with huge consulting services and high gap. Despite this, the sale of some goods was redundant due to how the customers commonized the goods. Dow Corning found out that the growth of their business would only be further possible by twitching the business model and analyzing the cause of the redundant sales; the result of the analyzes turned out to be that some

product buyers needed no support (no consulting service after the first consulting service they got) as they were seeking to purchase huge amounts of the goods at a very affordable price.

After finding this out, Dow Corning created a new business model to ride on the previous business model they have been using before (adding a cost-based business model to the previously existing value-based business model); which was to give products to the general market at a very affordable price even though there are no extra services attached to it. The establishment of this new business concept was done through a new Xia meter brand that offers affordable sales through internet services. This model was the exact opposite of the initial business model, but it worked, and the sales went up again (Dorin 2018).

1.1.2 Organizational innovation

Organizational innovation is the innovation that involves the use of interactive innovation, relational innovation, and organizational and technological innovation to bring together people who have unique skills, resources, and talents to achieve maximum success. *“Organizational innovation occurs when an organization makes use of new ways, new insight, new approaches, new process, new ideas, new opportunities to change the way the organization operates thereby achieving much success”* (Demircioglu 2016).

According to Da Silva and Silva Cirani (2020) organization innovation can be categorized into three aspects: (a) **organization structure** explains the structure put in place by the organization for their value creation and growth process, (b) **organization analysis** involves the constant analysis of the organization to check to see the growth process and analyze how well the company is doing and to see if the company needs to make any adjustments, and (c) **organizational change** is how adjustments or changes are made in an organization to increase the value creation and maximize profit through customer satisfaction (Steiber and Alänge 2015).

The company Carrier has a wonderful narrative. The consulting engineer at Sackett and Wilhelm's, Walter Timmis, tried solving the challenge the company faced with the printing machine which could produce multiple colors. The problem resulted from the fact that moisture affected the ink used for the printing and made it not to last long on the paper that was being printed upon, leading to reduction in the quality of multicolored materials produced, wastage of materials used, and loss in the productivity of the company in 1902. Walter Timmis then visited New York to see the sales manager of Buffalo Forge to ask for help and collaboration on the way forward for them to solve the problems they were going through at that moment. The sales manager advised Timmis on how the ink could be preserved even in a moist environment. So, Timmis started conducting research strategies to see if they could still maintain a moist monitored environment for the exact thing, they needed to do so that the ink and paper would not mismatch. In 1903, these demands were fulfilled, and the right moist environment was maintained, increasing the company's productivity. This process led to the invention of the new generation air-cooling systems (Cunha and Verhallen 1998).

1.1.3 Process innovation

Process innovation occurs when there is the establishment of new ways and new methods for production and service delivery to be done. This includes significant improvements in technique, equipment, and/or software. Process innovation strategies are usually constructed of capabilities generated from access to and recombination of external sources of knowledge (embodied knowledge, industry sources, and so on), as well as the innovation strategies to augment and reinforce such creativity skills (Cristina Scafuto et al. 2018).

Some aspects of process innovation involve using technology and production machines that help in designing products and constructing software, sales, and maintenance appliances, supply system and product delivery set ups as well as uplifting the accounting credibility and maximizing customer experiences (Dorin 2018). While your customers will see and value product innovation, a process change will probably be observed and valued solely by your employees. Changes in processes on average lower production costs more often than they enhance revenue. Therefore, process innovation is especially important in the business sector of the world we live in today (Huang and Rice 2012).

One interesting process innovation story is that of Differential, which had just completed a mobile sales dashboard for Grupo Bimbo. The bakery has sixty-five manufacturing sites and 2.5 million sales locations spread throughout 22 countries and three continents. As a result, those who were part of the managerial teams tended to meet their assistants all around the globe, online. The dashboards, which are mobile, enabled the managerial teams to make use of the records for the sales in all the country, provinces, and offices connected to them, eliminating doubts in the sale records and helping in time management (Widya-Hasuti et al. 2018).

1.2 Aims and objectives of this research

- a) To understand what diffusion of business ideas is about.
- b) To find out the various theoretical concepts that are used in the diffusion of goods and services.
- c) To get deep insights into diffusion innovation theory and the technology acceptance model.
- d) Analyzing and investigating the advantages, disadvantages, and limitations of each of the models.
- e) Recommend the best model to be used by businesses.

2. Methodology

This paper is focused on analyzing theoretical models used in investigating the perspective of businesses in making their new goods or products to be diffused across a group of people and to be accepted by these people. For this research to be successful, this research focused on secondary sources, which includes research

literature and theoretical published literature. The published literature was analyzed for the research models used to adopt innovations in businesses and to finally identify the advantages and disadvantages of the models, thereby showcasing which is more preferable or how they can both be combined to produce greatness in the business world.

3. Diffusion Innovation Theory

Diffusion innovation theory is the theory that explains how quickly a new idea or innovation spreads across a social space. The term diffusion is a marketing phenomenon that takes place among people in a social space in reaction to a new idea, new product, new item, or new way of life that has been introduced to them so as to work on their previously used methods or to improve how they do certain things in a better way (Dearing 2014). Making diffusion innovation theory (DIT) a reality has to be done through different strategic channels, that is, the ways through which the new innovation can be passed across through the social space from one person to another. There is a very important variable in DIT which is the time of adoption; we should note early enough that just because a new idea can be introduced does not necessarily mean it would be implemented by the people it was introduced to, so the time of adoption helps to explain how long it would take for the new idea to be implemented by people living in a social space or culture (Peres et al. 2009).

There can be an assessment of diffusion amongst people who are leaders in government positions, health organizations, and large tightly knitted communities in different cities and states across the globe. Figure 2 properly explains the correlations between the time of adoption and the properties of diffusion in unique situations, which also includes when a new idea is introduced, and also when a new idea does not diffuse due to certain factors or reasons applicable (Syahadiyanti and Subriadi 2018).

The figure explains how diffusion works in some social spaces. You can see the slow diffusion rate at the beginning because the idea was just introduced and people are getting to know what the idea is, After some time you see an increasing time of adoption on the graph, which means diffusion is increasing at this point. Next you see a reduction in the rate of diffusion, and this can be due to varied factors that affected the rate of diffusion in the social space (Huang et al. 2020).

So, an S-shaped graph is produced, but this is not always the case for all diffusion processes. There are cases where the time of adoption of certain ideas is strategically shorter, especially the spread of a new policy across a social space. The reason for the short adoption time is due to strategic measures taken by the government by creating an urgent national concern, which leads to rapid attention to the policy to be implemented and this makes people in that social space fully aware of the policy and adopt it quicker than expected because they have to be convinced to perceive that the new innovation would have a positive effect on them and their social environment at large (Weidman et al. 2018).

Looking at Figure 2 you will recognize that there are some parts of diffusion that actually goes uninvestigated because there could be other competing innovations as well that are more important, thereby hindering a new idea from being implemented

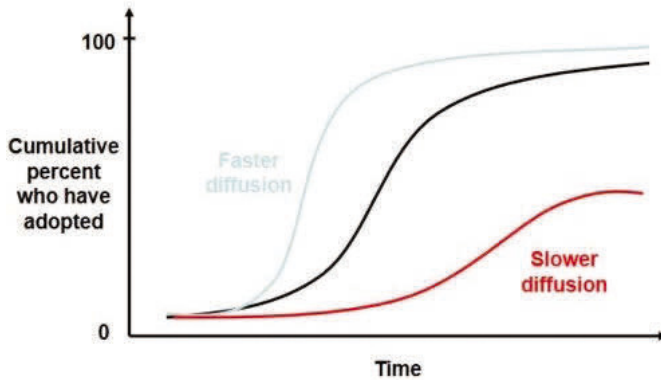


Figure 2: The context of diffusion. Source: (Dearing and Cox 2018).

or conducted (Peixoto et al. 2017). It is also worthy of note that failures of innovation diffusions also take place, and this proves that an innovation idea introduced to a social space may be adopted or rejected and the result of the diffusion is dependent on potential adopters (people that adopt the new innovations or people that allow the innovations to be adopted).

In the diffusion innovation theory, there is a resulting factor called acceleration and this occurs when a new innovation is quickly accepted or adopted by a social space because prominent members of that social space have seen the good in that innovation and they use their influence to pass that innovation across to other people in that social space. So, from tax policies to child welfare down to tobacco use reduction and many other policies introduced into the society, influential members of the society can help impact how quickly the new idea is adopted. Also, when influential members of society do not adopt an innovation or help to influence a policy adoption, this does not necessarily change the diffusion system as the diffusion theory is either adopted or rejected.

Over the ages, diffusion takes place across different social spaces. Innovation spreads through different spheres of life and helps to change people, policies, and laws. It helps achieve the best probable future for every society.

There are varied factors that affects the diffusion of latest ideas and some of them are:

- a) **Great advantage:** Persuading the target group that a new idea or innovation is much better than the idea or innovation currently used by people in certain social space. If they can see the advantage in using the newly proposed idea and the benefits and also how the new idea can create a better society for them to live in, then there is a huge probability for the new innovation or idea to be adopted and implemented (Tolba and Mourad 2018).
- b) **Deep connection:** The ability for a new idea or innovation to be connected/compactible with finding solutions to the problems or when a new idea/innovation easily solves the problems people in a certain social space are facing without changing their personal values makes it unproblematic for them to implement the new idea (Tolba and Mourad 2018).

- c) **Perceived use of ease:** Can people in a social space easily use the new idea and innovation introduced to them? Do they easily understand how beneficial the new idea would be to them and can it be easily implemented? (Zhang et al. 2015).
- d) **Probation:** Can the new idea be evaluated under probation basis before it has been implemented so people can see, analyze, and decide for themselves if they want to use certain innovations and ideas (Weigel et al. 2014).
- e) **Analytical result:** If the people that should implement a new idea or innovation can see a practical example of a test run and they can properly observe it for themselves to see the likely results they will get if they implement the innovation, there is a high probability that they will accept the idea (Khan et al. 2016).

One especially key factor to consider is that the success of the diffusion innovation theory is partly reliant on the modes and channels of communications because you need to inform and educate the people who need the ideas so they can adopt it. This process of communication could be through different channels, influential individuals, groups, and organizations, etc. Also, do not forget the value of time in the acceptance and the diffusion of an idea or an innovation.

3.1 Why or how do people adopt new ideas or innovations

The needs of people and the reasons why people do things are uniquely different from one another based on their acceptability of innovative ideas. Most times the first set of people to accept and adopt a new idea did so out of personal excitement without societal constraints; they are also called opinion leaders. The second set of people (early majority) adopt innovative ideas/innovations after analyzing and checking the advantages and disadvantages of the new idea, if the advantages outweigh the disadvantages, they then implement it. The last set of people to adopt an idea (late majority) do so because they feel societal pressure and they do so out of compulsion. The best set of adopters is the second set, where the new idea has been analyzed and investigated to be sure of its impact on society before it is adopted and implemented. The laggards are also like the innovators in that they are not under any societal constraints, but they take their time before adopting a new idea/innovation (Stenberg n.d.-b).

Dissemination occurs when a new idea/innovation is distributed to other members of the social space, so they are informed and updated as regards the new idea they need to implement. New innovations and ideas can be transmitted through special media channels, which include social media, mass gatherings, newspapers, etc., thereby making the information about the new idea readily available. So, every individual or industry that comes up with a new idea or innovation for the betterment of the lives of people within that social space needs to come up with mind-blowing ideas on how that particular idea can spread across a social space to the targeted audience that needs to be informed as regards the new innovation (Kee 2017).

After dissemination comes *implementation*. Implementation is when the new idea/innovation received is used. When a new idea has been disseminated to a certain group of people, the next question is whether the idea should be accepted/adopted or

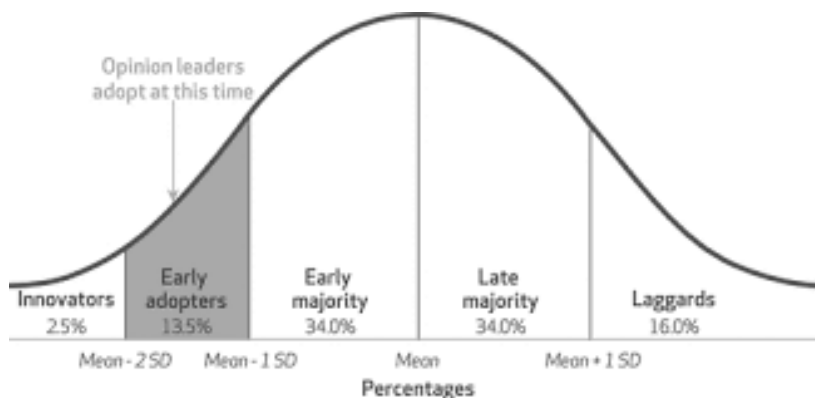


Figure 3: The graph explaining the innovation of the adopters with respect to the time of adoption (Dearing 2014, Dibra 2015).

rejected. Once the idea gets adopted, then it gets implemented, that is, the idea gets put to work. An *implementer* is an individual who receives a new idea and changes their way of life to adopt this new innovation. Most times the implementers may not necessarily be the chooser of the implementation, but the implementer has been influenced to use the new innovation presented (Owen et al. 2006).

Fidelity is the degree to which a new idea or innovation is implemented based on the way the originator of the idea planned it to be. Fidelity is usually determined by measuring how well people would accept the idea on a smaller scale and then extending it to the larger audience so that the progress can be properly tracked (Luiz Dias da Silva and Da 2017). The term fidelity could come exceedingly early before dissemination and implementation, and it could also be done after dissemination and implementation. Fidelity helps the business analyst know how individuals would react to innovative ideas and innovations. Fidelity in the diffusion process can be affected by two factors: reinvention and adaptation (Cam and Tran 2017). *Reinvention* is defined as the modifications the innovation originator makes to the innovation so it can be easily adopted and implemented by people in a certain social space. So, when an innovation is assessed on a small group of people during the fidelity process, certain results received help modify the innovation itself; that is what reinvention is about. *Adaptation* on the other hand is made by the implementers; they adjust their way of life to fit the new innovations in. They may need to change certain things just to make the innovation work for them based on how they are and where they live. So, in summary, reinvention is made by the innovation originator while adaptation is made by the implementers (Nutley et al. 2002).

Diffusion innovation theory gets implemented really fast if it is extremely easy to understand and implement (see Figure 4). So, every innovator should see the importance of making the new innovations relatable and extremely easy to use. Another factor is when a new innovation rides on a previous innovation or is compatible with a previous innovation; it makes it easier for implementers to use this new innovation as they do not have to throw their previous innovations away since both the old and the new are compatible (Boyle 2010, Dibra 2015).

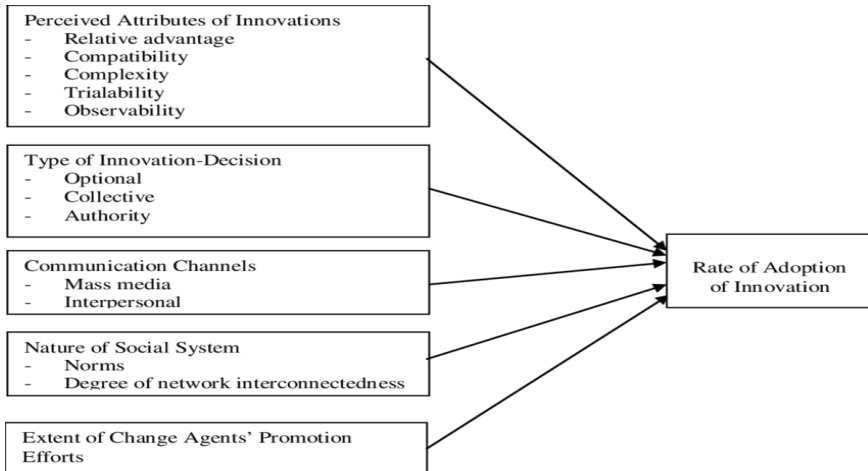


Figure 4: Rogers model on the rate of adoption of innovation (Dibra 2015).

3.2 Advantages of diffusion innovation theory (DIT)

First, the sustainability of DIT is an interesting narrative, and this is especially useful for every marketing practice. Marketing practices need to be sustainable, that is, they can be used for an extended period of time, and they can produce the right intent developed by the original innovators for the exact purposes the innovation was created for. The DIT is a sustainable theory for innovations in tourism, health and other government policies (Sai 2018).

Secondly, diffusion innovation theory involves the spread of innovations. So, the spread of this innovation supersedes the problems attached with a simple cost benefit analysis economic model. This spread analysis can also explain why or how people in certain social spaces adopt an innovation; it helps to provide a psychological and social interpretation as to why people adopt certain innovations. This theory is used in various countries across the globe at macro and micro levels of establishment on all types and sizes of innovations. It also gives a cost/benefit analysis on what it would cost people in a social space who adopt certain innovations (Weidman et al. 2018).

Thirdly, innovation disseminations in the diffusion innovation theory follows a very unpredictable direction. Instead of focusing on an individual's acceptance of a certain innovation, it showcases the innovation as a product of evolution. That is, there is great room for reinvention if the implementers have great issues with implementing the innovation. This is very much applicable in tourism and government policies, where the behavioral response of people to a certain social space is considered and evaluated so that the innovations can undergo innovation changes. An atmosphere for improving innovations increases competition and rejects stagnation. The continuous and constant need for improvements brings about the spread of innovations.

Fourthly, diffusion innovation theory is a well-thought-out theory which has developed and evolved from year to year and has been used in various disciplines, businesses, and areas of life. The DIT research has been assessed by thousands

of researchers and has proven to be an amazing theory useful for the spread of innovations and ideas (Murray 2009, Weidman et al. 2018).

4. Technology Acceptance Model

The technology acceptance model (TAM) is an information systems theory that explains and shows cases how people in different socio-economical spaces accept, adopt, and use technology. Technology acceptance model is a model that describes why and how users accept and use a newly introduced technological model. It also considers the decisions individuals make before they accept certain technologies, considering how useful the technology is to them, and how easy the technology is to be used. TAM relies on two key factors, how useful the technology is, and how easy the technology is to use. TAM is a big and immensely powerful model for determining how different users would accept certain technological models (Deslonde and Becerra 2018).

4.1 Brief history of technology acceptance model (TAM)

TAM was first proposed by Fred Davis in 1985 for the sole aim of finding out the factors that influence the decisions of individuals to use certain technology. These factors include how useful the technology is, the ease of use for the technology, and the attitude of the individual towards the technological model (Surendran 2015).

This is the original model postulated by Davis in 1985 (Chuttur 2017). From Figure 5 above you can see that the actual system usage is dependent on the totality of the user motivation. The user motivation summarizes of how the user thinks the technology would be useful for them, how the user thinks the technology would be easy for them to use, and lastly their entire attitude towards the technology itself. These are enormously powerful factors to consider when using the technology acceptance model according to Fred Davis (Chuttur 2017).

This model in 1989 was later modified to give another model because of the reinvention and the evolving usage. This new modification contained information on

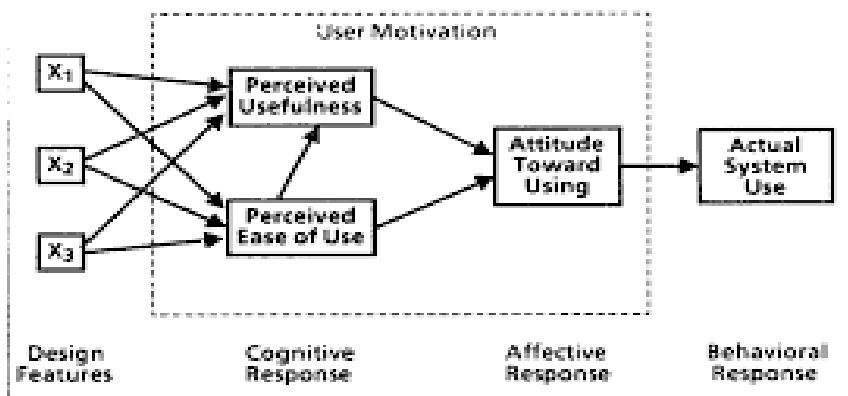


Figure 5: Original TAM proposed by Fred Davis (Chuttur 2017).

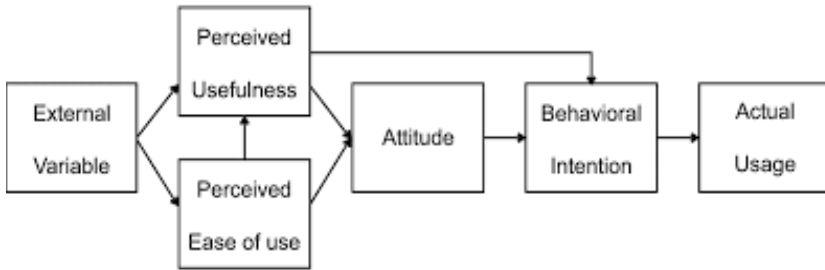


Figure 6: The first modified version of TAM (Chuttur 2017).

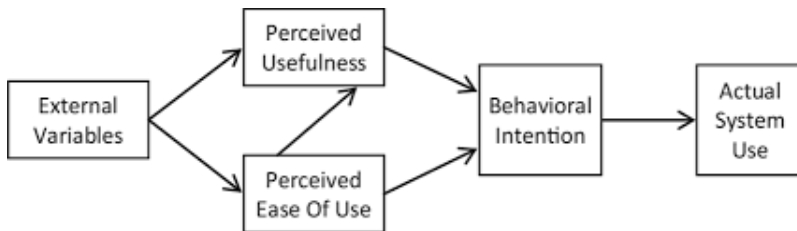


Figure 7: Final modified version of TAM (Chuttur 2017).

external variables as there are variables which are external that affect the adoption of technology.

Looking at Figure 6 and 7, you will see that in Figure 5 attitude is a factor standing on its own but in Figure 7, attitude has been fused together with behavioral intentions to help categorize all the factors affecting the decisions every individual would take before they accept the usage of certain technological models introduced to them. Also, the perceived usefulness and use of ease was seen to have a direct adverse effect on the usage of the technological system so the attitude was merged with the behavioral intention (Jamous et al. 2017).

Perceived use of ease can be described as how easily individuals can use a model. The individuals that the model is introduced to should be able to use the model easily; if they personally perceive, feel, or think that the model would be difficult for them to use, then they would reject the model and not have anything to do with it. That is why it is particularly important for models to be properly thought out and explained to the users before they are given for implementation.

Another interesting point to note here is that perceived ease of use is influenced by two factors called anchors and adjustments (see Figure 8). The anchors describe how well an individual can use the computer to help them adopt technology, the general beliefs that the individual has about computers while adjustments describe the enjoyment that comes from using the technology model in particular.

Figure 9 above explains how useful the individual finds the TAM model to be. The outlook of the model, is it beautiful and acceptable to the eyes? is it relevant to their betterment? Is the model producing high quality? Are the end results amazing? This and many more aspects factor individual look at before considering if a technology is useful or not.

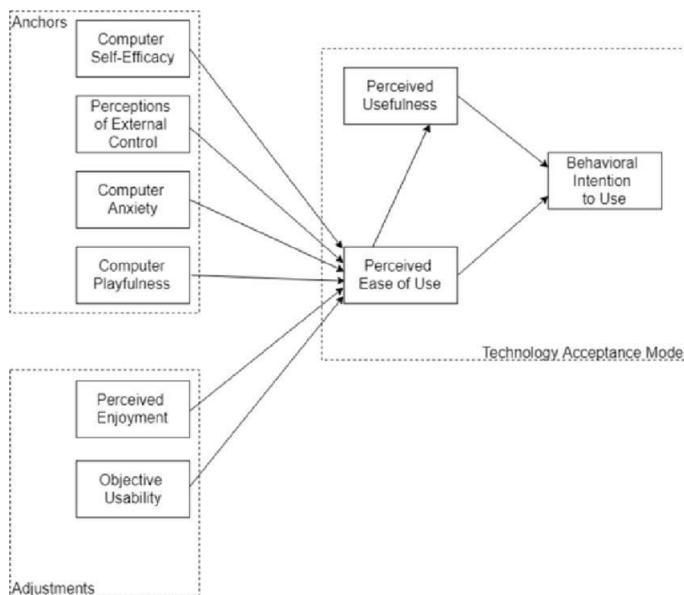


Figure 8: A summary of the factors that influence ease of use (Chuttur 2017).

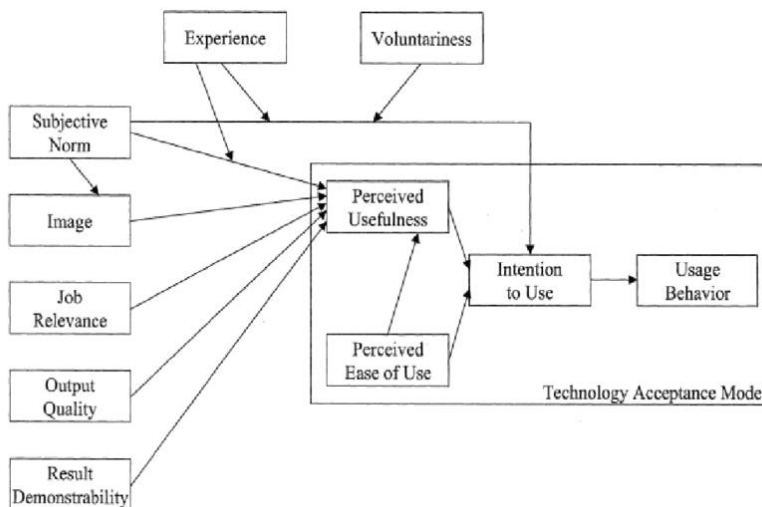


Figure 9: TAM 2 (Chuttur 2017).

4.2 Advantages of TAM

- TAM is a relatively simple model and can be implemented easily, thereby making this model more useful and beautiful to use, compared to the theory of reasoned action or the theory of planned behavior.
- TAM is simpler to use and less expensive to use because the methodology used in this model are direct and specifically related variables.

- c) All previously done research points towards the fact that TAM is a verified model to predict the reasons why an individual would want to use certain technological models (Olushola et al. 2017).

4.3 Disadvantage of TAM

- a) The summarized disadvantage of the TAM is the fact that TAM only measure usefulness of a model and the ease of using a model but cannot explain the real reasons behind an individual deciding to use a particular model (Marikyan 2016).
- b) Also, the environmental settings for most TAM research were only done in voluntary environments and not mandatory or tough environments to measure distinct factors that enable TAM (Ajibade 2018).

4.4 Criticisms of TAM

According to Chitungo and Munongo (2013), the criticism of TAM is categorized into three parts:

- a) The kind of methods used for the analysis of TAM.

It has been reported that most data used for the analysis of the TAM model were real self-reported data, which has not been subjected to further confirmation before using the TAM model, as it is known self-reported data are subjective and easily manipulated. Also, most research made use of students for their analysis, and this did not give a complete representative of all spheres of life so we can have a balanced model. Lastly, the TAM model only explained the voluntary use of the model and did not include explanations for the mandatory use.

- b) The indicators and relationships existing in TAM.

There are some other factors that were not put into consideration in TAM. The original TAM was only analyzed in the voluntary environment and not done under mandatory conditions, as analysis under mandatory conditions produced other shocking variables as well as leading us to see that cognitive and affective aspects also plays a role in the perceived ease of use and perceived usefulness.

- c) The foundational deep-rooted values of TAM.

TAM did not take into consideration the fact that an individual may decide to use a particular model and then stop using that model or uses an entirely different model. This could be maybe after the individual has reflected on their previous decision (Al-Rahmi et al. 2019).

5. Conclusion

In this research work both models were properly analyzed to showcase that every business needs to understand how their business ideas can be diffused across certain socioeconomic zones.

Diffusion innovation theory (DIT) can be affected by how easy such technology is, the deep connection people have with the technology, and also the analytical results people get when they use the technology. There are also different adopters that can determine how fast certain technology will diffuse.

The technology acceptance model (TAM) is affected by how useful people find the technology to be, how easy the technology is, the attitude of people towards the technology, and also the entire acceptance behavioral response. The limitation of the technology acceptance model is that the data used was self-reported data, which is subjective and can be manipulated. It also does not take into consideration that an individual can decide to stop using certain models and it does not take into consideration why this happens.

This diffusion innovation theory and technology acceptance model can be operationalized to increase the speed at which an idea is adopted and also enlarge the target market for any idea or policy.

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