

USE OF ICT IN TEACHING INTRODUCTORY MARKETING PRINCIPLES AT TERTIARY LEVEL IN MALAYSIA: TEACHING CONVENIENCE, LEARNING ENHANCEMENT AND WEAK LEARNER SUPPORT

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ABSTRACT

While use of ICT has been almost universally seen as a useful instrument of teaching any subject at any levels of education, principles of marketing as a university course, has particular need for this due to its practical nature, the demands of its forward linkage industry, and the techno-friendly habits of the young adult learners of today. Marketing education at tertiary level has been criticized by marketing academic and practitioners for inadequately preparing students for real world marketing practices and research. This article addresses the problem from pedagogical aid perspective and focuses on the use of ICT in teaching principles of marketing on three major grounds: learning enhancement, teaching convenience and weak learner support. Based on update literature review, the author's personal teaching experience of the subject and case-experiments at a Malaysian University College, the article suggests the extensive and purposeful use of ICT tools in teaching principles of marketing.

Key Words: ICT, Principles of Marketing, Teaching Marketing, Tertiary Education

1. Introduction

Business Schools or Colleges of Business in general and marketing education in particular have been criticized by both Marketing Communications expertise, Marketing Academic and Practitioners for inadequately preparing marketing students for real world marketing practices and research. 'Principles of Marketing' (or 'Marketing Principles' taken as synonymous in this article) is a preparatory required business course (for all Business majors) that should provide the students with necessary conceptual skills and knowledge of the subject to succeed both academically and professionally (Kotler, 2003). In tracking our marketing graduating seniors over the years, about 7% of the Marketing Majors often get into management positions in industry or in public organizations where they are expected to make operational and strategic marketing decisions for the organizations (Elimimian, Elliard, & Khayota, 2006). Understanding Principles of Marketing was ranked one of the most important learning skills by corporate executives (Kotler, 2003).

In this techno age, with countless techno-users especially among the youth, an effective teaching-learning of marketing principles undoubtedly needs the use of various ICT³ tools. The use of ICT can complement with the contents of principles of marketing such as: defining marketing, formulating strategic planning, analyzing the consumer behavior, developing the marketing mix or communication mix, conducting market research, evaluating the global marketing strategies and so on. Due to their nature, it is quite obvious that the visual, technological, and practical understanding is really necessary for these contents to ensure the learners' future application of them in real life marketing. It is needless to say that most of tertiary level learners in Malaysia definitely have minimum exposure to ICT for personal use such as smartphone, laptop, tablets etc. Integrating those regular devices with marketing principles not only enhances the delivery of the course but also can create enthusiasm for learning, open multiple paths of learning, and maximize the learning outcomes of this module.

2. Teaching marketing: three grounds of consideration

Marketing is a practical subject and at the same time an academic discipline involving various factors in individuals, the society and the interactions of both. As a result, marketing instruction should avoid protectionism or micro-teaching and embrace a multidisciplinary approach like in other business curriculums (Porter & McKibbin, 1988). Hence combining the multidisciplinary approach and multimodal learning environment can undoubtedly facilitate the tertiary learners' metacognitive⁴ level.

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³ Information and communication technology

⁴ Involving one's awareness about own cognitive/learning processes

When we think about the utility of certain aid or technique in education, we can see it from three different perspectives: learning enhancement, teaching convenience, and weak learner support, considering the learner or learning process, teacher or teaching process, and the required accommodation of those who fall back in understanding the topics. The three angles can conveniently be compared to ICT keywords like input (teaching), output (learning), and troubleshooting (weak learner support). By grounding the whole discussion on these three points, this article elaborates a delivery-reception model to successfully illustrate the use of ICT in teaching Principles of Marketing effectively.

3. Learning enhancement

Nowadays according to Malaysia Education Blueprint 2013-2025, most students in Malaysia have a computer class from their standard one in school. Due to the competitive and outcome based nature of the education system, parents also want their children to grow up with technology. By capitalizing this extensive ICT exposure and knowledge of the young learners, marketing teachers can rightfully integrate the contents of marketing principles with ICT for both delivery and assessment. It will not only enhance the learning process but also accelerate the accomplishment of learning outcomes. The best part is that through the use of ICT it is possible to engage the students even outside the classroom boundaries on the contents of Marketing Principles. Every time the learners use the digital media such as smartphone, television, video, facebook, blogs or games, they mostly unknowingly encounter some situations which are anyhow linked with the contents marketing principles. If the teachers of marketing can successfully utilize these linkages in the course/module inside and outside the class through multiple modes of delivery and assessment and also make students aware and engaged in that, it can undoubtedly create this discipline a synergistic field with high impacts.

3.1. Active learning of marketing

Many Principles of Marketing teachers face student apathy in the classroom. Unlike passive learning which primarily involves in-class lectures, active learning reduces student apathy by enhancing critical thinking and positive attitudes toward the course (Becker and Watts 1995). Active learning encourages interactions between the lecturer and students: an important component of student learning in business courses. It also requires students to apply knowledge that influences learning i.e. increases their metacognition. Active learning approaches can provide students with a better understanding and retention of the material (Smith and Boyer 1996). This is particularly true about the teachers of introductory courses like Principle of Marketing at the outset of the course for the students mostly having no previous disciplinary knowledge about it.

Such active learning is assured and enhanced through the use of synchronous and asynchronous media. Besides From our experiences, we can say that these youngsters do not really enjoy learning though reading from mountains of books in the library sitting at its monotonous silent cells or listening to a tooth breaking hours of lectures and taking notes of every minute in the class. In this regard, ICT centric delivery can be used as an ice breaker for the tertiary level Principle of Marketing course students to open the doors that lead to higher learning and implementation in real life through fun. It will be a shift away from 'scepticism about the use of technologies in education' and 'teacher-centred culture' towards 'technology as aid in learning processes', 'team-work', and a 'learner-centred culture'.

3.2. Constructivist learning of marketing

Active learning also brings in a constructivist learning. Constructivism views instruction as the process of supporting knowledge construction rather than a process of transmitting knowledge. The use of ICT at tertiary level can help that because it results in a move from teacher-centred delivery and transmissive learning to a student-centred learning, which is the main focus of constructivist learning (Vygotsky, 1976). It can make learning environments inquiry-based and problem-centred within authentic settings. (Oliver, 2000). Learning theories espousing student-centred learning, in particular constructivist principles, gain a practical shape. For instance, instead of knowing or memorising the 4P's of Marketing (product, price, place and promotion) generally, if the learners can propose 4P's for the new segments of customers, learning is more successful i.e. Generation Y, which is different from Generation X complements. Such constructivist approach can be enacted only through the use of video case study and other ICT based strategies rather than just distributing limited printed materials in the class.

3.3. Open-source learning

Usually students presume that learning is only confined to a class time within classroom boundaries. This perception is particularly problematic in learning-learning marketing. The use of Partnership and network- Open Educational Resources (OER), online books, journals, articles, email, online test, quiz etc. help the learners to get involved in the activities and discussions even after the class and evaluate and analyse information and concepts of marketing through the online group collaboration, forums, teachers and mutually share the feedbacks as well. It ensures open-source learning.

3.4. Personalized learning

ICT also can enhance personalised learning. Nowadays due to the advancement of technology, most of the students can use their hand phones, tablets, notepad etc. at any time. Even when the students see a billboard while driving, see any commercials while watching world cup or enjoying movies in GSC, they can correlate the contents that they find similar or related to the principles of marketing. This may automatically lead them to further their enquiry using their electric gadgets if they are made aware of their constructive use and conditioned accordingly. Thus ICT can implement a personalized learning for pleasure.

4. Teaching convenience

All the above advantages from learners' perspective are intertwined with teaching and easing for the job of a teacher of Principles of Marketing. ICT has a lot to provide convenience in teaching Principles of Marketing. For instance, the marketing professionals are required to constantly match the cultural diversity, customer demands, market supply, economic indicators, and

market trends locally and globally. They also need to update and contextualize the teaching contents to ultimately achieve the required learning outcomes for the module. Using multimedia for instance, the teachers of marketing can show the video commercials, online newspapers advertisements, market trends for various products locally and internationally from a small class room to a big hall environment with minimal distractions.

5. Weak learner support

In the regular move of a university/college course, there always stands alone a group of learners who cannot keep pace. The use of ICT can also accommodate learners of marketing who fall back in a batch due to their dissimilar or weaker understanding. First of all, it requires creating integrative and evaluative learning environment. Since Principles of Marketing is multidisciplinary in nature, the use of ICT tools such as video case study can channel learning through multiple avenues and provide more space to the weaker learners. Linking or correlating the other familiar disciplines such as general science with marketing principles can help to subside learners' weaknesses in understanding this subject, and this is possible through proper use of ICT.

Secondly, ICT helps in evaluative learning which is useful for the weak learners. ICT-enhanced learning is student-directed, diagnostic, and instantly changeable. Unlike static, text- or print-based educational technologies, ICT-enhanced learning recognizes that there are many different articulations of knowledge. ICT allows learners to explore and discover market trends rather than merely listen and remember. ICT also develops some marketing-specific language skills or ESP⁵ proficiency and general writing skills like spelling, grammar, punctuation, editing and re-drafting (Lewin et al, 2000), all of which are a common concern of weak students.

"It is also confirmed that many students found learning in a technology-enhanced setting more stimulating and much better than in a traditional classroom environment (Pedretti and Mayer-Smith 1998)."

6. Reviewing popular uses of ICT in education

As a matter of fact, some use of ICT already has started in many universities and colleges in Malaysia, which is day by day increasing with the spread of modern technology. In the following, we have discussed two examples of them while establishing their link with teaching marketing and providing suggestions to make them more effective.

6.1. Narration and video versus narration and text

Mayer (2005) tells us that narration and video is much more effective than narration and text. Similarly, narration and video appear to be more effective than narration, video and text. Multimedia applications are more effective when learner's attention is not split. Split attention occurs when the learner is forced to attend to information that is far apart, such as when content is visually far apart on the screen or if it is presented at two separate points in time. When related content is presented together in time visually, learning is more effective; for example, the narration and video about Giant hyper market customers segments will be more effective to the students to generate constructive views instead of only using narration and text.

6.2. Multimedia presentations

Multimedia presentations are more effective when the learner has the ability to interact with the presentation, by slowing it down or by starting and stopping it which is particularly helpful for the weak learners. This pacing can also be achieved by breaking the presentation into segments; shorter segments that allow users to select segments at their own pace work better than longer segments that offer less control (Mayer, 2005). Learning from multimedia presentations is enhanced when the structures for organizing the information are activated. Helping students recall or acquire structures that will help them organize and understand the information can be accomplished in several ways. Students might have encountered any television commercials, roadshows, events, contest information prior entering the class. Now during the class when the teacher will be playing the multimedia video presentations about the communication mix elements, the students can easily recall their memories regarding their past encounters and correlate with the topic and the teacher can slow down or pause or replay the presentations based on the needs of the learners.

More personalized multimedia engages learners more than that which is less personalized (Mayer, 2005). Therefore teachers have the flexibility to adjust the marketing principle presentations for instance using conversational tone of marketers/customers instead of using formal tone to complement the level for the weak learners. Multimedia is most likely to be effective when students are provided with opportunities to apply what they have learned following exposure (Mayer, 2005). The multimedia presentations for instance on how the economic downturn influence the companies to use selling concepts can help the learners to apply redesigned marketing mix package to maintain or enhance the sales for the company.

7. Some effective ICT tools for teaching marketing

There are some innovative use of ICT tools that can help to address the three perspectives, teaching convenience, learning enhancement and weak learners support in teaching Principles of Marketing at tertiary level. Most of them are never or the least used/experimented. Some examples are the use of publicly available learning objects repositories as e.g. MERLOT (Multimedia Educational Resource for Learning and Online Teaching), *clipBlast*, *Utubersity*, *Webinars*, *Coursesites*, Podcasts, Blogs, Digital Video and Photography, *Prezi*, *Animoto*, "Google Across the Curriculum." , Personal Learning Network, *backchanneling*, Best of the Web 2015, and Android Apps for Education. These if fully or partially utilized can ease the delivery of this module up to expected standards irrespective of time and geographical boundaries. First put in a summary table about their usefulness, some major ICT tools that are never or rarely used in Malaysia are briefly explained below in relation to teaching marketing.

⁵ English for Specific Purpose

Table 1: Comparative usefulness of ICT tools for teaching marketing

No.	ICT Tool	Teaching convenience	Learning enhancement	Weak learner support
1	Pearson online	√	√	√
2	Active TextBook	√	√	√
3	Facebook	√	√	√
4	Twitter	√	√	-
5	Webinar	√	√	-
6	Infographics	√	√	√
7	Mobile webpage	√	√	√
8	MARS simulation game	√	√	-
9	Cesim business simulation game	√	√	-
10	Prezi	√	√	√

7.1. Pearson online resources

Pearson publishers have developed online resources to aid the learners and teachers in business management including marketing management. Philip Kotler and Gary Armstrong has created a valuable teaching and learning package in Principles of Marketing 14th edition which includes videos, Mini-Simulations, interactive elements etc. the materials are available for both learners and educators in marketing.

7.1.1. Teaching convenience

The video library of Pearson publishers Principles of Marketing, 14th Edition incorporated 20 exciting segments. All segments are available in the DVD and on mymarketinglab. Teachers can use these video cases such as Meredith, General Mills-GoGurt in the class to show the linkage of the theories such as segmentation, targeting and positioning strategies, brand building strategies. Using video cases the teachers can deliver these marketing contents in lesser time for better understanding.

7.1.2. Learning enhancement

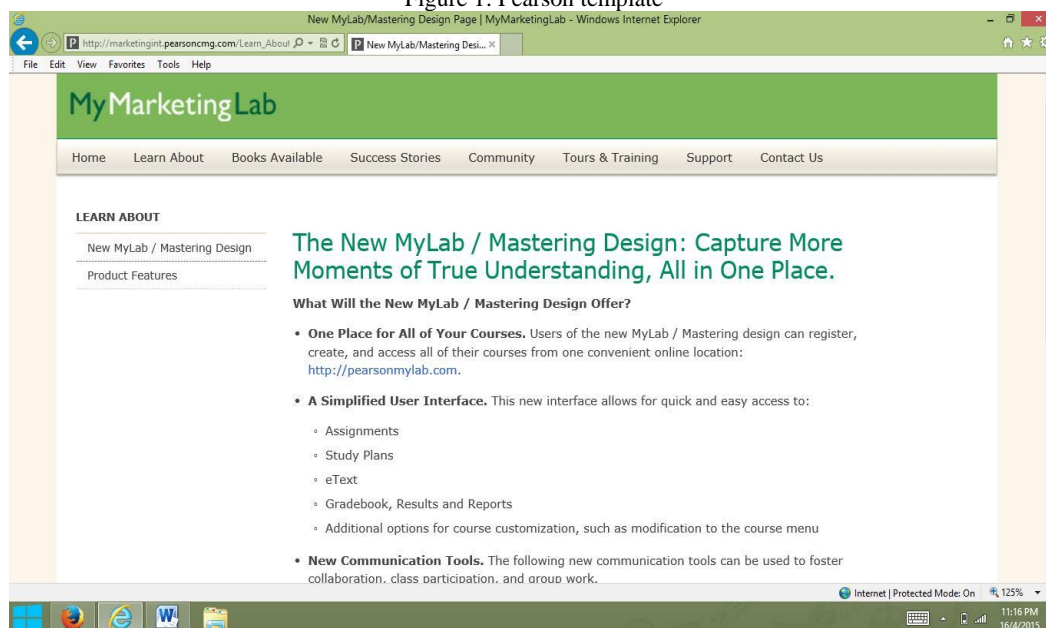
The learners can also register for mymarketinglab⁶ online to test themselves on key concepts and skills, track their own progress through the course, and use personalized study plan activities. The students can also access the Mini-Simulations that can help them to make decisions based on marketing concepts and improvise the learners' constructive thoughts.

7.1.3. Weak learners support

Pearson online marketing sources can also aid the weak learners to enhance their understanding of marketing concepts through the use of interactive elements. Learners can search for specific key words or page numbers with the online e-book, highlight specific sections, enter notes right on the e-book page, print reading assignments with notes for later review or with other materials. Besides the use of video case, on mymarketinglab website the weak learners can integrate their learning with visual images and narrations that can elevate their learning process as well.

⁶ www.pearsonglobaleditions.com/mymarketing_lab

Figure 1: Pearson template



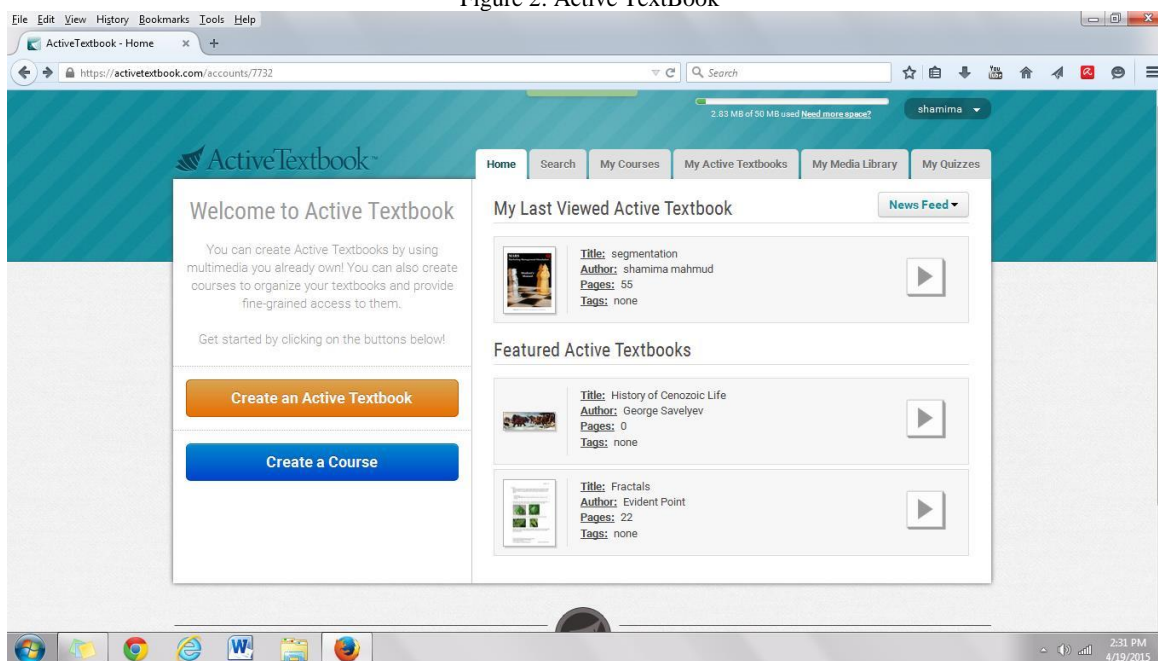
7.2. Active Text Book

Teachers can easily change their PDFs into Multimedia Documents by using this excellent ICT tool for any topics of marketing principles. Active TextBook can help to learn, teach or simply share the documents online with the students.

7.2.1. Teaching convenience:

The teachers can use their PDF material and upload the file into Active Textbook just by a button click. Then they can incorporate easy interactive components such as image, video, audio clips related to the topic. So while discussing the various bases of segmentation in the class the teacher can click on the interactive content, for example geo-demographic segmentation video can easily illustrate the intensity of their combined impact rather than considering any single bases of segmentation. Here simultaneous presentations of lecture and video can help the teachers to deliver the multiple bases of segmentation based on the learners' expectation level faster than the regular methods of teaching. Teachers can import their resources once and reuse them in the future. The teachers can easily collaborate with the students to further clarify the marketing implications of demographic, psychographic, geographic and behavioral bases outside the class time through online discussion and post comment. They can choose the audience beyond the class and publicize their work related to segmentation for the local and international market as a part of OER (Open Educational Resources) so that any learners can use these contents from any locations.

Figure 2: Active TextBook



7.2.2. Learning enhancement:

The use of Active TextBook can also help to enhance learning through engaging the students in active learning process. Active Textbook allows the learners to collaborate with the teachers outside the classroom using online discussion and posting comments even outside the class time. For example, the learners have, say, listened and viewed the multimedia lecture on targeting strategies such as, undifferentiated, differentiated, micro and niche marketing. After the class the active learners can engage in online discussions with their peers and share views that will help them recall their topics once again in an interactive way. The student can also access the OER through built in dictionary and search tools through which they can search real life examples on targeting strategies used by various companies. It also can enhance the personalized learning by offering the option of read smarter through the use of annotation and bookmark. Students can work in their own preferences by adjusting the font size. The interactive quiz in the Active TextBook gives the opportunity for the learners for example to immediately check on their performances of the particular contents compared to what examples of the bases of segmentation they have learned.

7.2.3. Weak learners support:

The use of Active Textbook can help to combine the narration and video which is very effective for the weak learners to teach marketing principles. For example, the lecture on the use of marketing channels for different companies for effective distribution might have little impact on the weak learners. A presentation on Active Textbook can help the weak learners to interpret the concepts or theories based on their thinking levels and also improve their metacognition process. If the learners can see the video of the marketing channels such as the flow of goods from manufacturer to the final customers through retailers or wholesalers, they can activate their metacognition level. Besides, the learners can pause or replay the video on marketing channels and recall their similar past real encounters with the video to interpret the concepts. The learners can check on the built in dictionary embedded with the book to find any difficult terms and use annotation and bookmark based on their problem areas so that they can further clarify their problems with their teachers. With the use of online discussion or posting comments the students can connect with their teachers and friends whenever they face any problems in differentiating the direct and indirect marketing channels. The use of interactive quiz can help to build the confidence level for the learners after study to see their performance level on certain intermediaries and their roles on distribution. This can also help to motivate weak learners to involve more times on study.

7.3. Social Media

Social media is an ever-growing and evolving collection of online tools and toys, platforms and applications that enable all of us to interact with and share information. The most common examples of social media are: facebook, Twitter, Instagram, myspace, hashtag, youtube, blog etc.

Some of the heaviest users of online tools and social media are our young students, who are growing up as a generation of visual learners and visual-attention seekers. Students communicate, research, collaborate, create and publish online with or without the help of parents or educators. These same students then hop on social media to promote, discuss and share their thoughts with the world. The digital environment is offering us some of the greatest learning opportunities that young learners have ever had.

Figure 3: Facebook wall



7.3.1. Teaching convenience

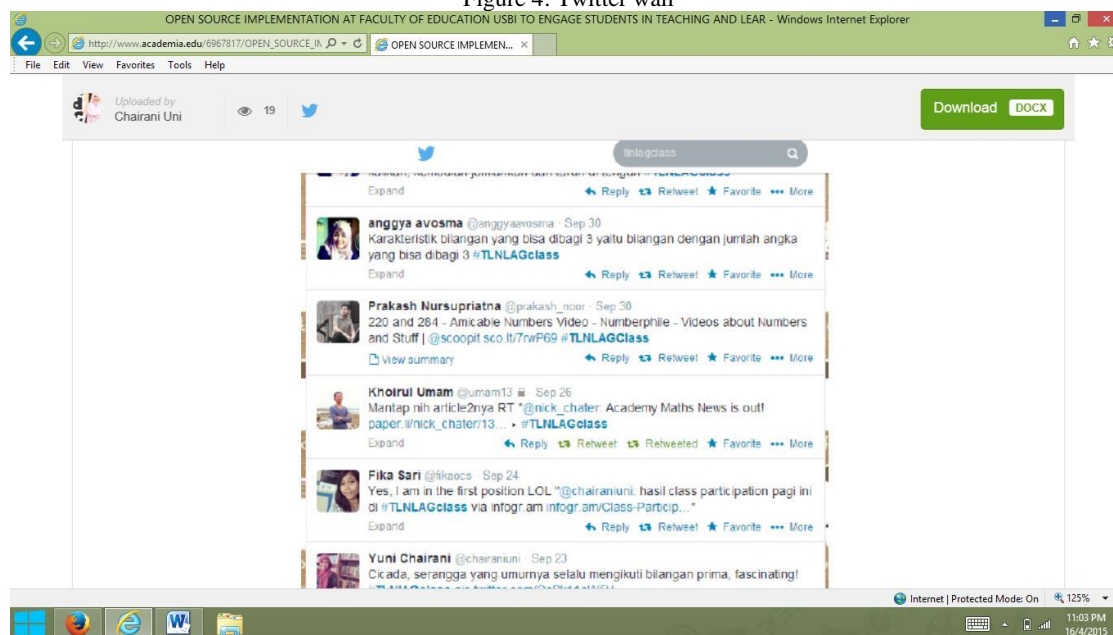
Teachers can suggest YouTube channels such as *Utubersity* in the class, where the students can see the video related to certain company and relate with the teachers' explanations in class. Nowadays many business companies use social media to promote

their products. Beside the emergence of digital marketing, now the online stores and shoppers both are mounting. Teachers can easily ask the students to refer to the facebook page or twitter page of any industry for example Airline companies and their new marketing strategies, customers' response etc. which usually takes several classes to deliver these contents without the use of ICT. Through the use of *edWeb.net*, *LinkedIn* the teachers can develop their professional learning and social network and share ideas from various experts in the field of marketing which can help them to deliver the trending marketing concepts to the learners.

7.3.2. Learning enhancement

Social Media can also help in engaging the learners in active learning process. Whatever examples they learn regarding customer relationship management, marketing mix or marketing communication channels through the use of facebook, youtube or blog, learners can visit those sites for the particular companies and can explore these concepts used by various companies in real life. The students can also improvise their constructive learning process by creating their own facebook or blog to promote their products for example homemade *kueh*⁷ during Hari Raya Puasa, Chinese New Year or Deepavali and get orders, assess the customers' feedback as well. Learners can also use *Utube* to see various video cases which is a very good source for open source of learning.

Figure 4: Twitter wall



7.3.3. Weak learners support

Usually weak learners possess certain phobia in their minds during the learning process due to several reasons such as: subject complexity, confusion with the contents, language difficulties etc. The easiest way to overcome all these hurdles in the learning process is to use the techniques that they are very familiar with or they like to spend most of their times with. Learning marketing principles through the use of social media is like a bread and butter match to win the phobia in their minds. The weak learners in the class are often scared to ask questions in the class. Therefore, they tend to nurture their own confusion which leads to memorisation without understanding or end up with poor performances. If the weak learners get convinced in class that using facebook they can learn marketing concepts and promotional strategies no less than reading the thick text book of marketing, they will really feel the inspiration to go ahead.. Even after the class hour while rolling the facebook pages of various companies they themselves can try to relate the product images, offers, customers response which they have encountered in the class and this will also have a lasting impact in their mind which might not be possible in the traditional classroom lecture sessions. They can also see the lectures, videos from the youtube prescribed by their marketing teachers whenever they want.

7.4. Webinar

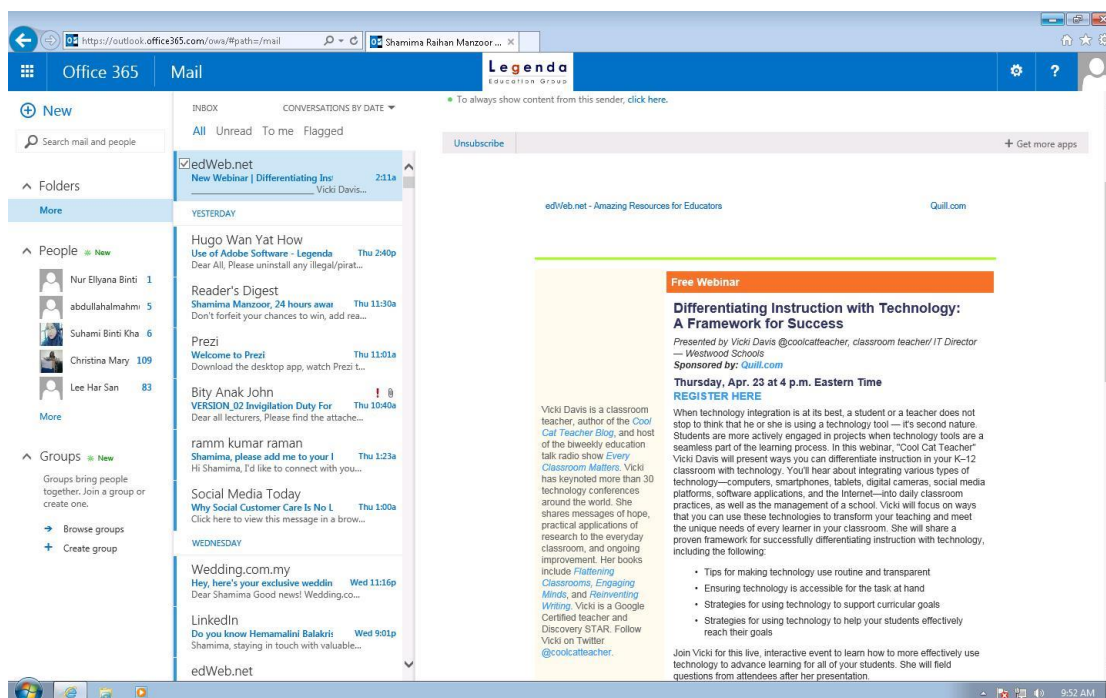
With Internet technology, now marketing lecturers have the possibility to connect with people from all over the world, whenever they want. For more professional events that require more than just a simple video chatting platform like Skype or Google Plus, many technically smart people prefer webinars.

A webinar is a web-based conference that uses Internet technology to connect the individual hosting the webinar to the audience-the viewers or listeners of the webinar. It's similar to using something like Skype, but on webinar people also show their computer screens for professional purposes, and depending on what type of webinar service you decide to use. There are

⁷ A Malaysian food

interactive sections that the audience can use to ask questions. Some webinar providers offer the ability to create polls given to audience members for quizzes or survey purposes. The most common Hosts of webinar are GoToWebinar, AnyMeeting etc⁸.

Figure 5: Webinar



7.4.1. Teaching convenience

Professionals use webinars to give presentations. It could be a one-way type of broadcast where one person simply hosts a lecture or seminar, or it could be used to promote discussion and questions asked from any viewers. Webinars are also helpful tools for conducting live interviews with other marketing professionals, which are often attractive aspects used to encourage people to attend webinars. As the host can easily use their own computer screen to broadcast anything to audience members tuning in, training sessions, courses, how-to presentations and workshops can be carried out as well by using webinar technology. Depending on which service you or the host uses, you may need to download an application first in order to access the webinar. Audience members have to “call in” sort of like making a phone call to access the webinar. Marketing teachers can join webinar to connect with marketing experts throughout the world and also establish liaison with marketing practitioners in the corporate world to share the current global and local marketing strategies. Using webinar the marketing professional can display a slideshow presentation using MS PowerPoint or Apple’s Keynote, just like they do in a regular classroom, meeting room or lecture hall. The teachers can ask questions using hash tag during the seminar even being at their own work station as well. Streaming video is also possible on webinar. This kind of exchange can help the teachers to share their latest knowledge with the marketing learners without the hurdle of traveling to far away universities. Learners also can listen the podcast of the webinar if they fail to attend on the particular time.

7.4.2. Learning enhancement

Webinars often provide an option for the host to record their entire presentation—including all visuals and audio. The host can often use their mouse to create annotations, highlight things or create markings on the screen. Marketing teachers can ask their students to listen to the podcast on various marketing topics such as the recent trends of marketing communication channels, buying behaviour etc. so that learners can play the podcast even after the class which will help them to develop constructive thoughts and create the communication channel for new market segment.

7.5. Infographics

Infographics are visual representations of information or data. Colourful and pictorial, they tell stories in a compact snapshot, conveying information clearly and quickly. Piktochart's apps contain infographic templates which are intended to guide and help users customize and create their own long form infographics. These longform infographics contain data from various sources - complex and simple. They are versatile and can be embedded on a blog/website, on social media or emailed as an attachment.

There are various types of infographics such as: interactive infographics, animations in infographics, multimedia infographics, and responsive infographics. By using Piktochart, the marketing teachers can choose from various Picto templates such as presentation, banner, report based on the nature of the topics in marketing principles. Infographics can help to communicate the marketing concepts, present large data meaningfully and reveal hidden data for the viewers/learners.

⁸ <http://webtrends.about.com/od/office20/a/What-Is-A-Webinar.htm>

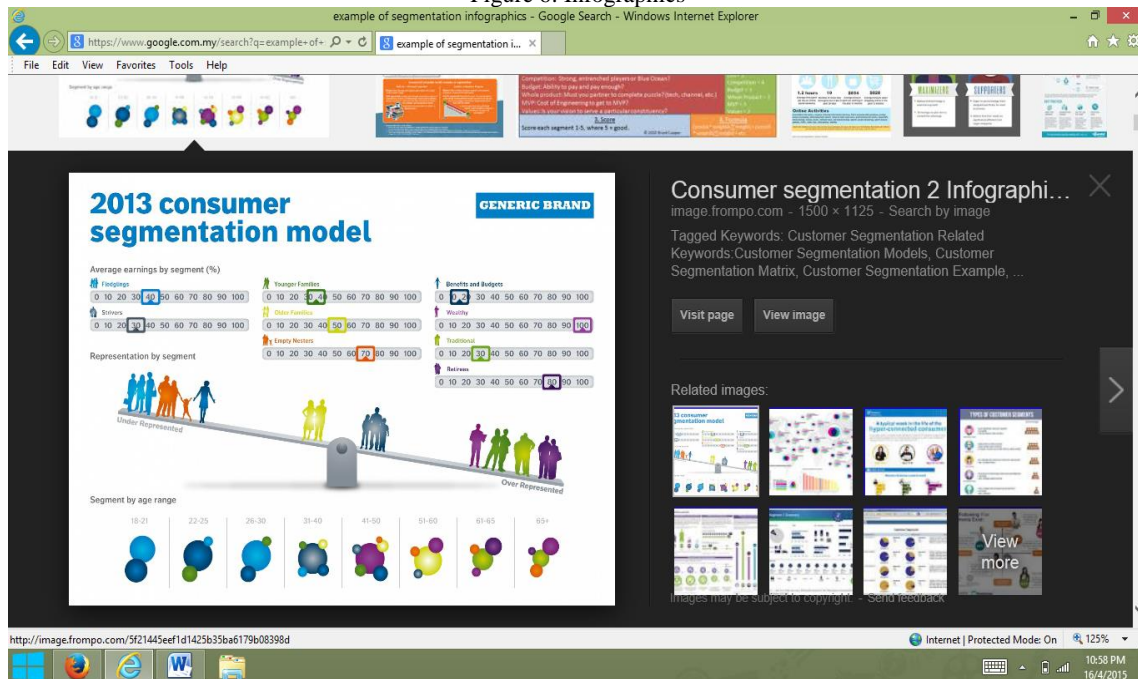
7.5.1. Teaching convenience

Infographics are becoming great educational materials to use in both teaching and learning. By definition infographic representation is multi-modal in the sense that it can have different forms of text: flowcharts, diagrams, images, and many more together. What makes Infographics so popular is their visual attractiveness. A marketing teacher for example can use images to easily clarify the bases of segmentation for Mydin Super market customers with infographics. Besides using various charts in the infographics, they can illustrate the buying pattern for various segments to the learners in tertiary level in lesser time.

7.5.2. Learning enhancement

Students can create different types of infographics such as statistical infographics, Timeline infographics, Informational infographics, Process information, Gameboard metaphor, and Personal preference. Learners can relate the concepts of internet marketing using the informational infographics in the class, and the statistical infographics to understand the pattern of internet marketing users and their effectiveness easily without browsing the big volumes of marketing books. They can improvise their constructive thoughts by creating their own infographics on internet marketing chart in just 60 seconds. They can also share their infographics with their peers by using social media like facebook, twitter etc.

Figure 6: Infographics



7.5.3. Weak learners support

Infographics improve weak learners' understanding by using graphics to reveal the internet marketing patterns and trends. Sometimes reading or listening texts will have very short impact on the learner's minds. For example through informational infographics on the global and local marketing strategies and buying patterns, students can link the texts along with the information which will create long lasting impacts in their minds.⁹

7.6. Mobile website

A mobile website is similar to any other website in that it consists of browser-based HTML pages that are linked together and accessed over Internet (for mobiles typically with WiFi or 3G or 4G networks). The obvious characteristic that distinguishes a mobile website from a standard website is the fact that it is designed for the smaller handheld display and touch-screen interface.

Like any website, mobile websites can display text content, data, images and video. A mobile website has a number of inherent advantages over apps, including broader accessibility, compatibility and cost-effectiveness. Furthermore, mobile website URLs are easily integrated within other mobile technologies such as SMS, QR Codes, and Near Field communication (NFC) e.g. bluetooth, wifi etc.

This is noteworthy that mobile phone / smartphone is the widest used and fastest growing device. The following statistics will clarify the vitality of using mobile and mobile websites for education and other purposes.

- Almost half of Internet consumers across the world are now using mobile devices as their primary mechanism for surfing the Web, according to *Marketing Land*;
- According to Ericsson, mobile subscriptions will reach 9.3 billion by 2019, and of these, 5.6 billion will be for smartphones;

⁹ Visit <http://www.educatorstechnology.com/2013/02/ways-to-teach-using-infographics.html>

- Another study by Morgan Stanley found that 91% of all Americans keep their mobile devices within reach at all times (i.e., 24/7).

It's not just the US that is witnessing the huge surge in mobile activity: smartphone penetration has reached 91% in China, and in Korea, 83.7% of high school students own a smartphone.¹⁰

Figure 7: Mobile marketing web page



7.6.1. Teaching convenience

Marketing teachers can use mobile websites to explain the marketing communication channels, mobile marketing or internet marketing easily in the class to the tertiary students. A mobile website is instantly accessible to users via a browser across a range of devices (iPhone, Android, BlackBerry, etc.). Since almost every student has a smart phone, and teachers can incorporate their marketing communication lectures with practical hands-on session for the learners that will not be only motivating and interesting but also take less time to deliver the concepts.

7.6.2. Learning enhancement

There are several websites providing free templates to design mobile websites. Learners can use for example, zoho.com and choose their own templates to design mobile websites and learn how to promote their products and connect with customers using that. Students normally like to browse in their own mobile 24/7, so if the marketing principles course can be incorporated with hand phone, it will help them to engage with marketing studies even after the class. Besides the learners can use their constructive thoughts to design their own mobile websites and can update the information and features in the websites whenever they want. It will also enhance the active learning process as well. While creating their own mobile websites, students can analyse the various aspects of marketing communication channels and how to use the opportunities to draw attentions for the customers as well which will amplify their personalized learning process.

7.6.3. Weak learners support

Teachers can show the templates of various mobile websites in the class and ask the learners to use their own handphone to visit zoho.com and step by step to register and develop their own website. They can decide to add information necessary for their products including pictures. The visual nature of the mobile websites can have a long lasting impact on the weak learners and they can even try to use the website outside the class. They can share the site with friends and see how the communication takes place in real world marketing.

¹⁰ <http://monitor.icef.com/2014/01/marketers-will-focus-on-mobile-more-than-ever-before-in-2014/>
<http://www.hsolutions.com/services/mobile-web-development/mobile-website-vs-apps/>

7.7. Padlet

Padlet is a great platform for bookmarking and sharing digital content. Since its launch a few years ago, Padlet (formerly Wallwisher) has undergone several great updates that make it an ideal tool to use in marketing class. Padlet is very easy to use and has a user friendly interface. It is web based and does not require any software installation. Padlet is completely free.¹¹

Figure 8: Padlet platform



7.7.1. Teaching convenience

Marketing teachers can use Padlet that allows to easily add notes, text, images, videos, and drawings in the wall that they have created related to marketing mix strategies. They can also add word documents from computer to the Padlet wall related to 4P's used by various companies. Padlet provides a wide variety of layouts to choose from Padlet works across multiple devices including mobile phones. Padlet wall created by the marketing teachers can be embedded into their blogs or websites. Any Padlet wall can be exported in a variety of formats including, PDF, image, Excel. Using Padlet marketing teachers can share the marketing concepts to the whole class simultaneously. By using the multimodal features of Padlet teachers can incorporate image, video and drawings of new product development process and incorporate relevant supporting examples in note form.

7.7.2. Learning enhancement

Padlet can be used as backchannel tool where marketing principles students can post comments and feedback on what they are learning in marketing principles class. The Padlet wall created by their marketing teachers for the whole class where the students can collect and share ideas about marketing mix elements for certain companies enhance constructive thoughts. Students can use it as portfolio where they display their best work. It can incorporate book review page where students post reviews of the marketing principles books they read. Both teachers and learners can post to the same wall at the same time which enhances an active learning process.

7.7.3. Weak learners support

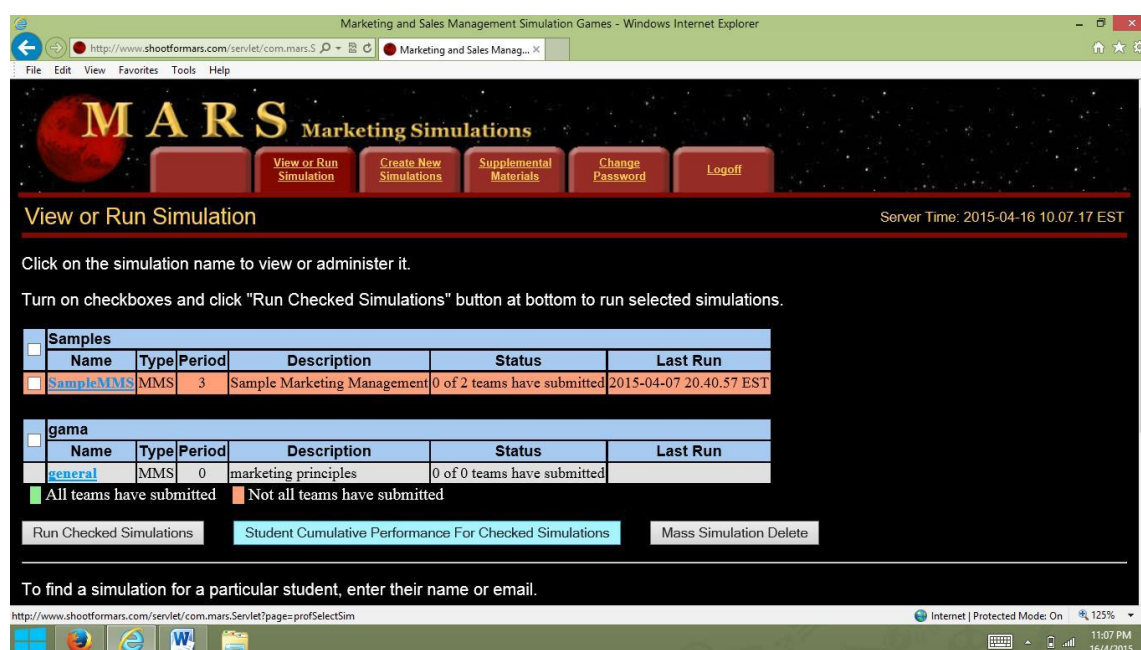
Marketing students can use Padlet for sharing their reflections on what they have learned about marketing mix elements and what they need help with. It also gives the opportunities to see the various images, videos on marketing mix elements posted by their marketing teachers and peers in the class which can be the best support for the weak learners to clarify the concepts even after the class.

7.8. MARS (Marketing Simulation) Games

Business simulation games maintain sufficient reality to reward and encourage real world-like responses by those participating in the exercise. As a result, students are presented with a series of situations that allow them to see the links between decisions made in the corporation, thus teaching real world concepts (Wolfe and Luethge 2003). The use of gaming as a pedagogical device in the business professor's educational repertoire is not new.

¹¹ See more at www.educatorstechnology.com/2014/07/teachers-guide-to-using-padlet-in-class.html

Figure 9: Mars simulation webpage



The Marketing Management Simulation is designed to address the pedagogical requirements of an Introduction to Marketing or Marketing Management class. It is appropriate for mass sections as well as smaller class sizes. Students play the role of a marketing manager responsible for corporate marketing planning, implementation, and control. Teams compete for sales, share, and contribute to corporate profitability. As an educational alternative, simulations are a very enriching part of the learning experience. Students learn both the basics and the higher-level skills (e.g. problem-solving, decision-making, and analytical thinking) better by doing things on their own rather than by being passive in a classroom. These are among the skills at the top of the list when employers are interviewed about attributes they would like to see in their hires. Simulations provide exposure to a simulated real-world environment. Simulations are analogous to on-the-job trainings often used in business environment, but without the inherent risks to the company or customers. It gives students a base from which to evaluate the relevance of course material in real-world applications. They can visualise themselves hired as a director of marketing.

MARS gamers “can make up to 32 new product development decisions, 44 marketing mix decisions, and 15 market research report decisions for a maximum of 91 decisions in each decision period.”¹² To access the MARS simulation the teachers and the learners need to visit www.shootformars.com. The instruction to run the simulation is provided in instructors’ manual. The manual also contains the instructions for creating teams and logging on to MARS simulation (Access code obtained over the internet.). As an interactive decision making process, simulation consists of the following steps:

1. Students make management decision
2. Students submit decisions to lecturer
3. Lecturer runs simulation
4. Student analyses output reports
5. Rinse and repeat

7.8.1. Teaching convenience

Most Principles of Marketing classes typically have text-based content with examinations. This content is frequently supplemented with active-learning tools such as cases, projects, or simulations. Where a simulation is used, there are two alternative methodologies for integrating them into the class.

One class session per week (or a portion thereof) can be devoted to students making their simulation decisions. Students do not need to be required to physically make decisions in the class room itself. They can be in the library, computer labs, dormitories or any location they choose. It presents no problem for groups to make decisions on Saturday or Sundays, or late in the evening, or whatever time fits their schedule. The compensatory class time is provided to ensure that all groups have at least some time when there is no excuse for not being able to get together. In most instances students are able to handle the simulation without the instructor’s assistance. This frees up lecturers’ time for preparation, grading, research, committee work or other activities requiring the instructor’s attention and effort. With this, lecturers can devote class sessions as they see fit, and still obtain the benefits of using a simulation as a pedagogical device.¹³

¹² Source: <http://www.shootformars.com/articles/OOI2005.pdf>

¹³ Source: <http://www.shootformars.com>

7.8.2. Learning Enhancement

From the students' manual marketing learners can get the idea of simulated environment such as company, their position, their products, consumer behavior based on market segments, consumers' choice process, consumer perception, seasonality etc. The competitive environment is set by the teachers. The interfaces in the students' manual are regarding decision forms, accounting review, product decisions, branding, product dimensions, pricing decision, distribution decision etc. There are input reports for the students and output reports for the teachers. The various input reports, such as management decision report, R&D project status report, profitability analysis report, marketing control report, team ranking report, industry performance report, commercialised products report, industry market potential, perceptual map, brand awareness report, competitive promotional expenditure, competitive profit contribution, customer satisfaction survey report, retailers satisfaction survey report, can create an integrative learning opportunities of various marketing principles topics through this simulation technique. As students read chapters on such marketing concepts as given below and discuss the topics in class, they can use their experience in the MARS Marketing Management Simulation as background to understand both the concept and its applicability in marketing practice.

Strategic Planning: Marketing strategy is based on Market Segmentation, Target Market Selection, and Product Positioning. All three aspects are included in the MARS Simulation. Market segmentation is already accomplished at the beginning of the simulation with the market having been divided into four distinct segments (beginners, winners, problem solvers, classic gamers). Students can target any of the segments and position products accordingly.

Implementation: The implementation of marketing strategy is accomplished through the marketing mix. Students input decisions related to:

- Product – including new product development and commercialization
- Price – including wholesale and retail pricing. Communications – including advertising, sales promotion, personal selling, and publicity
- Channels of Distribution – including sales through a retailer to the ultimate consumer

Control: Marketing control revolves around measurement and analysis issues. Topics applied in the simulation include sales analysis, profitability analysis, competitive analysis, and both wholesale and retail customer satisfaction reports.

Market Research: A variety of market research studies are available for purchase illustrating cost/benefit analysis in the selection and use of market research. The simulation is designed such as to perform well. These studies are used as part of the marketing control process.

The Marketing Environment: The marketing environment includes a wide range of influences. The environment best illustrated in the simulation is the competitive environment as the MARS teams or players directly compete against each other for sales.

Consumer Behavior: The simulation reflects both sales to business-to-business customers and sales to ultimate consumers. Choice models (ideal value and multi-attribute) are used in the simulation.

When teaching a Principles of Marketing or Marketing Management course, the above topics i.e. strategic marketing planning (segmentation, targeting, positioning), implementation (product, price, communications, channels) and control (measurement, analysis) are primary. All of these topics are integrated into the simulation.

7.9. Cesim business simulation games

Cesim offers a range of comprehensive business simulation games including marketing management that teaches students to run their own virtual businesses. The students can learn the art of online team environment, where participants can practice their business and decision-making skills. The teams compete against each other just like in real life in order to gain market share. The right decisions lead to success, while the wrong ones to guide in problem solving experiences.

7.9.1. Teaching convenience

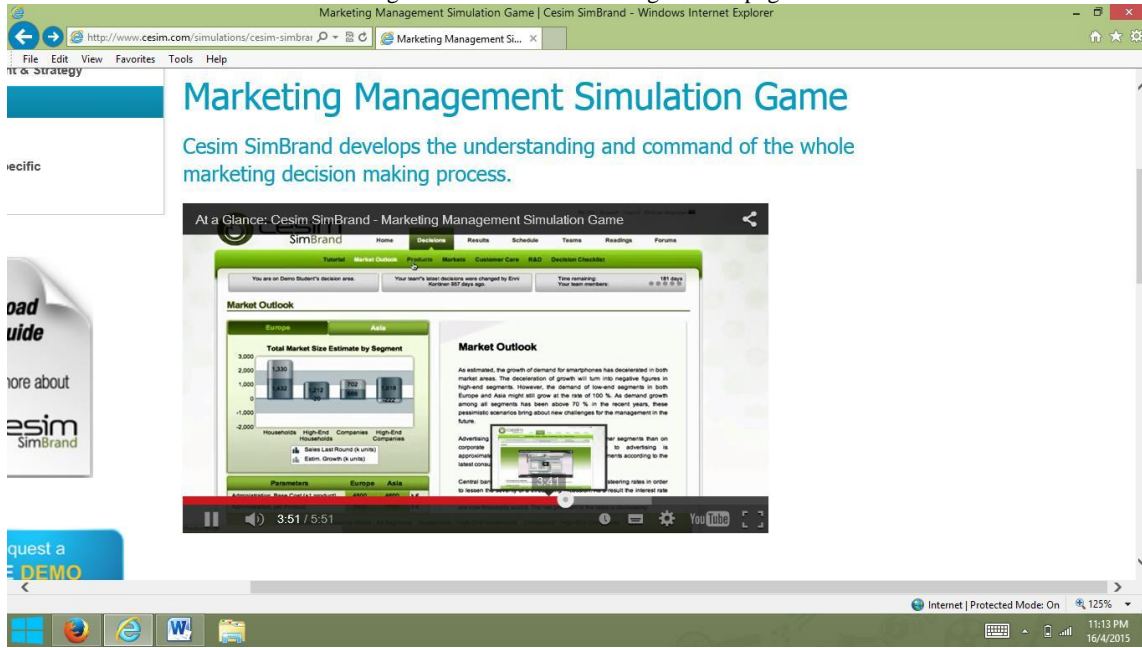
The simulation focuses on marketing topics including product life cycle management, segmentation, positioning, distribution channel investments, advertising budget allocation, after sales services, pricing, sales forecasting, marketing research, competitor analysis, research and development, and profitability. It consists of eight customer segments in two market areas and a maximum of six different smartphone products that can be offered to the markets simultaneously. The marketing teachers can guide the students in unique strategy creation and execution. In addition, the learners participating in the game can start their Cesim SimBrand companies fresh without any operations history. After the lecture sessions on the principles of marketing on the aforesaid topics, the teachers can engage the students in this simulation games that will enhance their applicability of marketing knowledge.

7.9.2. Learning enhancement

The learners participating in the simulation game need to face the decision making challenge to actively manage the product portfolio by matching both qualitative and quantitative features of products with the selected target segments' preferences. The learners also get the opportunities to set the pricing, promotion and channel selection based on the segments' preferences which will not engage them in active learning process but also enhance their constructive thoughts. Moreover, the learners in the teams manage the after sales and research and development decisions. Learners will fully comprehend the different parts of the marketing decision making process, their relationship with each other, and their impact on the company's overall results. It will

also help them to experience in teamwork and problem solving. The simulation creates a range of reports that will help the teams to analyze and benchmark their own performance against their competitors and to reflect on their decisions and projections.

Figure 10: Cesim simulation game webpage



7.10. Prezi

Prezi is an online, Flash-based presentation creator which shares similar functionalities with other information presentation programmes such as Microsoft PowerPoint and Apple Keynotes. It is a visual learning tool which allows you to create maps of texts, images, videos, graphics, etc... and present them in a nonlinear way. The menu for adding elements has a very unique navigational approach and is easy to master. Marketing Principles teachers and students can zoom in and out in a prezi of text and visuals. In a PowerPoint, the user does not make slides. Instead, the user makes one big prezi platform online and zooms in to different views. The user can share his/her prezi with others' computers using the link of prezi account. The user can also embed them in blogs. This can be an interesting alternative to the traditional power point presentation.¹⁴

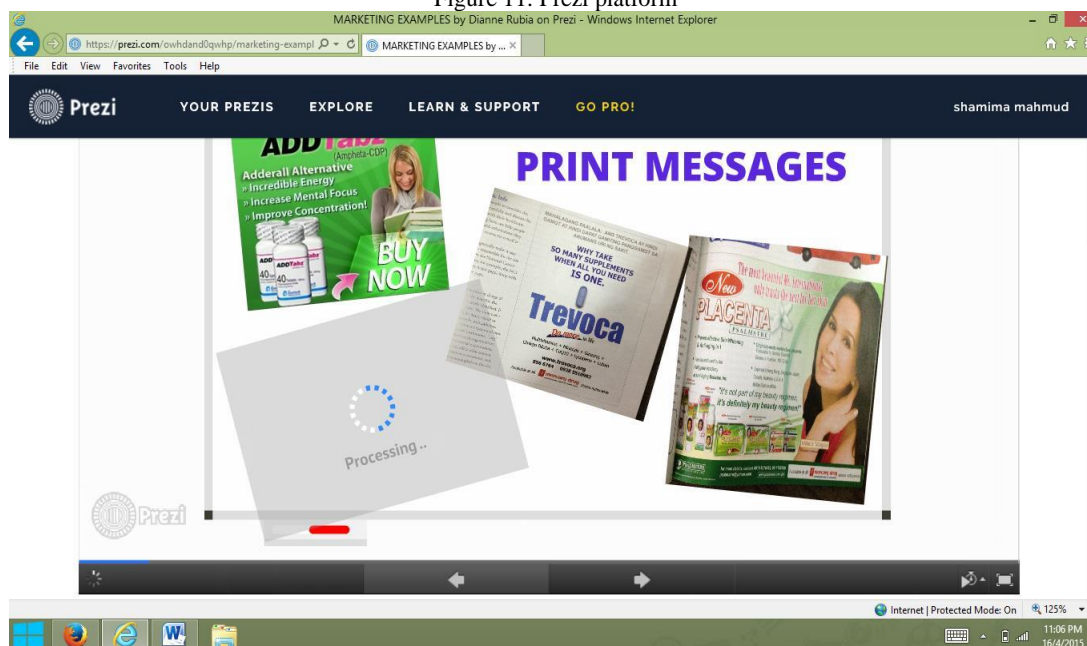
7.10.1. Teaching convenience:

Prezi is a very useful option for the Marketing teachers willing to teach any interconnected concepts of marketing channels such as manufacturers, whole sellers and retailers. It allows the teachers to show the minute details as well as the big picture simultaneously. Prezi creates stunning visual impact, imports pictures, maps and PDFs and uses them as a canvas. For teaching Marketing Principles it is very important that the teachers use some visual instruments while explaining the concepts of marketing mix elements or promotion mix elements or social media marketing to give the real pictures to the tertiary learners. The teachers can embed youtube videos by posting URL of the video related to marketing communication channels in empty textbox of Prezi which can be easily used to understand the concepts when students are online. The marketing teachers can upload documents related to marketing environment, marketing strategies for class discussion.¹⁵

¹⁴ Source: <http://www.instructables.com/id/How-to-Make-a-Prezi/>

¹⁵ <http://www.bbcactive.com/BBCActiveIdeasandResources/UsingPreziInEducation.aspx>

Figure 11: Prezi platform



7.10.2. Learning enhancement:

There are certain features of Prezi that would really enhance the learning process for the various marketing concepts. For example through zooming in detailed pictures, the learners can understand the demographic or geodemographic profile of the customers for certain products. Marketing Prezi created by the teachers can be kept in the public domain and therefore accessed by tertiary students on the Internet. At home, they can navigate the Prezi themselves, observe connections of ideas regarding marketing channels and visualise concepts. Learners can develop constructive thoughts by creating cool adverts in just a few minutes.

7.10.3. Weak learners support:

Prezi also helps the weak learners to strengthen their understanding of new vocabularies such as word-of-mouth communication, integrated marketing communication, horizontal and vertical integration etc. in Marketing Principles through Zoom In features. Besides, weak students can collaborate with the teachers and other classmates to clarify the various concepts of marketing. Prezi is a great tool for interactive marketing principles classroom sessions where students can cooperate in real time with up to ten others, in the classroom or at home, to brainstorm and build a presentation on one shared virtual whiteboard.¹⁶

8. Case study

The following case is based on an experiment using Active Textbook which can turn the PDFs into Multimedia Documents with a view to ensure teaching convenience, learning enhancement and weak learners support 30 HND (Higher National Diploma) *In Business* students, both local and international, from a private university college in Malaysia participated in this study. The case study was conducted in a long semester was from July to October 2014.

8.1. Case description

Three particular cohorts were chosen: *first* lecture sessions, *second* tutorial sessions, and *third* weak students in particular throughout all sessions. The three cohorts were observed once in the first 2 weeks of July, 2014 following regular lecturer-tutorial method without any special ICT and once again in the last two weeks of October, 2014 after using Active Text Book. The students were grouped into 3, and in three different classes they have encountered the same topics from principles of marketing. Each group consisted of 10 students. First 2 cohorts consisted of students of various understanding levels, and the 3rd cohort consisted of only weak learners. The first cohort was evaluated against the time and the completion of the selected topic of marketing principles. The second cohort was evaluated based on understanding and implementation of the concepts, while the 3rd cohort was evaluated based the understanding and outcomes.

8.2. Case problem

First the teacher used the usual methods in the classroom by recommending the common text book Kotler's Principles of Marketing for the 3 cohorts to teach segmentation, targeting and positioning chapter. The class continued 2 weeks. Each week

¹⁶ <http://www.slideshare.net/j3pr0x/13-interesting-ways-to-use-prezi-in-the-classroom>

students had to attend 5 classes, each class of 2 hours' lecture session and 1 hour tutorial. Students had to submit one assignment developing segmentation, targeting and positioning strategy for Proton Exora Bold.

8.3. Outcomes after first 2 weeks

First cohort: the teacher took 4 classes to cover segmentation, bases of segmentation, examples, segmenting the international market etc., 3 classes to cover targeting strategy and 3 classes to cover positioning strategy. Since the teacher referred to the books and handouts, it took longer time to read the contents, and same topics needed repeated explanations to clarify the concepts to the various student groups. For example, bases of segmentation needed to be explained four times to clarify their differences. Due to the lengthy nature of lecture class the students felt exhausted before tutorial session. Besides, the good students sometimes felt bored due to the repetition of the lectures which they found easy for them, whereas the average and weak learners needed that. The marketing teacher had to adjust the speed of lectures with much difficulty.

Second cohort: During the tutorial session the students were asked to answer few multiple choice and short questions. The teacher found that the good students in the class performed well in tutorial. The average students did well in answering short questions but performed average in multiple choice questions. The weak students couldn't perform in multiple choice section and performed average in answering short questions. However in case of assignment, the good students used some understanding in the theoretical part in explaining the segmentation, targeting and positioning concepts of marketing, but they were unable to use constructive thoughts in implementing the concepts for Proton Exora Bold. On the other hand, the average learners used the bookish definitions from various texts and provided some examples which were not suitable for Proton Exora. The weak learners were unable to interpret the definitions and just copied the contents from Internet and proton websites.

Third cohort: The weak learners in the first class were little nervous. During the tutorial session the learners seemed quite demotivated and worried. They found the lectures most of the time they listened hard to jot down the examples and interpretations. The volume of the book did not encourage them to engage into the topics such as segmentation, targeting and positioning after the class. Most of the learners in this cohort seemed overloaded with the information regarding the segmentation, targeting and positioning concepts. They mostly struggled to understand the concepts let alone implementation. During the tutorial session, the performances of the weak students were below average. The students struggled with both multiple choice and short questions due to lack of understanding and lower retention of their memory of the particular marketing concepts. For the assignment, the learners were unable to understand the requirements of the questions being unable to develop the strategies for segmentation, targeting and positioning strategies for Proton Exora Bold.

8.4. Outcomes after last 2 weeks

The same groups of students were observed while and after using Active TextBook to deliver the same concepts such as segmentation, targeting and positioning concepts in the last 2 weeks of October, 2014 to see the outcomes. The outcomes were as follows.

First cohort: First cohort which consisted of learners from various understanding levels was observed against the time and task achievement of selected marketing topics such as segmentation, targeting and positioning. The marketing teacher created the Active Text Book by converting the lecture materials into PDF version which contained interactive elements such as video, pictures, and images of various bases of segmentation. While teaching certain bases of segmentation, the teacher used images to show geographic, demographic, psychographic segmentation and displayed videos related to these bases at the end. Same was done for targeting strategies such as undifferentiated, differentiated, niche and micro marketing strategies and positioning strategies using the interactive platform of Active TextBook. It not only proved time saving in delivering the contents but also enhanced the learning pace and outcome of these tertiary learners.

Second Cohort: The second cohort was evaluated based on understanding and implementation of the concepts. As hinted earlier, after first two weeks without Active TextBook, the good students used some understanding in the theoretical part of only an assignment in explaining the segmentation, targeting and positioning concepts of marketing but were unable to use constructive thoughts in implementing the concepts for Proton Exora Bold. On the other hand, the average learners used the bookish definitions and provided some general and improper examples by copying from the internet.

The use of interactive elements such as video, pictures on segmentation, targeting and positioning strategies along with the text contents helped the learners relate the theories with the practical examples. The search tools and built in dictionary in the Active Textbook allowed the learners to check on any difficult terms immediately. It engaged the good and average students in personalized learning process. Besides, the interactive quiz in the Active Textbook helped in better retention of the concepts and improvement of understanding of all the learners. In assignment, they could use their constructive thoughts with more confidence in developing new segmentation, targeting and positioning strategies for Proton Exora Bold due to the use of interactive contents in Active TextBook. The average and weak students also performed better on their own rather than copying the definition, or using internet information to do their assignment.

Third cohort: This cohort was evaluated based on the understanding and outcomes and consisted of only the weak learners. The outcome of the use of Active TextBook was very crucial for this study. Earlier the learners were more into imitation rather than origination of ideas. Implementation seemed to be far away from their dictionary.

The use of interactive contents in Active TextBook helped the learners' interpretation capabilities of segmentation, targeting and positioning concepts. After the class the learners still played the video, and saw the images rather than reading text only to

understand the concepts. The built-in dictionary and search tools helped the learners to check on any terms that they felt difficult. They could also join online discussion with their teachers and peers to check on any doubts about these concepts. The interactive quiz in the Active TextBook helped to assess their understanding level immediately even after the study. The weak learners used annotation and bookmarks in the Active TextBook to keep track on their study. This process not only enhanced the understanding level of the weak learners but also helped them to perform better all assessments.

As a conclusive outcome of our experiments in the use of ICT tools in university courses on Principles of Marketing or Introductory Marketing, we would like to present a comparative picture of their function-specific relevance to different teaching or assessment components of a module in the following table.

Table 2: Function-specific utility of ICT tools in a university course on Principles of Marketing

ICT tools	Lecture	Collaboration/ Discussion	Tutorial	Test	Quiz	Project/ Assignment	Presentation
Pearson Online Resources	✓	✓	✓	✓	✓	-	-
Active TextBook	✓	✓	-	-	✓	-	-
Youtube	✓	✓	-	-	-	-	-
Facebook	-	✓	-	-	-	-	-
Twitter	-	✓	-	-	-	-	-
Webinar	✓	✓	-	-	-	-	✓
Infographics	✓	✓	-	-	-	-	✓
Mobile Website	✓	✓	-	-	-	✓	✓
Padlet	✓	✓	-	-	-	-	✓
MARS	-	✓	-	-	-	✓	-
CESIM	-	✓	-	-	-	✓	-
Prezi	✓	✓	-	-	-	-	✓

8.5. Time required before and after using Active TextBook:

As mentioned earlier, the teacher took 4 classes to cover segmentation, bases of segmentation, examples, segmenting the international market etc. 3 classes to cover targeting strategy and 3 classes to cover positioning strategy.

By using Active TextBook, the teacher could cover segmentation, bases of segmentation in 3 classes, targeting strategy in 2 classes and positioning strategy in 2 classes for both good and average learners in the class. Thus, the teacher could use the remaining sessions to guide the weak learners to clarify the concepts of segmentation, targeting and positioning. Besides, the teacher could collaborate with the learners even outside the class hours through online discussions and posting comments. Through the use of Active TextBook the teacher could not only enhance the learning process by involving the tertiary learners in active learning process but also create teaching convenience by covering the same concepts of marketing in lesser time. Besides, the teacher could also concentrate on the weak students and encourage the good learners for personalized learning process.

9. Conclusion:

The purpose of this study was to incorporate the ICT tools for teaching Marketing principles for the tertiary learners from three different perspectives: learning enhancement, teaching convenience and weak learners support. The ICT tools highlighted for this study were not all specific to marketing principles but mostly general tools tuned to teaching this subject. The same ICT tools explained here also can be used for teaching any other business related subject. If the tertiary learners get used to using these tools (such as: Social Media, Active Textbook, Padlet etc.) in all their subjects, this will help them to use them smartly in other subjects too. For instance, there is surprising but clear interdependence between the concepts of marketing and new innovations in fashion and engineering or scientific research, theories and inventions. Each of them needs to be marketed locally and globally, priced appropriately and promoted to the suitable target customers. This particularly requires the current and future marketing practitioners to know the implementations of marketing concepts in relation to multiple innovations and inventions. As the enthusiasm of marketing science among the multidisciplinary people continues to mount in the near future, the incorporation of ICT tools in the delivery and reception process will highly help to satisfy those interest groups.

Education institutions therefore should revisit their existing teaching pattern and facilitate the lecturers and students to give the aforementioned tools a try choosing whichever they find for their respective subjects. In our understanding, the marketing teachers and tertiary learners both will feel more spontaneous in using these tools to enhance the whole teaching-learning process. Indeed for all this, teachers should be given liberty to design the contents outside the box, and provided enough technological assistance and training from time to time.

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