

Point of Sale Systems and their Evolving Importance Within the Fast Food Industry

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Abstract

The intent of this paper is to understand the importance of point of sale technologies including their integration and use within the fast food industry. Specifically, automated touch screen ordering systems, POS integration with a network infrastructure, and outsourcing of POS capabilities are analyzed. The information was mined from a combination of web searches and scholarly publications. Findings reveal that self service ordering systems are gaining in popularity and success in many markets. Integrating POS systems into online ordering and a network infrastructure increased efficiency, marketing capabilities, and brand recognition in Domino's pizza chain. Outsourcing POS system capabilities have seen success in certain markets but possess a handful of drawbacks. It is recommended for companies to continue to evaluate the potential that adapting POS technologies can have on their business model and to be aware of customer preferences and trends.

Introduction

Since the introduction of electronic Point of Sales (POS) systems in the retail business industry in the 1970's businesses have been taking advantage of the capabilities these systems provide. On the cutting edge of the POS system usage are fast food companies which rely on them heavily for delivering fast, fresh, and consistent products. In efforts to keep an edge on the competition and keep up barriers to entry many fast food companies integrate evolving POS technology as a vital part of their business model. As the capabilities and potential of modern technology (touch screens, cloud computing) continue to expand fast food businesses have identified the importance of using POS technology to streamline processes and to create a culture of learning accessible to all members of a business organization.

Method of Approach

In examining fast food companies and their use of POS systems a handful of different methods were used in gathering information. Web searches featuring online business publications as well as published College and University level papers were the main sources used in analyzing this topic. The focus in finding relevant articles involved finding recent publications regarding a company's past use of POS systems as well as future concepts and plans for innovation and reinvention. More specifically this involved looking at the potential of introducing automated touch screen self-checkout ordering systems (mainly seen in airport and malls as small kiosks) and how they would be received by customers in full scale restaurants. Another emphasis of research focused on the integration of POS systems with inventory processes, marketing campaigns, and non-technology factors (organizational learning and availability of materials). This topic is highlighted by the success of pizza delivery chains' online ordering systems and amalgamation with POS systems. The focus of approach is also aimed at understanding the potential that outsourcing of ordering systems has to offer businesses and its validity as a form of

operation. In other words certain companies are testing whether drive through orders being relayed to call centers and back to the individual stores can be a successful part of their business model.

Findings

A business that has exploded in recent years earning \$524.1 million worldwide in 2010, self-checkout suppliers are now carving their way into other industries (Anand, 2011). Looking at the success of self-checkout systems used by a large number of grocery store chains and other big box stores many fast food business owners wondered if this success could translate to their business. As it exists now self-checkout touch screen ordering systems are used in the fast food business but mostly exist in airports and malls as small kiosks. This is a trend that will likely change rapidly over the next few years.

Self-checkout technology is seen by businesses as accurate, cost-effective, and a marketing tool that is especially effective when used by younger consumers. Consumers like the customization that self-service kiosks offer and appreciate an additional option for completing a transaction if lines are full. One of the most prevalent examples of the success of this technology can be seen by Coca Cola's introduction of the Freestyle: a touch-screen soda fountain that offers customers up to 106 beverage options. The Freestyle machines have been introduced in 25 different U.S. markets and according to Jim Sanders, who is in charge of commercialization for Coca-Cola Freestyle, they plan to be introduced to "significantly more markets" (Melnick, 2011). Along with providing an interesting and attractive way to dispense beverages, the Freestyle also provides a large array of drink choices that are not available for purchase at any stores which provides options to even the pickiest of consumers (Stafford, 2012). Most recently statistics indicate there are 7,200 Freestyle machines being used in various Burger King, Five Guy's Burger and Fries, and Noodles and Co. stores across the country (Stafford).

Starting merely as a way to track customer orders, POS systems have expanded and are capable of handling much more complex operations. Inventory processes can be automated by determining proper product amounts to be ordered based on the tracking of customer orders. Training materials, shift scheduling, and store operations can all be assisted and managed through the use of POS systems which results in extra time allocated for other activities (Applegate, Austin & McFarlan, 2003). Furthermore, during this day to day store operation large amounts of data are being collected by POS systems and sent via network to corporate offices where it can be analyzed and used most effectively (Pipes). Taking a look at modern pizza chains provides a good example of the success of integrating POS systems into your technology infrastructure.

Seeing the number of consumers choosing to go online for their business needs and purchases the pizza chain Domino's restructured their operations to put a major emphasis on their online ordering platform. Leading the pack for the major pizza chains, in 2009 Domino's hired 30 hardware and software IT professionals to ensure their online ordering system was state of the art and had a very solid framework (Bomey, 2009). The result of these efforts led to an online system that required less labor and minimized mistakes as well as great way for the company to track customer's orders and individual preferences (Lichtenberg, 2012). Most recently Domino's celebrated a milestone in its business surpassing \$1 billion in online purchases from April 2011 to April 2012 (Tuttle, 2012).

Focusing on creating an online POS system that consumers interact and receive updates from regarding their order sets a positive trend for Domino's and its social media presence as well. Building your pizza on their website is interactive with a simulated pizza that adds or removes toppings based on your mouse clicks. Furthermore, the online ordering features a real time progress bar that tells you the current status of your order. While these features seem gimmicky to some consumers they have had an effect on Domino's Facebook and Twitter presence: 4,936 Likes per day on Facebook compared to 2,388 for Pizza Hut and 722 mentions per day on twitter versus 537 for Pizza Hut (Arnold, 2012). The

implementation of a company strategy that connects its operations and employees with its consumers through technology establishes an integrated learning environment as well. This learning environment is one that is reflected in their marketing campaigns which put an emphasis on transparency and honesty with their products. How quickly a company's reputation can change almost overnight with the 2009 Domino's YouTube incident in which employees purposely violated health codes on an outgoing delivery and posted a video of the prank online (Clifford, 2009). It was this incident along with a declining market share that sparked a pivot point for Domino's focusing on a positive online presence and reinvention of their product and service.

Outsourcing is a word that draws the ire of many individuals in the United States. However, its impact on business both positive and negative cannot be overlooked. While many fast food companies outsource toll-free customer phone and support lines some companies have been testing the possibility of outsourcing drive through ordering systems. These systems would dial to a call center where a representative would take your order then relay the order to the correct stores POS system for processing. The idea is that this process can save a few seconds on each order throughout the day. Compound that over the course of a day across a few hundred stores and you could be saving a lot of money. Far from being transparent, this process most always happens without the customer having any idea how their order has been taken (Richtel, 2006). This is partially due to the negative reputation many people associate with outsourcing as well as the customer view that the process eliminates some of the personal touches involved in a transaction.

While consumers may have mixed opinions on companies outsourcing ordering processes, the numbers do not lie. While testing the new process, fast food chain Wendy's sales increased 12% in six stores utilizing outsourcing (Rembao, 2011). While noting the positives it is important to understand that outsourcing poses some difficult problems as well. Bad weather tends to effect the clarity and reception of calls as well as delaying the relay of the order information to individual stores POS systems.

Also, outsourcing may exist for a certain store but it cannot be relied on as the sole means for taking orders if the system were to crash (Rembao). This leads to trying to establish the correct balance between in store order taking and outsourcing while still remaining a cost-effective organization. It seems that switching to a completely outsourced POS system is not the current trend in fast food technology. However, it can be stated that outsourcing definitely has its place in the fast food market. It is just much harder to determine when and where to apply this technique as the situation never seems to be black and white.

Recommendations

In light of this research on POS and ordering systems a number of suggestions can be made regarding their management and use. While it may seem obvious, self service machines and POS systems are not going away in the fast food industry. While every new self-service project and invention may not be well received, it is important to understand how an idea such as a new way to dispense beverages can change a business model for the better. Furthermore, if the product is successful it is important to try to expand upon and update it because competitors will soon be attempting to copy the idea. For example, the technology used by Coca Cola's Freestyle could easily be implemented for use in dispensing a large variety of alcoholic beverages. It is unclear if drinking establishments would stand to succeed by introducing this idea but it cannot be known until it is attempted. Also, due to the popularity of touch screen devices and smart phones in the market today fast food companies should be less hesitant in introducing this technology into their stores as another self-service POS system alternative for customers. Younger generations have an affinity for new gadgets and technology and this could be taken advantage of in many different ways by implementing more touch screen technology.

Looking at the integration of POS technology with a networked infrastructure it would seem that the possibilities are endless as to what can be done with these capabilities. The suggestion is to narrow

down which pursuits are going to provide the most benefit to a company based on their goals. One of the pursuits which the fast food industry can benefit from is focusing on developing mobile technology applications that are efficient and interact with the company POS systems and network effectively. Mobile computing is continually on the rise and organizations that take advantage of this trend put themselves in a good position for success and increased market share.

With increasing popularity of mobile computing the use of cloud technologies is also an area that the fast food industry should look at if they have not already. Implementing cloud services in an organization could create a learning environment where information about all aspects of the business can be accessed quickly and easily. In an industry where business models are primarily based on speed and accuracy, the effect cloud services could have on reducing lost time and resources cannot be underestimated. An example of this could involve a customer placing a substantial catering order at a fast food restaurant and later realizing she needs to pick up the order from a different restaurant. Instead of having to call the other store to relay all of the order details, with a cloud network configured the store could simply look up the order details on the company's network to fulfill the order.

Concerning the potential that outsourcing POS services has on the fast food industry it is important to be aware of technology use and not let it keep you out of touch from the consumer. While the bottom line and numbers are important aspects of a business, brand reputation and personality are some of the more intangible assets to consider in a business model. Trends in expanded technology use seem to be on the rise but it is important to note that technology is not a replacement for customer service. Maintaining the correct balance between the two depends on the geographic market a business is in and consumer preferences in that market. In other words, what works in one area will not necessarily have the same results in another area. For example, publicly announcing outsourcing of

drive-through ordering systems and the addition of touch screen POS systems to a restaurant that serves primarily to older generations may not be a wise decision.

Value

The value this information reveals about the trend for technology in the fast food industry also can be applied to a certain degree to other industries as well. While POS systems may not be used in the same way or capacity in industries outside of fast food, a parallel in business similarities and implementation is never more than a few steps away. This encourages other businesses to think outside of the box and to try to achieve success based on all different types of successful business models. This information also provides an idea for the individual consumer about the future of the food industry and what to anticipate from technology in the future. Regarding the future of the fast food industry, value must be placed in understanding the transparency that exists among organizations due to the fact that most anyone can publish an opinion, blog, or video about an experience they had with a company on the internet. Furthermore, this transparency identifies to the public how a company implements technology and how well it uses the technology in conjunction with customer service practices.

In relation to my team's case study the value of the analysis involved in developing this concept paper helped to clarify how some of the adjustments Taco Bell made in 1980s and 1990s set them up for the success they have been able to maintain since then. Embracing the use of technology (Taco and Taco II) and a networked infrastructure emboldened the company and its use of technology in the future (Applegate, Austin & McFarlan). It is also helped me to understand in depth some of the factors such as POS use and network infrastructures involved in Taco Bell's success. This analysis and observation of POS systems allowed for me to make intelligent recommendations and ideas for a potential revisit of the Taco Bell case study.

Personally, the value of my education not only about IT management but business operations as a whole has exponentially increased as a result of the case study, concept paper, and course assignments. While the case study provided an in depth analysis about all aspects of Taco Bell's transformation the information was somewhat dated. However, in conjunction with the concept paper which involved understanding modern themes in the fast food business I was able to gain a clearer picture as to how go about developing and comprehending case studies as well as business situations I may be involved with in the future. These exercises have allowed me to understand how to present information as well as suggest recommendations and solutions in information technology management environment.

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