Digital Business Strategies in the Era of Web 4.0: An Analysis of Dell's Opportunities, Challenges, and Marketing Approaches

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Abstract. With the development of Web 4.0, digital business become an essential part of marketing nowadays which inspire more company build digital business strategy. On this essay, Dell as an example will be analyzed on opportunities and challenges with web 4.0. On this essay, RACE model will be applied to analyze the issues facing by Dell which help them to get engagement with potential customers and covert these customers to realize marketing goals. And SERVQUAL model is used to find weaknesses of Dell on their online marketing. After exploring current situation, revised strategy including segmenting, positioning, and targeting will be given to help Dell improve their relationships between customers and company. Finally, some problems of laws need to pay attention to.

Keywords: Dell, digital business, segmentation, targeting and positioning, performance measurement.

1. Introduction

Dell is a technology company and uses many technologies to improve its marketing performance. According to the PESTEL, it is evident that economic forces help business development, everyone to everyone economy has already begun(Leavy, 2014), which will more focus on customers, and it will require the company to respond to the needs of customers and the changes of market faster(Berman and Marshall, 2014). The foundation of economic change is the technological forces. It is worth mentioning that technology forces change the behaviors of customers, during Web 4.0, customers can get more information online about their products and they are more likely to shop online (Rowley, 1996). Also, more businesses will use search engine optimization to improve the experience of visitors and help them rank higher(Berman and Katona, 2013). And communication methods have changed a lot, which changed from SMS to social media (Chaffey and Smith, 2019). Using social media to interact with customers is an important strategy for marketing because social media not only can be used as the tool to forecast the customer likes but also can engage with customers(Saravanakumar and Suganthalakshmi, 2012). However, those technology forces will influence the safety of information, like clouding computing which will collect the data from users(Albugmi et al., 2016), and recently, more law forces have been applied to protect these data. After analyzing, how to help Dell to get used to the challenging environment and improve its digital and social media presence will be discussed following.

2. Critical issues and key problems

RACE analysis (figure 1):

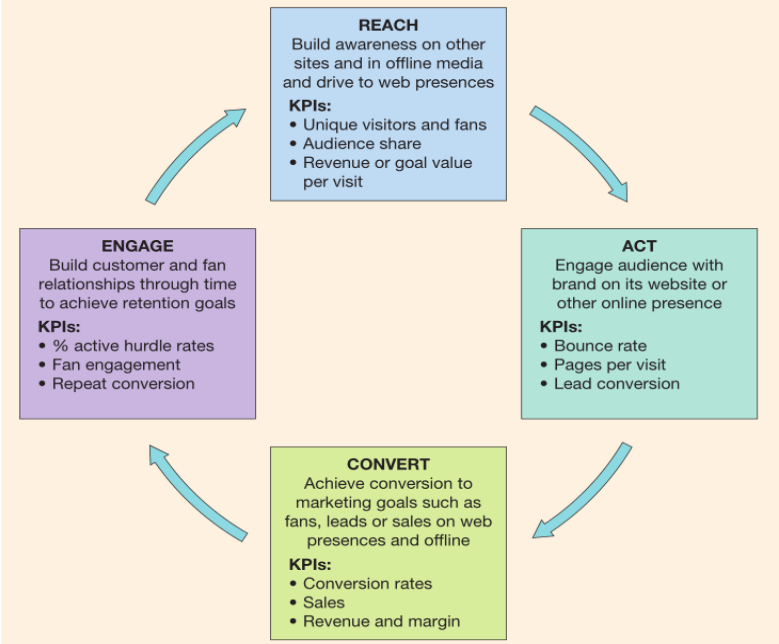

Figure 1. RACE

Source: Chaffey and Smith (2019)

Reach: how the company gets access to its customers always plays an important role in marketing. Companies always use e-communications tools (figure 2) or media channels to reach customers (Chaffey and Smith, 2019). Nowadays, the popularity of using search engine optimization to attract more customers is increasing which leads to more attention on the clicks of the website of the company. When customers search online, they will use key phrases that always rely on their awareness of the company. Dell already builds their brand by using Google Adwards as paid-search marketing to help the company rank higher which gain more potential customer. However, the expansion of the market will be influenced by the threats of substitute products and services according to Porter's five power model (figure 3). When other companies in the same industry also use a similar method of reaching customers which will increase competition in the same industry.

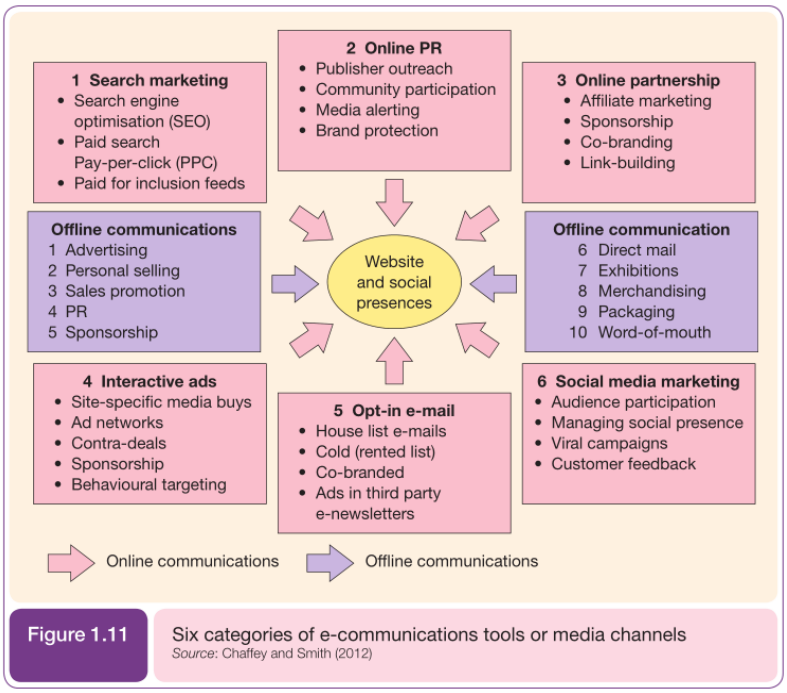

Figure 2. e-communications tools or media channels

Source: Chaffey and Smith (2019)

Act: Today, people are more likely to use the website and social media to make interaction(Gharis et al., 2014). Dell has already used social media to track the choices of customers. However, the process of opt-in will bring negative effects on the customers (Chaffey and Smith, 2019). People pay more attention to information security and some unwanted intrusions like viral marketing may make customers lose loyalty(Milne and Rohm, 2018).

Convert: However, when a company decides to use social media to realize more convert, Dell should ensure their alignment of activities on different social media(Kaplan and horizons 2010). And although there is a different function of social media, the company needs to keep its "one voice, one look" (Fitzerpatrik, 2005) or it will impede the process of the conversion.

Engage: Dell uses social media to manage its relationship with customers by using the ground control system to respond the negative comments on social media quickly. Also, Dell notices the difference between business to business and business to customers, it uses different platforms to keep engagement with different stakeholders. Dell uses the extranet to make transactions with large organizations(Baker, 2000).

Engagement on social media stills has challenges for Dell. Different social media will attract different audiences(Kaplan and Haenlein, 2010). Due to the differential strategy of most social media, content posting on social media needs to be aligned with the characteristic of these platforms(Nelson-Field and Riebe, 2011). Dell pays major attention to listening to customers' needs and may ignore how to engage with different types of audiences according to their platforms. Also, too many social media existing bring with the problem of media fragmentation which leads to a fragmented market (Nelson-Field and Riebe, 2011). Dell collects information from different communications channels but does not achieve synergistic effect.



Figure 3. Porter's five power
Source: Chaffey and Smith (2019)

3. Engagement analysis

The traditional marketing funnel (Figure 4) cannot satisfy today's marketing while marketing becomes more complex (Figure 5) which influences the process of engagement (Haven, Bernoff, and Glass, 2007). Although Dell uses the technology to improve their engagement, it is lack the integration of involvement, interaction, intimacy, and influence(Haven, Bernoff, and Glass, 2007)(Figure 6). Dell does not use enough tools to measure the performance of Dell on its digital marketing strategy. Also, whether customers are satisfied with the company's engagement and after these activities, customers' loyalty is increased or not still cannot be found in the engagement of Dell. The majority of those activities on social media aim to solve the problems about products and make interaction with customers (Chaffey and Smith, 2019). But nowadays, companies will more focus on the data collected from the customer during these activities and analyze these data to provide more accurate marketing information to the customers(Elena, 2016).

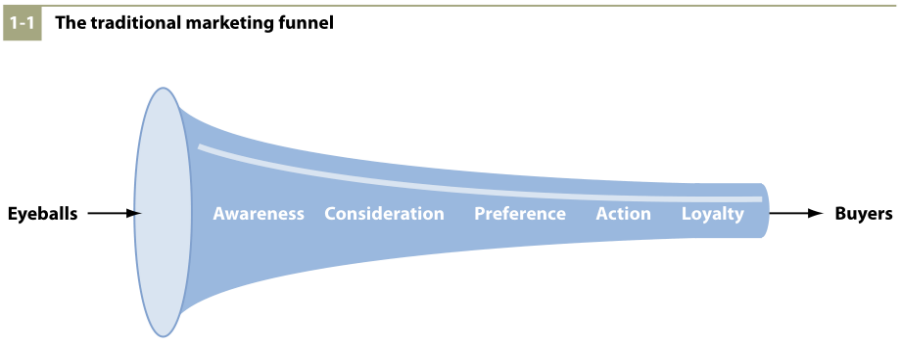

Figure 4. Traditional marketing funnel
Source: Forrester Research, Inc.(2007)

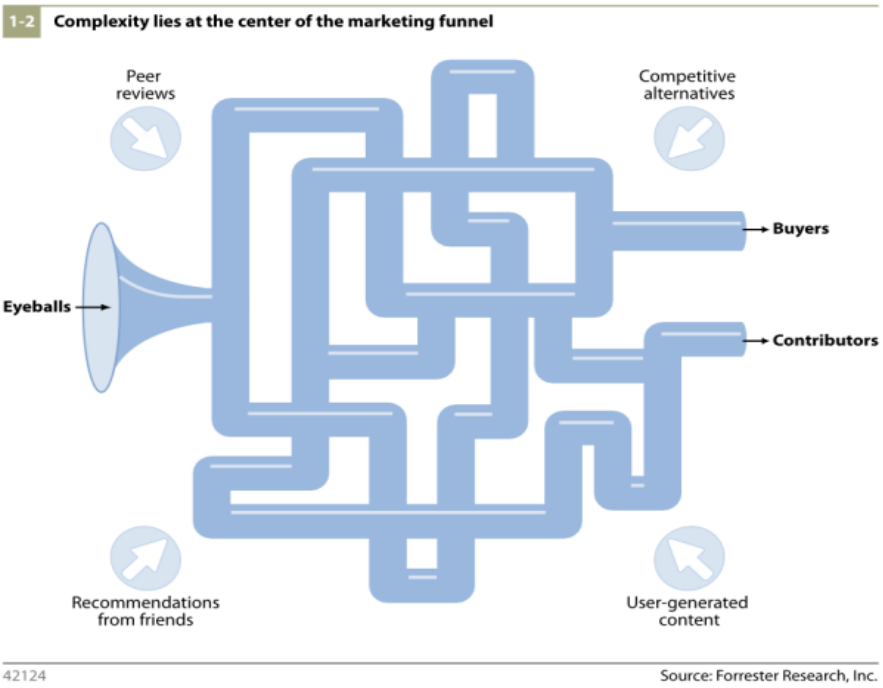

Figure 5. New marketing funnel
Source: Forrester Research, Inc.(2007)

Figure 2 The Four Components Of Engagement

INVOLVEMENT	INTERACTION	INTIMACY	INFLUENCE
What To Track			
• Site visits • Time spent • Pages viewed • Search keywords • Navigation paths • Site logins	• Contributed comments to blogs • Quantity/frequency of written reviews, blog comments, forum discussions, and UGC	• Sentiment tracking on third-party sites (blogs, reviews, forums, etc.) • Sentiment tracking of internal customer contributions • Opinions expressed in customer service calls	• Net Promoter (NP) score • Product/service satisfaction ratings • Brand affinity • Content forwarded to friends • Posts on high-profile blogs
How To Track			
• Web analytics	• eCommerce platforms • Social media platforms	• Brand monitoring • Customer service calls • Surveys	• Brand monitoring • Customer service calls • Surveys

42124 Source: Forrester Research, Inc.

Figure 6. The four components of engagement
Source: Forrester Research, Inc. (2007)

4. SERVQUAL analyze

However, the Online service-quality gap will happen when some factors about the online service cannot be satisfied. SERVQUAL model (Chaffey and Smith, 2019) (figure 7) always will be applied to help the company improve their service online. Whether the website is tangible will influence the engagement with customers while the expectation of users about the website always will be easy-to-use and clear content (Yang et al., 2004). Although Dell tries to use their own website www.dell.com to engage with customers, they lack analyzing from the perspective of customers to find out the needs of customers. Dell needs to emphasize the change from out-bound to in-bound of online presence which will make more engagement with visitors (Milewicz and Saxby, 2013).

Table 7.4 Online elements of service quality

Tangibles	Reliability	Responsiveness	Assurance and empathy
Ease of use	Availability	Download speed	Contacts with call centre
Content quality	Reliability	Email response	Personalisation
Price	Email replies	Call-back	Privacy
		Fulfilment	Security

Figure 7. SERVQUAL (Chaffey and Smith 2012)

After these analysis about Dell. The key problem of DELL is that they did not adjust their engagement for the different lifecycle stages of their relationship marketing effectively and efficiently.

5. STP

5.1. Segmentation

How to identify the preference of customers is difficult for most companies, which influence the strategy of them to target and position (Schlegelmilch, 2022). Dell uses the social group of demographics to segment different kinds of customers' need, but sometimes it is difficult for companies to satisfying all exact requirement of customers (Camilleri, 2018). So, if business wants to keep a closer relationship with customers, Dell may can change their strategy that more focus on customers behaviors like using lifecycle segmentation (Chaffey and Ellis-Chadwick, 2019) (Figure 8).

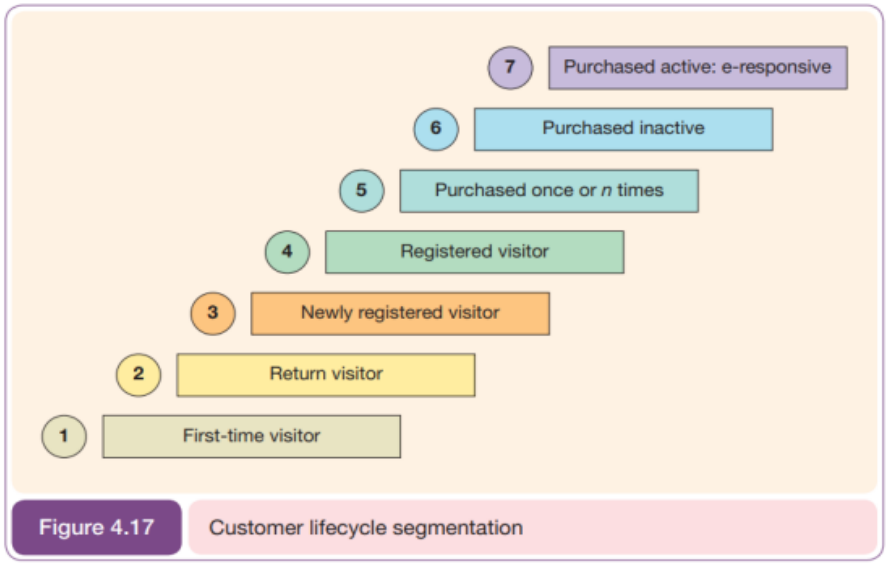

Figure 8. lifecycle segmentation Source: Chaffey and Smith (2019)

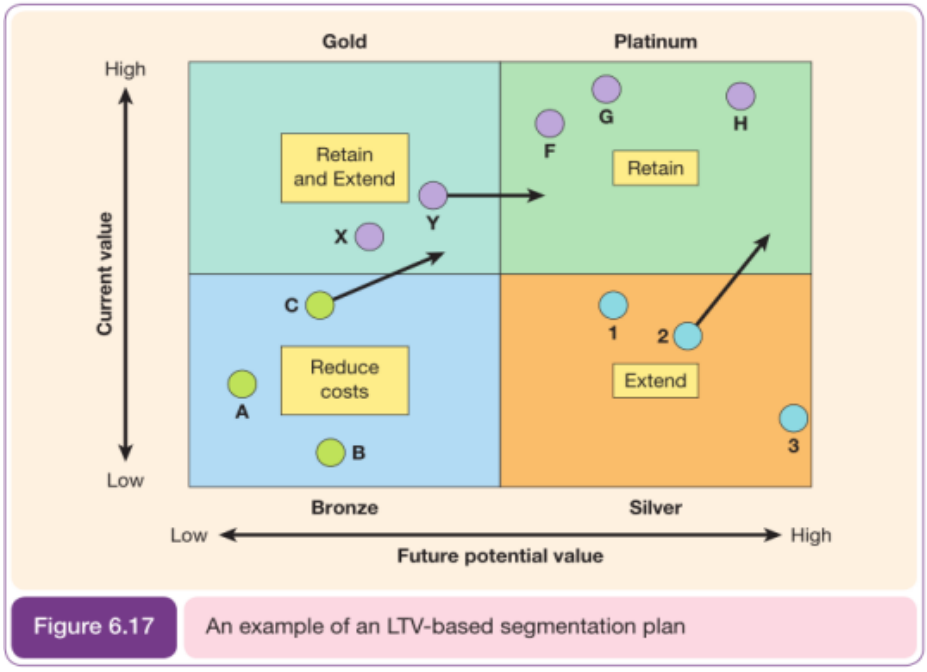

Figure 9. LTV-based segmentation model Source: Chaffey and Smith (2019)

When company use this segmentation, it is easy for company to notice some customers that their contracts are going to expire and Dell can take action to make retention strategy(Hu, Shu and Qiao, 2014).

Also, sometimes company cannot only focus on the ROI on one transaction, they need to find the true value of the customers which is called lifetime value and segment customer relying on their value. This can be a combination of customer lifecycle segmentation. On lifetime value model (Figure 9), customers can rely on the value of the customer to adjust their investment on those customers (Hu, Shu and Qiao, 2014). The resource of company used on the strategy will be more efficient and effective and customer response will be maximum(Lemon and Mark, 2006). (Figure 10).

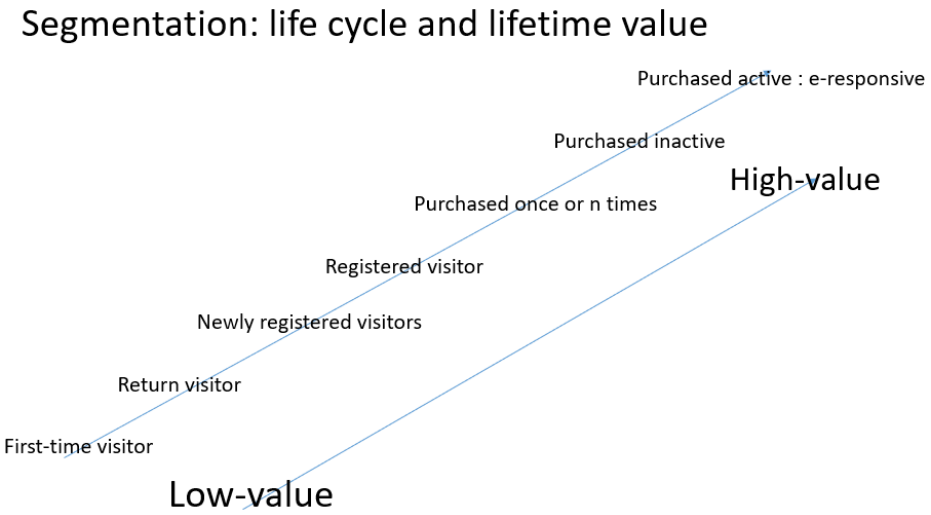

Figure 10. Segmentation: life cycle and lifetime value

5.2. Targeting

The current situation of Dell should target their low-value customers who already have purchased. This group already have certain purchasing experience from Dell and the engagement with them will be important. Targeting firstly should analyze the characterize of this group of customers (Camilleri, 2018). Company can use navigation options to achieve self-identify which will help company to find customers who already purchase from website many times. It is important that use e-retailers'

statistics through cookies to analyze the history of shopping records which will help company to find out how these group of customers behavior and identify their states (Kolesar and Galbraith, 2000).

What is more, company can rely on social interaction communication model to monitor customers behaviors and find what factors to influence the customers decisions (Balio and Casais, 2021). Because customers who bought before already have relationship with Dell, publishing some information about some latest items and discount regularly will help customers stay attention on Dell. Dell can use BuzzSumo which can change their content strategy and identify the most suitable planning on their social media (Peter, 2019).

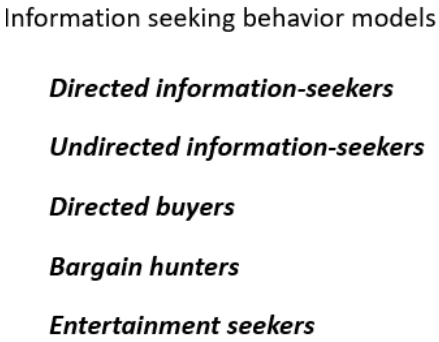

Figure 11. Information seeking behavior models

Also, the social media model can make combination with information seeking behavior model (Figure 11) because people have different preference on information receiving and if company can use this model to find the best way to approach to customer (Breitenbach and van Doren 1998). Because this group already has reached our site before, if company improve the function of website and make targeting group have memorable experience which will attract customer repurchase (Agarwal et al. 2012). (Figure 12)

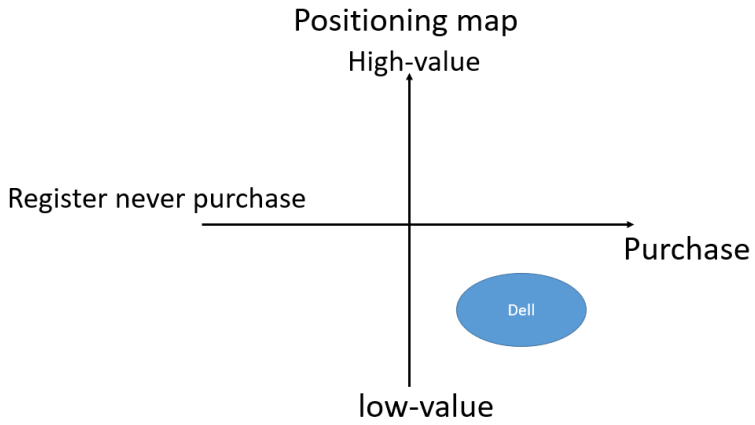

Figure 12. Positioning map

5.3. Positioning

According to SWOT, attacking strategy should be applied (Figure 13). Dell already gains sufficient customers. This strategy will be more rely on the characteristic of the customers. The success of some e-commerce company always matches their segmentation with online value proposition(Varianni and Vaturi,2000).Also, according to the summarize of Porter's original criteria model (Figure 14), company needs improve the online value proposition as differential strategy which help gain differential advantage(Dumitriu et al., 2015). Dell already uses their differential products to maintain the relationship with customers, but their content strategy also should become customized (Halvorson, Rach and Cancilla, 2012). Using online value proposition will make distinguish clear and people can easily know what they can get from this company (Chaffey, 2020).

The organisation	Stengths – S 1. Existing brand 2. Existing customer base 3. Existing distribution	Weaknesses – W 1. Brand perception 2. Intermediary use 3. Technology/skills 4. Cross-channel support
Opportunities – O 1. Cross-selling 2. New markets 3. New services 4. Alliances/co-branding	**SO strategies** Leverage strengths to maximise opportunities **= Attacking strategy**	**WO strategies** Counter weaknesses through exploiting opportunities **= Build strengths for attacking strategy**
Threats – T 1. Customer choice 2. New entrants 3. New competitive products 4. Channel conflicts	**ST strategies** Leverage strengths to minimise threats **= Defensive strategy**	**WT strategies** Counter weaknesses and threats **= Build strengths for defensive strategy**

Figure13. SWOT
Source: Chaffey and Smith (2019)

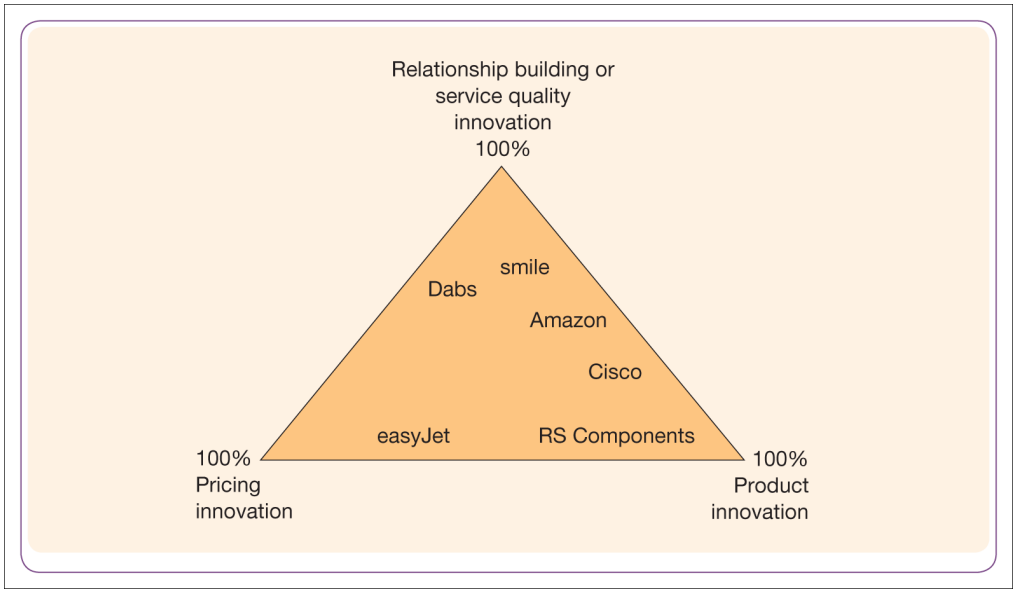

Figure 14. alternative positioning for online service
Source: Chaffey and Smith (2019)

6. Performance measurement

6.1. Creating a performance management system

Performance measurement always is applied to measure the effectiveness and efficiency of internal process(de Waal and Kourtit, 2013). Dell paid a lot of resource on improving digital presence and on this process (Figure 14), so the Dell's goal of the performance measurement is whether digital channels improve the communication with customers and company should measure the performance of the digital channels. During the process of performance, Dell already uses search engine optimism, ground control team and their website as their digital channels to improve communication. Measuring these activities aim to make the effectiveness of digital channels tangible and measurable, this system will review the statistics gained to measure whether is make profit to the company(Melnyk et al., 2014).

6.2. Defining the performance metrics framework

From WebInsights diagnostics framework (Figure 15), there are many key matrixes that need to measure to prove whether our performance achieve our goal. From site promotion, Dell can measure the percentage of all referrals or cost-per-acquisition. Also, company can whether the search engine is effect through checking what keywords customers type into the search engine to reach our website (George, 2010). It will help company to improve their accessibility, availability and visibility while site is essential for customer interaction(Doolin, Burgess and Cooper, 2002). In addition, company can use E-SERVQUAL model (Zeithaml et al., 2002) as matrix to assess the function of site, which can both measure core service scale and recovery scale (Chaffey and Smith, 2019).

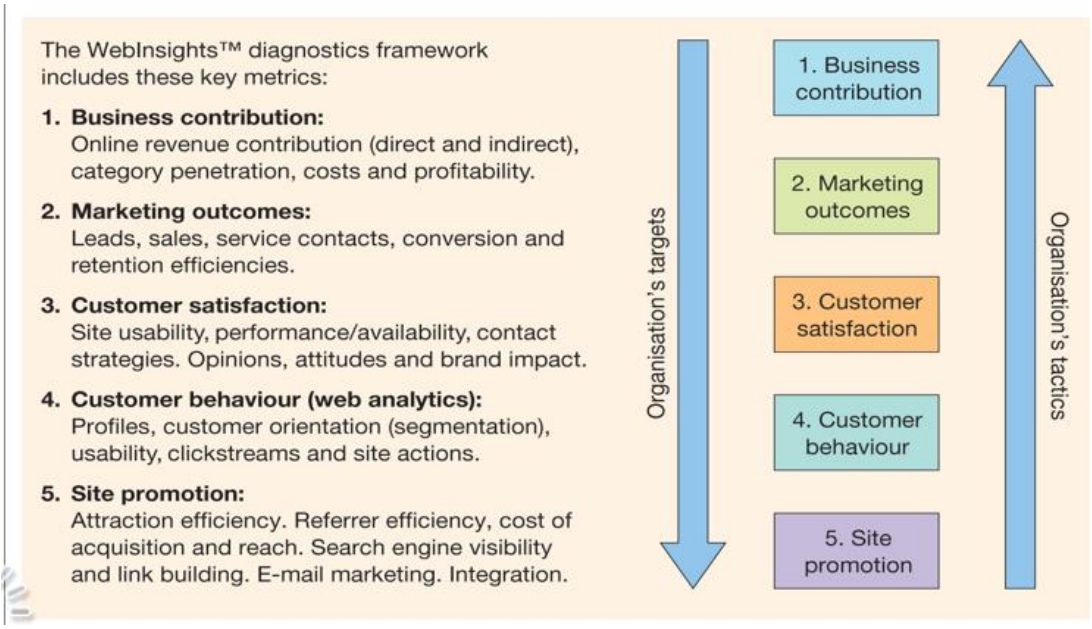

Figure 15. WebInsights diagnostics framework

Source: Chaffey and Smith (2019)

From customer behaviors, once customer get access to the website, company need to track their data by cookie which measure bounce rates for different pages and stickiness. These sources can give information to company about the customers characteristic that can be used to segmentation(Tan Kai Hun and Rashad Yazdanifard, 2014).

From customer satisfaction, customer satisfaction always can be reflected by repurchase and image building of the company(Mccoll-Kennedy and Schneider, 2000). Dell can check service upsets per customer and customer satisfaction levels which is shown by the scores that get from customers(Fečiková, 2004). Company can know the difference between different companies from benchmarking and enhance them to a better brand perception of Dell(Murtaza et al., 2012).

From chancel outcomes, Dell use three-stage order funnel to monitor their website www.dell.com. It will measure visitor to purchase of conversion rate and visitor to register of conversion rate to analyze the statistic about online outcomes. Also, attrition rate is measured during the process of the funnel. Analyzing where the customer gave up order will help company target the problems of their website, which will make the process of purchase visualize(Alina, 2019). From business contribution, the investment of different platforms will get different return. Company should measure the cost that invest to some activities and calculate the return on the investment and profitability. It will help company to reallocate the resource to digital channels and change their strategy (Chaffey and Smith, 2019) (Figure 16).

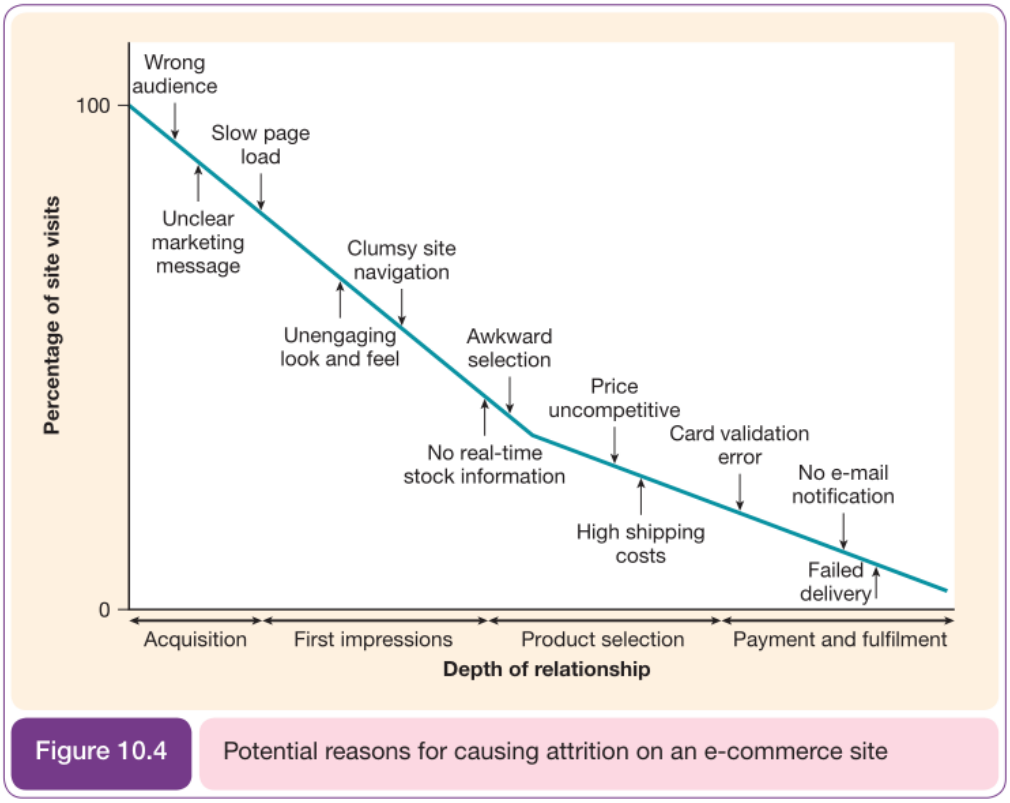

Figure 16. potential reasons for causing attrition on an e-commerce site
Source: Chaffey and Smith (2019)

6.3. Tools and techniques for collecting metrics

After measuring, Dell already uses ground control team as the performance measurement on their customer satisfaction, it may influence by some spam comments which can be improved by natural language processing techniques (Radulescu et al., 2014). Collecting data accurately to measure can also be realized by following tools. What should company do firstly is to collect site-visitor activity data. Data collecting can be realized by log file analyzer(Zaiane, Xin and Han, 1998), and this analyzer has been developed into automated log parsing which can be applied to solve increasing scale data and complexity of the software(Zhu et al., 2019). Also, Dell can use the design for analyze when they design the website. It is beneficial for company to evaluate the different proportion of the visitors (Chaffey and Smith, 2019). In addition, company can use google analyze and Omniture to gain data. Google analyze provides data by time series data and compare data from different channels on a dashboard(Plaza, 2011).

In order to improve customers satisfaction, company can use AB testing to analyze the design of the site and create the control page on the subsequent testing which is known as champion-challenger, which can collect information about customer preference which is helpful for realizing the website personalization(McFarland, 2012). Also, marketing research should be applied to get feedback from customers using tools like SurveyMonkey. And their satisfaction is intangible which can use questionnaires and focus group to become measurable(Malhotra, Peterson and Kleiser, 1999).

However, the reliability of the data always will be questioned(Powell, 2004). Data gained from some tools maybe low-quality and sometimes company cannot get sufficient data from the benchmarking. Also, senior management myopia will influence which lead to failure of the long-term development (Chaffey and Smith, 2019).

7. Solution

In order to solve the case problem, Dell can use the auto-email marketing model relying on the stages of customers on lifecycle (Figure 17), the content of email can be diversity which can capture the needs of customers more accurately. In 2021, email marketing already achieved 8.49 billion dollars revenue and Salesforce Marketing Cloud became the favorite email service providers(Statista, 2021). When company send email to customers regularly which not only can maintain those high-value customers but also can active dormant users (Chaffey and Ellis-Chadwick, 2019). Sending email can be mixed with propensity modelling, which evaluating customer behaviors and create automatic product relationship(Bailey et al., 2009).

Also, the quality of website will affect the customers to make decisions (Ting, Kuo and Li, 2012). Company should rely on SERVQUAL model to improve their customer experience. The service quality may become the key factor to attract customers(Lee and Lin, 2005). Company needs to make their website reliability, the quality of delivering information to the customers will rely on the speed of response from company's website. In order to improve this, company needs to monitor their web servers in service-level agreements (Sharma & Lijuan, 2015). Also, company can use customized pop-up window according to the stages of customers lifecycles to recommend different products to customers (Maglio et al., 2000).

In addition, company can use the combination of the integration marketing communication and customer relationship management to analyze the customers and know the trends of customers in advance(Jenkinson, 2006). McDonald is evidence of success of integration marketing communication which company investigates customers behaviors which enhance the relationship with customers in the end(LI, 2016.). In addition, Dell should more focus on the customer lifetime value (figure 18), which will help the rank of the customers' loyalty(Kim et al., 2006). With this, company can use collaborative filtering which Amazon already has used to recommend the books to visitors(Linden, Smith and York, 2003). This method especially is suitable for company who uses customer lifecycle management because it can help company to precise customers' needs(Shih and Liu, 2008). These solutions will help Dell gain more market share and keep a closer relationship with customers.

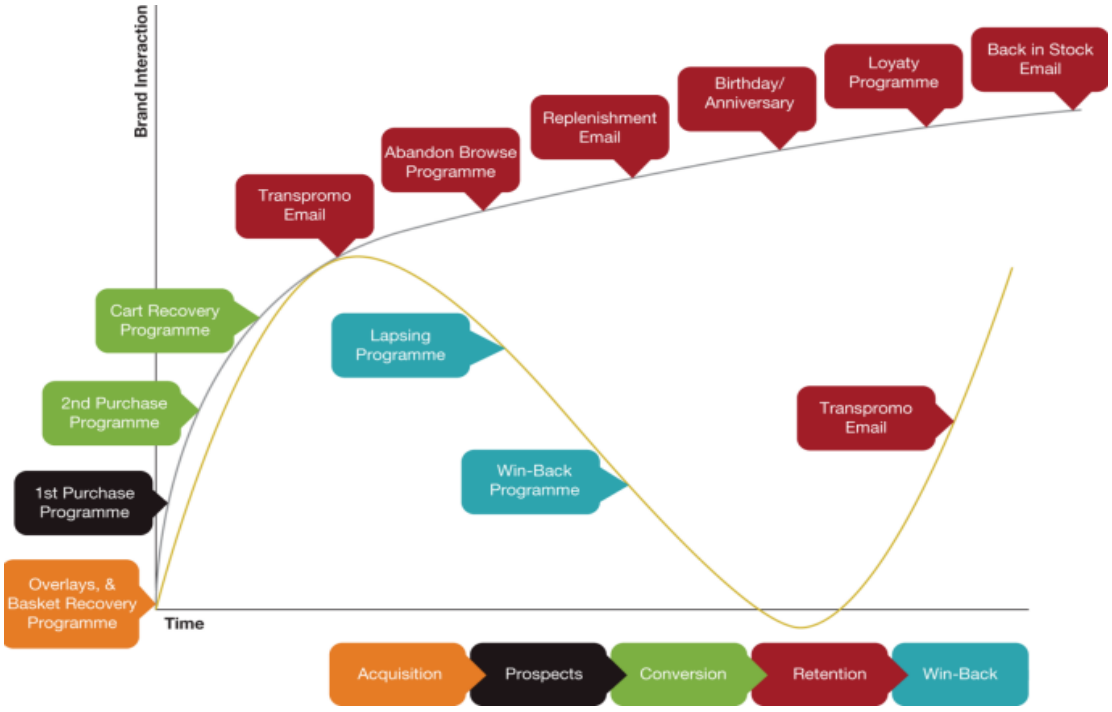

Figure 17. auto lifecycle email marketing

Source: Kath Pay, Holistic Email Marketing (2016) What is lifecycle marketing? https://www.holisticemailmarketing.com/blog/what-is-lifecycle-marketing/ (accessed 30 April 2022).

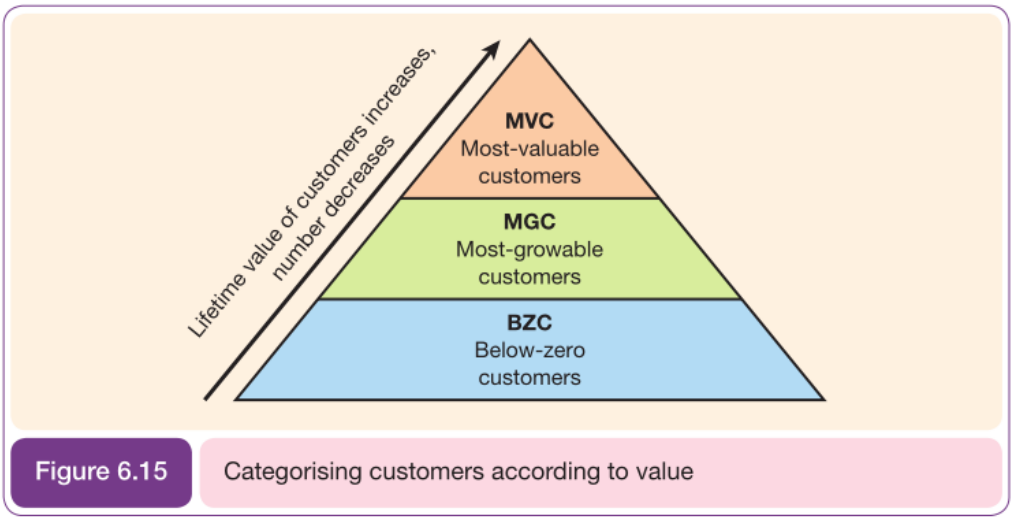

Figure 18. Categorizing customers according to value
Source: Chaffey and Smith (2019)

8. Conclusion

In conclusion, Web 4.0's rapid evolution has revolutionized the business landscape, making digital strategies crucial for modern marketing practices. This essay explored opportunities and challenges through Dell's case study. By employing the RACE model, valuable insights were gained, enabling Dell to effectively engage and convert potential customers, achieving marketing objectives. The SERVQUAL model also highlighted areas for improvement in Dell's online marketing efforts. A comprehensive analysis revealed the need for a revised digital business strategy for Dell, focusing on segmentation, positioning, and targeting. Implementing these strategic enhancements will strengthen customer relationships and enhance the overall experience, keeping Dell ahead in the dynamic digital marketplace. Nevertheless, it's crucial to recognize the legal challenges posed by rapid technological advancements. Vigilance in adhering to online marketing laws and regulations is vital to avoid pitfalls and protect Dell's reputation. As Web 4.0 shapes the future of digital business, companies must adapt their marketing strategies to capitalize on the vast opportunities it offers. Embracing these changes, Dell can lead with a well-crafted digital business strategy. Continuous monitoring and adaptation in the evolving digital environment will maintain Dell's competitive edge and forge lasting customer connections. In a digital-centric world, agility and innovation are essential for success in the era of Web 4.0.

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