## The Role of Electronic Commerce in Supporting the Strategic Management Decision-Making

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#### Abstract

With the increasing use of sophisticated technology within the 21st century, plus with the pandemic that has hit the world over the past two years has made the recognition of online trading systems, namely e-commerce, has become increasingly vibrant. The ground of this paper is to review how a corporation based on an e-commerce system helps the management of the organization to form any decision in business affairs that focuses on how the planning of ecommerce marketing strategy is administered and supported big data technology and marketing techniques. This research was chosen due to its wide scope within the web field as e-commerce systems are generally very easy for management to form accurate analysis consistent with data and knowledge that has been collected through surveys from user feedback involving products or services offered by a company's business which successfully will help them consider strategy and make proper decisions to enhance quality and thus increase the profitability of the organization. Data collection for this subject is obtained through descriptive research methods and analytical research where researchers seek information through the results of previous research conducted online. The findings of this paper indicate that social influence affected most of the decision making. Web business has an advantage of a wide database of potential customers and its buying and selling process transcends borders regardless of where it contributes to the widespread use of this technique in companies round the world.

**Keywords**—e-commerce, decision making, strategy, social, advantage.

#### I. INTRODUCTION

Ecommerce, also known as online or electronic sales, refers to the sale and purchase of goods or services using the internet, online money transfers as well as transfers of information data of buyers and sellers. Ecommerce also refers to the sale of physical products (face to face) online, but can also use simplified commercial transactions online. Ecommerce also proves that every transaction goes

smoothly, it refers to many. In addition to buyers and sellers, there must be banks, certification bodies, distribution centres, etc [1]. That's why the convenience of ecommerce platforms is required. With the increased facilities provided, ecommerce platforms are also actively advancing. Online sales have expanded by up to seven figures, from \$509 billion to \$3.4 trillion between 2000 and 2004 in the North

American (mostly United State) itself [2]. This country is the first country to expand rapidly and widely in the online sales and slaughtering market.

The ecommerce platform provides an opportunity for businesses to exploit the advantages and allow businesses or buvers to obtain information on goods and services online without face-to-face meeting. This allows merchants to communicate with buyers, this allows all levels of merchants regardless of SMEs or corporation, or even crosses national boundaries. This proves ecommerce platforms provide opportunities and space to shop up to the other end of the world, all just at the fingertips [3]. The buyer only needs to perform payment transactions, sale and purchase information (personal data) to the seller, for the purpose of the posting of goods of purchase. Nevertheless, buyers should be vigilant and research a little bit about the seller so that there is no scammer, it will be detrimental to the buyer.

Although cross-border e-commerce has been developing rapidly all over the world, the study in this area is limited. Some believed that cross-border is the intrinsic nature of online services [4] However, most platforms are run in limited areas, focusing on a particular place and have area limits. Compared to regional platforms, the face of platform crosses the environmental boundaries and different needs. Each area limit has rules and principles that buyers and sellers should follow, such as area limits for mailing of goods, even if they are within the same area but it depends on the schedule that has been prepared to enter a remote area. Continuous innovation in ecommerce has been one of the key factors in supporting management decisions, in global competition to acquire additional factors, new production value-added processes and work done to be more orderly and efficient [5]. However, support in management is also very important in ensuring that the trading process is done according to the set schedule.

This research will emphasize on the support of management in decision making, especially in e-commerce.

#### II. THE SCOPE OF E-COMMERCE

Marketing, discovery, transaction processing, and product and customer support procedures are all accomplished Internet-based technology ecommerce apps and services bv companies engaging in electronic commerce as either buyers or sellers. The Internet cloud. traditional Internet. Intranets, and Extranets all serve as crucial electronic commerce links between a company's various components and its clients, suppliers, and other trade partners. This enables businesses to participate in one of three types of electronic commerce apps.

- Business-to-Consumer (B2C).
  Businesses must create appealing electronic marketplaces to persuade and sell products and services to clients in this type of ecommerce [6]. For their commercial clients and suppliers, they use secure Internet or extranet e-trade platforms.
- Electronic data interchange (EDI) is a computer-to computer exchange of electronic commerce documents with larger corporate clients and suppliers that uses the Internet or extranets [7]. Organizational auction and sharing marketplaces are provided through Business-to-Business (B2B) ecommerce platforms.
- Consumer-to-Consumer
   e-Commerce:
   Online
   bartering websites such as e-Bay
   have made it possible for
   consumers (and businesses) to
   purchase and sell with one another
   through an auction procedure on a
   bartering website [8]. For B2C or
   B2B e-trade, online shopper or

business barters are a critical e-trade option.

#### III. CONCEPT OF E-COMMERCE

Big Data is described as a collection of data with a vast variety and structure that cannot be collected by typical data means in a reasonable amount of time, but that can be extracted and integrated using special information mining techniques and after mining [9]. Precision reused marketing is the application of current big data technology to segment and position customers in the target market, determine their preferences and requirements, and then push items or services that suit those needs at a more opportune moment through various marketing tools or channels.

# IV. DESIGN AND PRECISION OF AN ECOMMERCE MARKETING PLAN BIG DATA TECHNOLOGY-BASED MARKETING STRATEGY

# A. Designing an e-commerce marketing strategy based on big data technology

Precision marketing in e-commerce is carried out in the following ways: first, the user's data is collected and collated, including transaction data, browsing situation, payment situation, and log data of the user online; second, these collected data are used as the most basic and underlying data to model the user's behaviour, such as hobby model, credit model, and so on; third, the user's portrait is identified, and the user's portrait is used to judge the user's behaviour [10]. To achieve exact marketing outcomes, the user's own marketing value and risk level are analysed, the results are relayed to other systems, and the results are then promoted through various marketing approaches.

Using their own data platforms, which are more developed and can now provide one-stop services and solutions for their own big data company, well-known ecommerce companies have apparent other e-commerce advantages over companies in terms of big data collecting. In addition, the company offers a one-stop service and solution for its own big data business, which can integrate and analyse data from various channels and identify users from various channels, as well as track, store, and identify data resources from various angles in order to provide more effective basic data for forecasting [11].

To create a user profile, the obtained big data is analyzed and merged. The creation of the user profile, which the company uses to characterize the user and implement the related precision marketing plan, is the most important aspect of the entire precision marketing process.

### B. Big data technology-based precision marketing techniques

- Email Marketing: When it comes to email marketing, businesses must pay attention to the right moment in order to comprehend the customer's wants and send the email to the intended recipients. The email's content should be brief and clear, rich and entertaining; if the email's content repetitive, customers will become impatient; and there should be some degree of innovation in the language, which will catch the user's eve at first sight and resonate with the consumers [12].
- SMS call-back: Current users will leave personal information, such as phone numbers, when they first purchase items, which will be a very important information resource for enterprises, who can use the customer resources they have to carry out accurate marketing activities using telemarketing, but should pay attention to protecting customer privacy and not leaking

- customer information to some unscrupulous businesses in the process of this marketing activity [13].
- Social Media: E-commerce The process of using social media to promote an e-commerce company is known as social media marketing. E-commerce businesses can utilise social media to raise brand awareness, get online followers, and increase sales. Businesses can also utilise social media to promote their brand, profile, and products. This kind of platform would benefit the users of social media include expand the online reach, reach the target audience where they spend the most time, engage the target audience in a casual way, and help the brand to get shared online [14].

#### V. APPLICATION OF E-COMMERCE IN MANAGERIAL DECISION

The way businesses use eCommerce will vary, and any deployment should be driven by business needs rather than technology. Technology is merely a facilitator. A company's best use of such advancements and the amount to which they want to expand into e-commerce may be an online link to their bank in order to verify the most recent financial status [15].

Email is a highly effective business tool that is sometimes overlooked and underrated. The rapid expansion of low-cost Internet access and related services has undoubtedly been the driving force behind this new business revolution, providing many SMEs with the opportunity to enter the e-commerce market at a price they can afford and, on a level, they can understand [16].

Website can deliver enhanced levels of customer service and serve as a significant information source. Products do not always have to be sold online, while in some circumstances it may be the most efficient method of doing so.

#### A. Electronic Funds Transfer

The term "electronic funds transfer." or "EFT," refers to computer-based systems that are used to conduct financial transactions over the internet [17]. The phrase can be applied to a variety of ideas. Cardholder-initiated transactions include those in which a cardholder uses a payment card to make a purchase, as well payments electronic made businesses, such as salary payments and electronic check clearing. transactions necessitate communication among several parties. When a card is used at a store or an ATM, the transaction is sent to an acquirer, who then sends it through a series of networks to the issuer, who manages the cardholder's account [18]. Through a stand-in agreement, any of these entities can authorise a transaction offline.

### B. Electronic Data Interchange (EDI)

EDI is a tried-and-true method of conducting electronic business transactions around the world. Lower order processing costs, quicker order cycle times, fewer errors, and an electronic audit trail are all advantages of using EDI [19].

EDI is a method of electronically transferring data or transactions between two trading partners, such as purchase orders and invoices, using defined file formats [20]. The file can be sent via the Internet or through a Value-Added Network (VAN). As an electronic post office, the VAN receives, stores, and transports EDI files. When a corporation or trading partner sends or receives files, the files are read and translated. The transactions from the files are subsequently put into the core programmes of the trading partner [21].

#### C. Supply Change Management

Supply chain management (SCM) is the process of efficiently planning, implementing, and controlling the supply chain's operations. From point of origin to point of consumption, supply chain management encompasses all raw material, work-in-process inventory, and finished goods transit and storage [22].

Supply chain management is a crossfunctional method to managing the flow of raw materials into and completed items out of a business to the end consumer. Corporations have relinquished their control of raw materials sources and distribution routes as they attempt to focus on core capabilities and become more flexible [23]. These functions are increasingly being outsourced to other companies that are better or more costeffective at performing them.

As a result, the number of enterprises participating in meeting customer demand has increased, but management control over every day logistics operations has decreased. Supply chain management principles arose as a result of less control and more supply chain partners [24]. The goal of supply chain management is to increase inventory visibility and inventory velocity by increasing trust and collaboration among supply chain participants.

#### **D.** Online Transaction Processing

Online transaction processing (OLTP) refers to a group of systems that make it easier to create and administer transactionoriented applications, such as data entry and retrieval [25]. The term "transaction" is a bit confusing; some people think of it in terms of computer or database transactions, while others think of it in business terms of or commercial transactions. OLTP is also a term for processing in which the system responds to user queries promptly. A commercial transaction processing application is an automated teller machine (ATM) for a bank. Banking, airlines, mail order, supermarkets, and manufacturing are among the industries that employ the technology [26]. Electronic banking, order processing, employee time clock systems, ecommerce, and e-trading are examples of applications.

Simplicity and efficiency are two major advantages ofonline transaction processing. It minimised paper trails and provided faster and more accurate revenue and spending estimates. Because of the frequent updates, it also provides a firm foundation for a stable organisation. Another aspect of simplicity is allowing customers to choose how they wish to pay, which makes transactions even more appealing [27]. OLTP has demonstrated to be effective since it expands an organization's customer base, speeds up individual procedures, and is available 24 hours a day, seven days a week [28].

#### E. Point of Sale

A retail store, a checkout counter at a store, or the location where a transaction takes place are all examples of point of sale or point of service (POS) [29]. More specifically, point of sale refers to the hardware and software that is used for checkouts; it is the electronic cash register's counterpart. Restaurants, hotels, stadiums, and casinos, as well as nearly any form of retail establishment, use point of sale systems.

Most retail point-of-sale systems are capable of considerably more than just "point-of-sale" functions. Many POS systems can contain fully integrated accounting, inventory management, open buy forecasts, customer relation management (CRM), service management, rental, and payroll modules, even for smaller tier 4 and 5 stores [30]. Because of this breadth of capability, POS solutions are sometimes referred to as retail management software or company management software by providers.

#### VI. DISCUSSION

#### A. Social influence play part in Ecommerce decision making

Social influence can be defined as someone's behaviors, opinion, belief, and action persuade other individuals. Social influence also known as a channel or mechanism to convey messages, ideas, and facts to other people. This act occasionally happens even on trivial events which are "How individual dressing", "what is trending' and "lifestyle". This indicated social influence occurs daily and sometimes we did not notice and naturally follow it especially what was trending at that time [31]. In addition, most people spend most of their time on smartphones, especially Gen y which impulses or triggers the culture to follow what is on the trend.

The 21st century is a turning point for everything were technology and social changes rapidly. Mobile phones have become as a part of us as everything at a tip of our finger. Everything can be done just using a smartphone, forget your wallet? online banking got you notes, calendar, and you are also can-do online meetings with it. This also includes online shopping as consumers prefer online shopping rather than face to face shopping as it becomes more convenient and suitable for them to squeeze in their plan [32]. As people are too busy to keep up with their schedule with their own desire and needs as their working time starts from 8.00 am to 6.00 pm daily except Saturday and Sunday. As a result, they don't have much time to simply visit the mall if they want to buy something. This becomes worse when a mass of people visits the mall and at the same time make a long queue. These phenomena will open opportunities for companies to cut off their marketing expenses by promoting their product or service on the internet to reach out to their target market. This act simultaneously will reduce the price per unit of product. From e-commerce or more familiar as online shopping allows consumers to purchase directly from the seller or company through the internet.

Based on Figure 1, it clearly shows that how social influence extremely act on shopping behaviors, which is 45% of users read previous or other people feedback, review, and rating about product ahead before buy that product while only 22% of

current buyer leave some review on the product. So, companies saw that as an act of influence potential buyers as opportunities to upgrade their ecommerce platform to attract more customers to their website [33].

By e-commerce, companies can take privilege of social influence to approach their target market and increase their sales of the organizations by introducing webbased decision support systems, for instance recommender systems. Social platform also recognized as a platform for organization or firm to thrust recognition of their ecommerce platform among their online buyers.

Through this system, consumers can get peculiar recommendations based on their own interest or purchased history. Companies believe these tools are the most effective tools to increase consumer interest on their product and also may be recognized by another potential buyer [34]. As web users are easily influenced by others by only just review and feedback from the previous buyer. By the existence of those platforms, as a previous customer sharing their review about the product and as a potential customer those tools are important for them to evaluate and consider their decision on buying a product. They will judge those reviews to fit with their preference and liking. With this indirectly influences and attracts a new consumer to buy that particular product and at the same time this will hit sales. Companies' companies' sometimes skyrocket when their product review from someone has gone viral on social platforms. For example, when an influencer, youtuber or instafamous makes a review or unboxing video of a product on their personal account about the product that they bought.

This act will encourage other people or their fans to also try the product themselves. This can be qualified as chaos theory which are the studies of behaviors of dynamical systems known as butterfly effect [35]. Recommendation tools are really helpful for consumers as they will organize the recommendation or more familiar as a filter to online buyers. They usually are "rating", "price range", "shipping option" and "payment option" will make the website friendly user and easier to use. Sometimes recommendations such as "users who bought this also bought".

Other than that, the existence of social platforms has been initiated as a marketing strategy to approach more customers as they also want to build trust and loyalty between companies and customers. Trust is the most crucial element between customer and seller when buyer online to create confidence in the authenticity and trustworthiness [36]. This will make customers willing to spend money on the product. This is why most companies encourage previous buyers to leave feedback, review, and rating of the product that they bought. Because usually a new buyer is unfamiliar with the product and afraid to take risks by buying a new product. So, those reviews left can encourage or guarantee the quality and the function of product or service. A new customer or a buyer tends to buy a product from the familiar or the most regular store visited by the previous buyer rather than a newly established shop. By launching a recommender system, companies can pull a new customer through regular customers. This approach also will gain more positive and high-quality reviews [37]. Companies also can allocate the most preference and liking of the customer. This also helps the marketing department to make a better plan or strategy to increase the monthly sales to achieve companies' objectives.

Social media platforms also will cut off expenses in terms of advertising as the marketing department no longer has to spend a lot of budgets on advertising their product. Creating some video reviews about the product and also posting some posters can boost up the popularity and interest of the product or service, as many people nowadays spend a lot of time on social media. The tendency of users to post through their personal account is really high and at the same time will increase the viewer. The information such as benefits, quality and function of the product will spread. This information is also useful for the current user to know how to use the product properly [38]. Because sometimes there are customers who find it bothersome to read the user guide as it is too long and quite hard to understand, see Figure 1 [38].

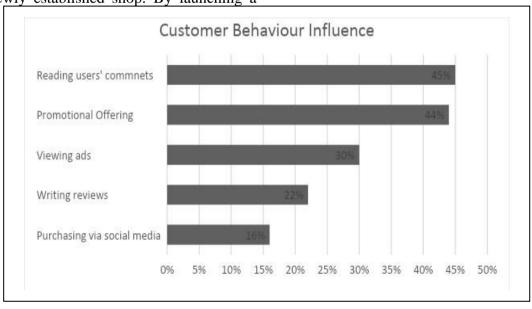


Fig.1 Customer behaviour influence chart

#### **B.** Free shipping

The development and extension of ecommerce brings out shipping fees that become a part of customer concern as customers must pay extra for shipping service. As customers prefer to buy products when the seller offers free shipping seeing that most customers give up their intention on buying as they have to pay extra for shipping cost. This becomes more crucial when customers order products from overseas sellers as they have to pay two times the normal fee. Sometimes seller set their shipping fee based on weight of product as their policy of companies, resulting customer having second thought on buying as the heavier the product the larger shipping fee they must to pay. Hence companies should

analyze customer behaviors as they can out-turn customers' desires on buying. For example, Jake thinking on buying Tefal air fryer on Shopee RM 359 and when he wants to check out, he realized he has to pay RM 20 extra as shipping fee as the product is heavy and big, leading Jake on dilemma either he willing to pay extra RM 20 on product or not. In the worst scenario Jake might abandon his intention on buying an air fryer as it is already high cost so when adding extra charge will be out of his budget. So, companies can improvise their e-commerce platform which adds a new feature. For example, "free shipping minimal order RM 15" or discount shipping free when spending above RM 15 [39]. This will catalyse customer desire as they use psychology to lure potential buyers.

#### C. Decision Making Process in E-Commerce

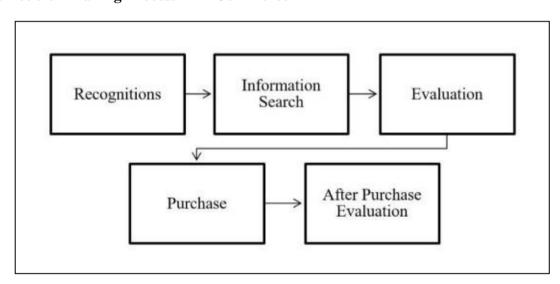


Fig. 2 A decision making process in E-commerce

In conjunction, customer or buyer behavior process consists of Recognition, information search, evaluation, purchase and after purchase evaluation where customers make when buying online from e-commerce platforms. The process as shown in Figure 2 repeats itself and sometimes a buyer makes a lot of those processes to ensure the product perfectly fits their preferences. Start from recognition which is the first step where

customers will decide they want to use a regular website or try a new one. If a customer decides to buy from a new one, she or he has to visit a web-based community early either way those websites are worth their hype and to ensure their product. After a buyer has decided, they will search for information about the product they want to buy. For example, the quality, function, and useful life of the product, is it worth buying? Or

they can find similar products with the same function but with better quality [40].

This evaluation stage, buyers will compare the product between sellers. This includes reading review. recommendation, and rating left from the previous buyer to guarantee the quality of product is the same as their expectation. After going through a lot of review, rating and recommendation of the product, the buyer will go to the next stage which is purchase. At this stage customers will buy the product that they want. Last but not least is the after purchase evaluation process which is a customer's urge to leave a review of the product where the product fits their preference and liking. Sellers also encourage buyers to review the condition of packaging or the quality of the product when they receive it and also ranking. This is because it will prove to the potential buyer to make some reference before the buyer in another language seller will gain trust from the buyer.

# VII. ADVANTAGES AND DISADVANTAGES OF ECOMMERCE THAT AFFECT DECISION MAKING.

The benefits of an e-Commerce system can be seen in everyday life, such as the cheaper costs of operating an ecommerce store compared to a physical store, which translates to cost savings for the consumer. This is one of the most significant ecommerce benefits [41]. Prices on the online store are usually lower than in stores, and ecommerce sites might offer additional discounts and promotions that are easier to redeem. It's also more handy and secure, because buying when you want, from wherever you want, is considerably preferred (and far safer) than going out in this COVID world we've created. Aside from the risk of contracting the flu, there's something to be said for shopping from the comfort of your own home, without having to brave the elements, stand in lines, or deal with the

cold [42]. Aside from that, the global marketplace that is the internet offers such a wide range of things such people may buy gadgets from China, garments from Paris, and good old US products all from the comfort of their own homes. The breadth and variety of products available for purchase online are unrivalled.

When buying online, the nicest part about e-Commerce is that all information is literally at your fingertips, including real customer reviews - arguably the most effective, product descriptions, usage videos, product instructions, and social validation. Consumers may readily compare products, brands, and websites, with even side-by-side comparisons conceivable, thanks to one of the main ecommerce which benefits of comparison shopping. Many comparisonshopping websites exist just to allow customers to compare products side by side based on price and discount criteria. Many of us do not have much time for shopping, and in an age where time is a valuable commodity, shopping online allows consumers to save a significant amount of time. Because 63% of shoppers begin their buying trip online, it makes sense to be able to shop while they're already there [43]. When you can access a larger product choice at a lesser price from the comfort of your own home, there's no need to go out, shop in-store, wait in line, and then return home.

E-commerce not only helps providing benefits to customers, but it also supports business owners and vendors by lowering costs. Going online eliminates the requirement for a physical storefront, lowering the company's fixed costs. Furthermore, because much e-commerce automated, fewer employees necessary. Using ecommerce to market an e-commerce store for example, Facebook advertising and social media marketing are far more cost-effective than traditional offline marketing. These cost reductions equate to lower customer costs and increased sales for the company. For

businesses, this is one of the most important advantages of e-commerce.

#### A. Low budget

As we know, online business doesn't really cost plenty for its starting. Online businesses provide a lower risk of starting a business. For a new online business that only starts operating, the low cost has made it more desirable among the entrepreneurs. Physical inventory and expenses for office, utilities or garage wasn't needed in web business as it didn't depend on location unlike traditional business that has to take account of strategic location. In general, the input cost was not so much a big budget and thus might likely give an opportunity of investment within the end of the day. However, if you sell a real product, and it comes from overseas, the value may go

Conventional business has to take account of the high cost involving office and other physical facilities. The value of starting a standard business is typically higher but the cost of renting a shop, renovating a building and employee wages are often reduced through a web business. The savings of renting and equipment can be used to buy stock or even for website design costs [44]. Lower fixed charge means fewer staff are required. Rent cost and employee wages are not as much as conventional business as there's not many staff to feed. In fact, they don't have to spend much money on staff productivity programming. For example, management is not necessarily spending money for training such as employee training and development or advocating courses to improve employee performance as the quantity of their staff members are small.

An offline business, if selling goods, must keep a physical inventory, and store it. Overall, an online business is far simpler and cheaper, and you will incur more losses with a failed online business compared to running an equivalent business with an offline venture.

Marketing costs also are critical to continuing to drive local platforms. Management can plan to sell goods at a cheaper price compared to face-to-face buying and selling operations where goods need to be sold at a better price because need to pay shop rent and transportation while conventional sellers must prepare funds monthly and yearly to pay the cost. Lower cost also means lower price [45] Consistent with a study conducted in India, the most common reason for people shopping online is due to the worth with 40% out of the 30 respondents. Additionally, the worth of products sold online are often reduced because many distributions and sales costs are often reduced. By making use of the easily merchants can promotions by publicizing each of their products. The cost for advertising of web business is not as much and can be reduced by a lot where cost for transportation and workforce for marketing is only little as it can be conducted much easier. To focus on the more important things, recognize the sales channel and make improvements to it by assigning work and outsourcing is very crucial.

Another incontrovertible fact that budgeting e-commerce affordable advertising and marketing. A corporation doesn't need to open new stores in another location as they are already within the reach of the global marketplace. The company just needs to be good at marketing and improving their business quality. To do that, they need to have good communication and IT skills to ensure that people know and are interested in their business [46]. Decision making team should pay attention to the important in elements that should be advertising the such as product classification, agency credibility, how many times should advertisement take place, product trademark, appealing by alliance with celebrities, and information for a more amazing outcome. Promoting using social media marketing is

far more cost-effective than promoting offline as the internet realm is much bigger and potential customers are far innumerable. Using soft sell advertising as marketing content and Facebook live is extremely common and effective nowadays within the social media world as the number of individuals who have social media increased day by day.

#### B. Variety of goods

Expanding the market by outstretching a worldwide audience is one of the advantages of e-commerce. businesses have more opportunities to make sales. Although conventional business has a lot of firmness, stability and dependability especially for the old generation, it has a limited range. Don't target blindly according to lust, target the sales of your product to potential buyers or customers who should only. Knowledge regarding the product as well as the market is a crucial asset that determines success. Study the knowledge and in-depth knowledge regarding products to avoid being looked down upon and fewer trusted by potential buyers. The wide-ranging resources from every corner of the world and the competency of the management team are principles for building a supremacy for the company. Companies can create and market their products to from customers that come backgrounds varying ages, incomes, purchasing behaviour and merchandise interest and dislikes.

Companies have to ensure the product ranges of their business is the top priority for companies. Product ranges may be a group of the same product like mobile phone casing, clock and garments where product mix may be a group of products that have connection to each other. Cake flour is additionally available with food colouring, whipping cream, sprinkles and plenty more of product for creating cake and dessert for the product mix. Thus, the corporate got to provide and follow rules for product listing. The more variety is prepared, the better the consumer can

make comparison on product and the price according to their need and interest. This may then encourage the customer as they will scroll anytime and anywhere, they need consistent with their own flexibility. As there's no need for shelf size or store size limitation, e-commerce business shops are in a position to be able to list many various items [47]. Ecommerce is done mostly by digital equipment where the demand for stock or services will go through in the nick of time stockpile only when it is needed that will concede companies maintaining a small-scale of inventories and overhead cost. Internet buyers are more motivated to shop online because it is straightforward in payment and its time saving. Unlimited internet access also makes people able to buy according to their wishes with various options in front of their eyes.

Being unchained from a physical store also entails being liberated from the restriction of shelf space. This entitles ecommerce businesses to supply a good range of products. E-commerce has the power to scale up rapidly. Online businesses are ready to proportion easier than physical retailers, as they're not bound by tangible restrictions. Entrepreneurs need to keep calm and be creative. It is important for the team if they want to be in this field for the long term by giving full attention to customer services and having a good and strong connection by understanding their behavior as their interest always changes from time to time Apart from that, E-commerce encourages its participants to introduce and display their own website. That website must be full of creativity, detailed and have full information about the business and its product. The information should especially include the background of the company such as the certificate from the Companies Commission of Malaysia so that it can build trust from consumers. Moreover, the design of a web site should be convenient by providing a simple and concise design that only

provides relevant detail [49]. To increase the opportunity of unwanted goods by consumers. providing search suggestion techniques is the best way to make things easier for them. E-commerce websites will be able to provide customer friendly correlation and recent information about the product offered. This connection of warmth between traders and buyers could be implemented by providing a detailed description for each product in the network. information provided in the description is intended to help users make the right choice according to their prospect.

#### C. Competitor

Online businesses have the potential to succeed on an outsized scale, but it has a greater risk as there are a lot of compatible competitors. This is often despite the great advantages e-commerce proposed to the decision-making team, it also provides a local e-commerce industry player face several key challenges. Among the challenges that need to be faced is the difficulty of getting more prospects because of the existence of competitors from abroad directly through the ecommerce platform available in Malaysia. Through this platform, sellers from China and the United States especially, for instance, can sell directly from that to Malaysia, thus creating country competition with local sellers who also source goods from there. This is often because businesses that adopt digital technology earlier will have more power or strength than competitors, as it has the potential to more quickly modify marketing strategies in line with current trends. So as a little start-up business, there's many competitors out there. The rapid pace of digital market competition today makes digital transformation a core business strategy of the future. To compete in this field, the owner has to ask advice from someone professional about the web industry and have a great intuitive feeling when befriending others sometimes people can pretend to be nice

in front of us but they actually try to destroy us. Entrepreneurs have to be alert and study the laws in business so that they can follow and respect it to avoid any legal charge.

The internet business is extremely dynamic, and there are always changes from time to time. Not all online businesses are able to market their products in an efficient way. Web business owners definitely want to grow their sales income and expand their business. For a web business, the product itself requires visualizations and photos which will attract customers to the web site. Changing the angle of the product photo is additionally an honest and great action to form the ad to look more attractive. If not good at photo editing, hiring a skilled person to do it so that the photo is beautiful and attracts customers and that will cost the management team especially if they don't have someone who is capable of doing it is the right choice. Actively displaying the products online meaning that the market could be reached more easily and successfully. Often this internet marketing requires trial and error to seek out what sort of campaign is the best selling particular effective for a productively. Learning some marketing methods and doing the trial and error in marketing will make the entrepreneur find the internet marketing method that works best for online business. It's even more frightening to ascertain the public's acceptance of a competitor's product as it is even greater and it seems to possess a notable name in the market and therefore the worst part is feeling like giving up halfway. People differentiate prices in online stores, and then they will evaluate all responses and rating about the product in advance before making the optimum selection of product and decision. Online shopping helps in comparison of products from different online shopping websites also to a certain level the comparison of products in websites like Shopee or Lazada and therefore the physical market in terms of quality and price [50]. To avoid a price war with competitors, new businesses should not at all charge the product beneath the market price even though it will make the business become well known to the industry. It is also compulsory to make a strategy that is able to increase the price higher than other competitors but never outrages than the price market. This is to ensure an ethical and healthy competition in the field as well as to protect the company image. Instead, promoting the new product by giving a discount or coupon is highly encouraged.

#### D. Customer trust and attitude

Often people assume that the risk only comes from outside (external), regardless of the risk that arises from within (internal). The downside or risk from the inside is that customers expect sellers to always be ready and able to help solve their problems, so the seller won't get a vacation unless they hire someone to handle all of these things. Conventional relationships are relationships formed face to face while unconventional relationships are formed online that don't require face to face meetings. This makes the consumer can't be sure that their transactions are going to be processed accurately and in addition to goods ordered from entrepreneurs that do not reach consumers quickly. This causes consumers to be distrustful of e-commerce businessmen [51]. There are two types of trust involved in e-commerce business which is the initial trust and the trust that is established from customer personal experience. Preliminary trust means a potential consumer estimates sensibleness of a merchant according to the information given and shown by the third party whereas the second type trusts are based from face-to-face experience, entail on primary settlement that is accompanied by the estimation of the end product. They are unsure that the seller simply won't charge extra to them and that they don't know if the seller will provide

a refund guarantee. Safety issue of the product is the most talked and discussed among the entrepreneurs of offline business. The utilization of e-commerce shortcomings its own management may face delays in delivery by couriers might be because of several factors such as delivery centres having to temporarily cease operations because of flooding or even the staff got positive in Covid-19. Even though the accident was from a delivery company's mistake, consumers tend to put the blame on the ecommerce company. For the next upcoming years, hard to deliver items like home improvement goods and furnishing demand will increase despite its difficulty to deliver, thus increasing the risk of broken property [52]. Therefore, the company has to prepare for every outcome regarding the delivery by choosing the right shipper for the company to reduce risk and loss in the future.

Consumers are more concerned with the actual quality of the goods purchased. Sometimes, what the advertisement and catalogue show does not what it actually seems in the real world. This may cause the management to have to bear losses and be forced to form decisions that satisfy the parties involved even though it might be. But not only management got to face the issues that arise from customers, they also got to cater potential buyers who turn out to be scammers as an online business owner. Traders need to deal with various customer frustrations. They also have to be tolerant with customers who are often dissatisfied with the products they bought even when they are at fault as they only choices looking make through advertisements on the Internet without any further research. This situation also has an impact where traders have to bear the costs to send a new good back for the sake of consumer satisfaction. In addition, there also are users who are being fussy and thus disrupting Internet traders entrepreneurs. This situation will occur to traders who practice the concept of pay,

receive and use, namely e-commerce. Besides, the majority of consumers only review products and services on the internet, not to buy.

In addition, the methods of fraud committed by online shoppers are quite varied, ranging from false proof of transfer to even payment that does not match the amount. There also are some users who intend to cheat and fail to attack with the intention of damaging the reputation of the web store. The method of obtaining goods is one among the risks of an online business that has got to be considered as losing consumers when the goods being sold aren't available. Items that are spent and refilled for the long term will make the business lose plenty of potential buyers. If the online business uses dropship or reseller service, the challenge is the availability of those items at suppliers. The solution for this problem is to ensure collaboration with suppliers who are always ready and able to communicate well to build an excellent connection not only with consumers but also with competitors.

#### E. Delay in delivery

Delay in delivery can be a lot of factors which are traffic jams or logistic problems, website seller crash and mass of order. Sturdy and ideal logistic service and platform are vital points of success for online sellers [53] since most or majority of customers are impatient. Sometimes logistics companies take up to 5 working days to deliver goods in a country in which customers prefer to shop physically, seeing that they can see the product face to face and touch it. There are some products that are difficult to estimate. This becomes more crucial as weather also becomes one of the reasons for delaying. Maybe in Malaysia, we cannot see it as the proper reason and excuse for delay but in a country that has 4 seasons it will become more of a problem. For instance, in winter the snow is thick and most of the roads are closed. These insulting logistics companies must delay their schedule.

Limited logistics hub is also one of main reasons customer goods are stuck [54] especially during sale season and they also face difficulty to fulfil the high demand of customers as they buy a mass quantity of goods. During Movement Control Order (MCO) become a big crisis to logistic company as the movement have been restricted by government along with mass of order, logistic company having difficult time guarantee the arrival date of goods. Along with this logistic companies receive a lot of complaints because they did not have abilities to keep their promise and at the same time these issues tamed companies' image. customers change their courier to another. They also cannot add more staff to make the process become faster as the government also restricted the number of staff working at one time as the Standard Operating Procedure (SOP) must be complied. From time-to-time companies have to reject orders as they reach the maximum number of orders because they are afraid, they cannot cross over the time. For example, Lazada and Shopee launch sale season on 12 December, resulting in mass order from customers as their warehouse, and facility have limits and will cause the delay in delivery of the goods to the customer.

### VIII. SOLUTION TO SYSTEM BREAKDOWN

#### A. Security issue

Dealing with e-commerce can be quite a hassle sometimes because there's a lot of need to take care of involving the security issues as one the main threats for ecommerce companies. There are more than five security threats that could bring damage to companies if not taken care properly. Companies working with personal data should be concerned and prioritize in preventing the threat. In e-commerce there are few security tools that can be used such as encryption software, firewalls for hardware and software and

common security such as password and lock and bar specifically for network operation centers. One of the purposes of security tools is to control what resources users used to access the system, keeping data of sale and transaction as a proof and to protect the data from any virus or hacker that intended to sell the financial information for money purposes. Data usually contains information of secure payment that is properly encoded during dispatch.

There are three types of security threats in e-commerce. The first one is denial of service or DOS which consists of spamming and virus attacks. Spam or Sending and Posting Advertisement in Mass is a form of disruption in Internet activity, usually in the form of numerous orders, which people do not even like to receive. It mostly an ad sent without first obtaining permission from the recipient such as spam of voice phishing and promotion spam. A computer virus is a small software program that spreads from one computer to another and interferes with the operation of a computer. Server threat such as computer viruses can damage or erase data on a computer.

The second type of e-commerce treat is unauthorized access. Access is a type of system that only a particular number of entries or can be called as a mean permission to enter. It limits the use and distribution of information, settings and general use of the system. Without access, user cannot enter the website that they want and if it was hacked, the system could log down thus disturbing the operation. The third one is theft and fraud. The crimes categorized in cyber especially in social media crimes include online fraud, credit card fraud, identity theft and data intrusion. Fraud means forgery and impersonation of identity commonly in sending messages via email for sabotaging the victim for personal interests. We can also call this type as communication channel treat

To solve these issues, there are a few main ways that can be followed. The most important guideline for companies is that they should prioritize improving the security of websites by fixing the security vulnerabilities. It is important to maintain and update every software product that was used because viruses always attack the system that has no solid protection and has gone weaker [55]. Changing to the new software system can improve the motion to a more practical and secured operation. Updating the system to the latest and newest one after some time helps to improve its safety thus reducing the risk of virus attack as it fixes the system feature by improving functionality and improving the speed of the application and the system.

Having backup data is also crucial for every corporation as the chance of losing files and data is very easy and inaccessible on the current data could happen anytime. Keeping the data in memory card, external hard disk and into CD/DVD or even in cloud storage as a backup data could ease entrepreneurs in case any theft or any unexpected disaster such as earthquake or flood happened. The last method to increase cyber security is for companies to hire cyber security experts. Cybersecurity experts can solve a high range of problems such as in security itself which was widely capable of repairing it by majority of the experts, network security, firewall, cloud, data protection and also in intrusion detection. Thus, hiring experts significant to overseeing any issues involving the securities of ecommerce.

#### B. Return and refunds on product

E-commerce allows us to shop without having to travel to a store or shopping centre. This is quite useful. However, there are downsides when issues arise, such as receiving things that are not what was bought or when the goods ordered are insufficient and arrive in a damaged state, rendering them unusable. If we purchase the item straight from the business, all we need to do is return it along with the

receipt to receive a refund or exchange for a new one. When it comes to internet purchases, there will inevitably be issues with returns and refunds.

Certain retailers provide discounted merchandise. However, because returns and refunds are somewhat complicated. customers will avoid returning to the store for fear of being harmed. Returns and refunds are difficult to get. Sellers sometimes overlook this issue since they believe customers will continue to recur. After all, their product is inexpensive, but they overlook the importance of client happiness when purchasing an item. Certain merchants may not explicitly mention that they do not accept returns or refunds. This will be inconvenient for customers if something does not satisfy them [56].

As a result, the seller's return and refund policy must be transparent. Ascertain that customers may quickly access thorough information on your Terms & Conditions and FAQs pages, and that the policy is prominently displayed, for instance, on Shopee. A vendor must maintain their refusal to accept returns and refunds by expressing some criteria and evidence that they will allow returns and refunds.

Avoid using critical phrases in your policy language. Phrases such as "you are desired" and "you must" can seem impolite and scare customers away from your store out of fear of not receiving returns and refunds. Even the procedure returns and refunds is rather cumbersome. As a starting point for your response, attempt to soften your wording. Make a decision. Consider offering a variety of shipping, payment, and refund options, as well as unique perks such as coupons and discounts to customers who are dissatisfied with their purchase. For instance, offer a half price voucher on things that are not eligible for returns or refunds due to their non-compliance with return and refund regulations, which will benefit both parties [57]. Bear in mind that returns and refunds are an integral element of providing outstanding customer service. Bear in mind that customer service is a representation of your brand and the first step toward establishing consumer loyalty.

#### IX. CONCLUSION

Online sales of goods and services are referred to as ecommerce. Without needing to meet in person, businesses can use the eCommerce platform to benefit. Sellers can contact buyers. There are no restrictions on corporate or nationality levels. Face of platform transcends environmental limits and needs. This is by first gathering user data (transactions, browsing, and payment) and then modelling their behavior (hobbies model, credit model, etc.). They are then disseminated via numerous marketing platforms. Reputable online retailers have an edge in collecting big data due to their advanced online data platforms provide comprehensive services and solutions. It also integrates and analyses data from several sources, identifies users, and tracks, stores, and identifies data to improve basic resources forecasting. The huge data is studied. Creating a user profile is crucial for categorizing customers and implementing a precise marketing campaign. Firms must understand their clients' demands and deliver emails to the right individuals at the right time. Too much repetition will irritate customers. The language chosen should be creative enough to catch the user's attention.

An e-commerce company can use social media to promote itself. A person's social influence is their capacity to convince others. Spreading messages, ideas, and information via social influence 21st century technology and society are rapidly changing. Customers prefer online shopping over in-person shopping because it is more convenient and fits into their schedule. A chance to improve their e-commerce platform and attract more

customers. Companies can utilize webbased decision support systems like recommender systems to reach their target market and increase sales. Businesses utilize social media to advertise their ecommerce platform to online shoppers. So they'll judge the reviews accordingly. This in turn affects the company's revenue and subsequently effects new customers. Aside from that, social media has been utilized to increase brand awareness and build client loyalty. This helps marketing create a better monthly sales plan to fulfil company goals. Using psychology to entice potential customers. The product must meet the expectations of previous buyers. Online enterprises are safer to start. The low cost of starting an internet has enticed entrepreneurs. business Despite the obvious advantages ecommerce, local entrepreneurs confront various challenges. Changing the product photo's angle also enhances the ad's appeal. For fair competition and brand protection. Customers expect sellers to be available 24/7 to help solve issues, thus sellers cannot take a vacation unless they hire someone to do so. Because of this, distrust ecommerce. consumers Consumers value product quality more. This may cost management money and force management to appease stakeholders. One of the risks of an online business is losing clients due to nonavailability of merchandise.

Concerns about security, one of the main threats to e-commerce businesses, can make dealing with e-commerce a hassle at times. Unaddressed security issues can cost businesses millions of dollars. Security tools also keep track of sales and transactions, and protect data from viruses or hackers looking to sell it for profit. Typically, data includes encrypted payment information sent via email.

These issues can be addressed in several ways. Businesses should priorities website security by addressing security flaws. Viruses will always attack a system that lacks protection and has become weaker. Upgrading to a new software system can make the operation more efficient and safer. **Experts** cybersecurity can handle a wide range of including security, security, firewalls, cloud computing, data protection, and intrusion detection. Hiring professionals is critical to managing esecurity issues. commerce's. E-commerce allows us to shop without going to a store or mall. This is beneficial. When problems arise, such as receiving items that are not what was purchased or goods that are inadequate and damaged, the drawbacks are obvious. Refunds or exchanges are available for items purchased directly from the business. Returns and refunds issues are unavoidable when shopping online.

Certain retailers provide reducedpriced items. Returns and refunds are challenging to get. Certain sellers may fail to state plainly that they do not accept returns or refunds. Customers will be inconvenienced if anything does not satisfy them. Sellers must use softer language to avoid buyers being angry or giving the store a negative rating due to their inability to conduct returns and refunds. Consumers must be astute in order to win the hearts of customers so that they will return to the store and will not regret shopping via e commerce.

It is hoped that more consumers will use e commerce so that they can help sellers affected by covid-19 and also be able to improve the country's economy. There is a lot of evidence that shows the country's economy is growing due to the increase in users who use e commerce to do their daily business.

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