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# Digital transformation in Retail industry

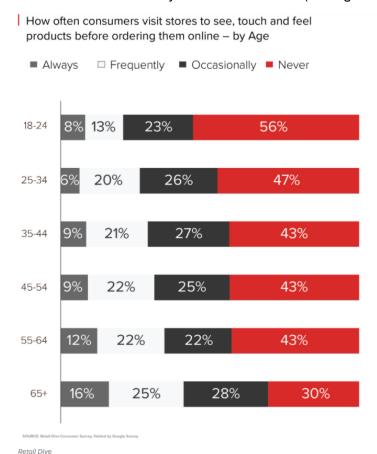
## **Abstract**

As technology advances, retail industry ought to investigate in digitalizing their business through upgrades on their brick-and-mortar store to e-commerce to increase its market penetration as well as efficiency of daily operations. This article reviews the potential effects and drawbacks on retail industry digitalizing to e-commerce business as well as observing how organization revolutionize their business in the retail industry.

Keywords: E-commerce, Business-to-Consumer, Digital transformation

# **Introduction**

Former retail industry are brick-and-mortar stores that offers product and services to consumers in person. Digital innovation was minimal and only offers electronic payment such as Visa or MasterCard. However, impact on cost associated with capital and labor such as rental and utility expenses, cost of inventory and training of employees are costly to maintain. Due to advantage of physical shopping experience where sample of products or services and customer service are provided, some customer still prefers to shop at traditional stores. It is estimated that overall, 8% to 16% of customers often visits, 13% to 25% frequently visits and 23% to 28% occasionally still visit the stores (see figure 1).

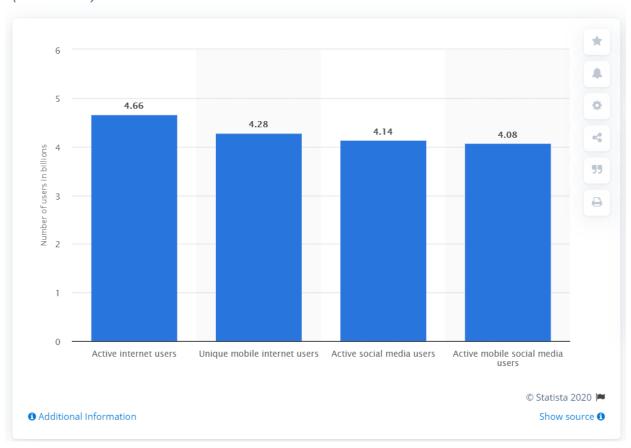


(figure 1) (Why many shoppers go to stores before buying online, 2020)

E-commerce (electronic or internet commerce) is the activity of buying or selling of goods on online platform via Internet. It uses information and communication technology to support business exchange through data, systems, and tools such as shopping on mobile application and online payment encryption for both online buyers and sellers to transact. (Ecommerce 101 + History of Online Shopping (2020) | BigCommerce, 2020). With the implementation of digital innovation, traditional businesses could venture into business-to-consumer ecommerce to reduce the cost of assets, increase its market shares and penetration, provide customization, and gain competitive advantage via omnichannel retailing over major ecommerce businesses. As of October 2020, the total population of global digital users estimated to be 4.66billions (see figure 2) and approximately 30% to 56% from different age group purchase directly from online stores (see figure 1). Setting online stores activates search engine visibility that attracts potential and existing global customers, and it allows additional information to be readily available as well as providing customer service anytime. The advantage of e-commerce is the convenience offered to customers as it eliminates travel time and cost by effortlessly searching desired products on the webpage or its mobile application. (KHURANA, 2020).

# Global digital population as of October 2020

(in billions)



(figure2) (Clement, 2020)

## **Information Systems Management Issues**

# **Economic, Ethical and Legal**

Establishing business-to-consumer e-commerce incurs additional essential operational cost ranging from infrastructure upgrades to availability of skill employees to compete with online merchants. By transacting online, firms are vulnerable to both legal and ethical issues relating to consumer's data privacy and information security. Without adhering to regulations, hefty fines will be imposed by authorities on firms, resulting in business risk and losses. Additionally, firms are prone to online legal sales tax without having an actual physical store located within boundaries. This gives rise to risk in increase tax bracket implemented by the government for businesses with increase market shares.

# **Channel retailing and Technology**

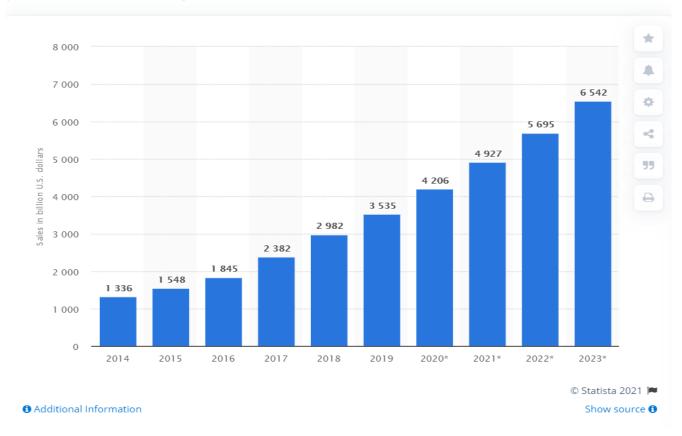
Omnichannel retailing is a unified joint approach to e-commerce across all channels such as social media, online marketplace or any online browser on any devices that has internet access. Observation made by McKinsey Research and Harvard Business Review where they found out that the mean time of consumer spent on shopping from omni-channel retailers are 4% and 10% more in store and online respectively than single-channel customers. Further study made by IDC Retail Insights research where they report an increase of 5 to 10% in profitability from customers' loyalty and 30% higher customer lifetime value than shoppers using single channel such as catalogue and mail (Navot, 2020). Furthermore, competition rise as technology advances and competitors who incorporates technology earlier gains competitive advantage as they provide better shopping experience, such as implementing augmented reality and image-recognition of desired products.

# **Discussion and arguments**

Overall trend for worldwide retail e-commerce has recently dominated traditional retail industry where total sales amounted to USD\$4.206 trillion in 2020 from USD\$1.336 trillion in 2014. Furthermore, statistician projected a growth of USD\$6,542 trillion in 2023 (see figure 3). The top largest e-commerce market dominated by China, United States and United Kingdom, has a total retail shares of 15.9%, 7.5%, 14.5% respectively, resulting in attractive target market for retail e-commerce. With current acceleration on technology, at least 70% of business will adopt internet of things (IoT) across all devices by 2021 to further enhance shopping experience. Presently, it has 7 billion connected IoT devices and projected growth of 10billion and 22billion by 2020 and 2025, respectively. (What is the Internet of Things (IoT)?, 2021). Below is the discussion for the case study of Tesco and Ikea on adoption of e-commerce.

# Retail e-commerce sales worldwide from 2014 to 2023

(in billion U.S. dollars)



(figure 3) (Global retail e-commerce market size 2014-2023 | Statista, 2021)

#### **Tesco**

Tesco was founded in the United Kingdom in 1919 where it sells high-end market stalls. In 1956, the retailer opened its first supermarket store during the era of rapid growth in retail industry in 1900's, which eventually led to expanding thousands of stores internationally. Tesco incurred additional operational cost on transiting to e-commerce by launching its first online grocery store "Tesco.com" in 2000 and non-food website "Tesco Direct" in 2006. However, "Tesco Direct" website produced losses due to high costs fulfilment and online marketing that which led to poor product quality. As a result, general merchandise falls to 0.4% and online sales fall further by 11.3% in 2018. Hence, the company invested in one platform by conglomerating both food and non-food business to "Tesco.com" (Hammett, 2021).

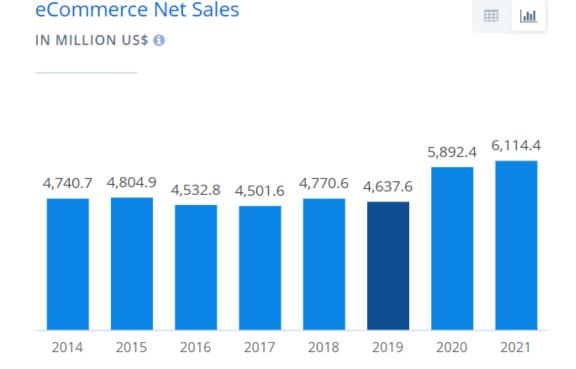
Competition rises as technology advances and competitors like Amazon fresh, implemented omni-channelling and innovative technology improvement by providing grocery delivery and self-service pickups. Similarly, in 2011, Tesco competes by offering technology improvement and omni-channelling through "click and collect" self-collection point, where it offers self-service pickup at nearest destination at a lower price than home delivery. This allows customer to shop at their own convenience without being physically present.

However, online businesses are susceptible to risks involving ethical and legal issue. In 2020, Tesco encountered ethical issue regarding on data privacy where cyber-attack made on 600,000 loyalty Clubcard's' points and vouchers that have been fraudulently redeemed by

unauthorized users. The organization was fast to detect and protect its customer by restricting access to individual account. Hence, Tesco rectify the problem by issuing new loyalty Clubcard to 600,000 affected customers, cancelled and reimbursed vouchers and points lost (Muncaster, 2021). Additionally, firms are legally liable to double tax on both online and physical store. Tesco had to deal with both online and physical store legal sales tax in local market and thus, the firm and other leading retailers requested the Chancellor of UK, Rishi Subak to permanently reduce tax imposed on business rates on retail property owners, ensuring that online retailers pay tax fairly.

Nevertheless, Tesco was quick to accommodate changes in consumer's spending habit in UK during 2020 pandemic. Subsequently, overall online sales surged to 69% and grew further to 90% in final three months fulfilling up to 1.5 million online orders per week. Totalled to USD5,892billion in 2020 and further growth of sales to USD6,114billion in 2021 (see figure 4). Tesco created another 16,000 new permanent jobs in UK to fulfil up to 1.5million orders per week and further invest on 25 urban micro-fulfilment centres.

Tesco may have adopted e-commerce late, but it managed its business operation well by overcoming difficulties regarding on issues relating to e-commerce. Thus, with successful implementation comes with promising results.



(figure 4) (tesco.com revenue | ecommerceDB.com, 2021)

# Ikea

Ikea is the world's leading furniture retailer founded in 1943. It was a traditional brick-to-mortar retailers until 2009, where it shifts to omnichannel retailing by selling online. Due to impact on its low prices, it is slow to progress in adopting digital innovation strategy. Additionally, Ikea assumed that its current business operation exceeds expectation and hence, was slow to perceive changes in consumer preference and spending habit.

Transiting to online business requires heavy investment in technological infrastructures. Ikea started e-commerce in 2009 but due to issues in incorporating low-cost product and high delivery cost associated with online purchase, its profit fall by 40% to 1.47billion euro. Thus, the firm started to minimize cost by reducing 7,500 redundant jobs and create another 11,500 new jobs globally to manage the transition.

Given the rise in competition on technology advancement in e-commerce, big competitors such as Alibaba has embedded image-recognition onto their website's search engine bar for quicker shopping experience. Ikea was slow to progress online and was falling behind competitors until September 2017, where it started to enhance its technology by launching an augmented reality application called "Ikea Place" that allows customer to personalize furniture from its available product catalog onto their homes virtually via their smartphone camera.

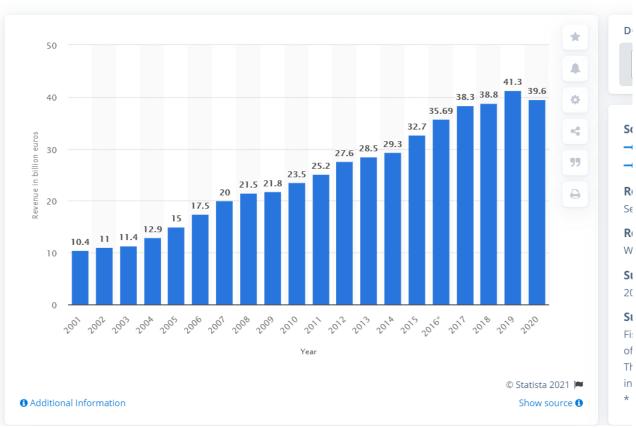
By transacting online, businesses are vulnerable to legal and ethical issues if regulations are not adhered. Ikea is well known for its strictness on legal and ethical business dealings but in 2019, it violated customer's data privacy caused by employees who mistakenly send 410 individual e-mail address to a promotional mailer that leaked customer's confidential information. The company compromised by reviewing internal procedures, technology system, training its employees as well as sending apology letters to affected individuals (MENON, 2021). Furthermore, the company was fined 10,000 pounds by Spanish Data Protection Authority for violation of cookie policy on their official website as the firm failed to provide management system or cookie configuration option that allows users to delete them selectively after accepting the terms. The company rectified by including option panel for customers to be informed about cookie used and allow them to browse with selected cookie settings such as technical, analytical, preference and marketing cookies that is removeable at browser setting.

After successful implementation of e-commerce, Ikea's online sales soared for the first time with annual sales above 40billion euros but slight fall to 39.6billion euros in 2020 due to coronavirus pandemic (see figure 5). Totaling to 445 worldwide stores and 50 e-commerce market with at least 800 million visitors in 2020 and contribution from e-commerce net sales rising at USD7,321 million (see figure 6).

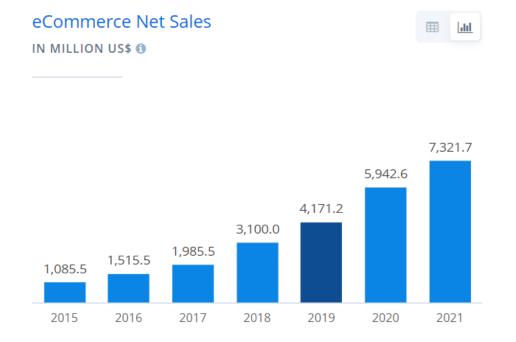
Even though Ikea is slow in progressing online, it adopted the right approach to e-commerce. The organization managed to balance its low product prices with innovative digital transformation to keep pace with competitors by reducing inefficient operation and invest it in upgrading its technology.

# Annual revenue of the IKEA Group worldwide from 2001 to 2020

(in billion euros)



(figure 5) (IKEA: annual revenue 2001-2019 | Statista, 2021)



(figure 6) (ikea.com revenue | ecommerceDB.com, 2021)

#### Conclusion

Although digital transformation incurs additional cost and risks, benefits reaped from investing such transition is substantial. With an on-going rise in global population of technology users, the advantage of traditional retail industry will be taken over by e-commerce business model. Hence, business who adopts earlier with the correct approach tends to prolong the survivability of the business and it gives the company a competitive advantage over competitors in the industry. As new entrants venture into e-commerce, without a doubt that competitiveness will increase, it will be tougher for existing companies to compete if they do not adopt the right approach to e-commerce and its marketing strategy. Thus, it leads to falling behind competitors and exiting the industry. (Tesco vs Ikea adoption to e-commerce).

# **Critical Reflection**

## **Business Intelligence and Data security**

As traditional retailer expands to e-commerce, its system is incapable of storing larger and more complex data. By utilizing business intelligence tools, it converts complex data collection into meaningful insight that aids in the quality of managerial decision-making. Data mining is a commonly used tool due to its precision, refined knowledge and insights extracted from data that enables firm to analyse consumer behaviour pattern and anticipate their spending habit. This allows the organization to maximize business opportunities, minimize business risks and reduce fraudulent transactions. However, primary data used must be accurate and reliable as it would heavily affect the decision made by organization and its survivability. In conjunction with valuable data stored in the organization, it comes with concern of its data security. Especially for data mining where privacy concerns as the organization is harvesting huge amounts of personal data that can be shared with other organizations. Therefore, it is of paramount importance to assign roles within the organization on the rights to access the data as well as effectively introduce data security strategy and policies to protect the data from unauthorized changes as organization would still be prone to security breaches that may be caused by human behaviour and not its system. Consequently, referring to Ikea case study above where the firm made poor managerial decision by continuing its current operation without adapting to changes in consumer spending pattern. This would negatively affect its profit margin as well as competitiveness that could result in organization to shrink or completely exits the industry. Therefore, Ikea ought to use data mining as a tool to analyse trends, predict consumer's spending behaviour and amend their operation accordingly to minimize risk and maximize its opportunities. Furthermore, Ikea violated data privacy caused by human behaviour as employee accidentally leaked customer's confidential information. Hence, the firm should strengthen its data security and policies by tightening data security policies on the rights to access the data as well as educating and training both internal and external employees on the amended data policies (Cordella, 2017).

### **Cybercrime and IT Security**

Additionally, businesses are vulnerable to cybercrime which affects its daily business operation. Cybercrimes are not limited to virus and spam but other exploits such as identity theft where unauthorized users steal an individual's personal information and take advantage of it by committing fraud, crimes or sell illicitly on illegal market. To safeguard from such cyberattacks, it is important to invest heavily on data security system, establish good security policy as well as minimizing losses through preventive measures such as educating employees and contract workers on security issues by prohibiting password usage, strict

access controls, limiting network access via firewall, regular updates on antivirus software and periodic IT security audit to evaluate organizations' policies. Without a proper policy security measures, it is detrimental to the organization that result in hefty fines imposed by authorities who oversees data security and consumer privacy such as Federal Trade Commission (FTC), as well as decrease in market shares. Hence, it is important for the organization to implement effective and stringent data security strategy and policies to protect and minimize business losses that could be avoided. This can be referred to Tesco's case study, where the firm was cyber-attacked by unauthorized users on the loyalty Clubcard membership. Therefore, to safeguard from such attacks, Tesco should be aware of cybercrime activities by conducting periodic security audit and implement changes accordingly to its data security strategy and policies by investing in enhancing its security system as well as stringent data security policies. Additionally, the organization could limit network access based on security policies via firewall and regular updates on antivirus software security system. This protects and prevents the business from hefty fines from regulations and losses incurred on its operation (Reynolds, 2016).

**Total word count: 2433** 

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