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6 Ek-shop and E-business development in rural Bangladesh

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Introduction

After the invention of the Internet, there has been a shift in the business paradigm. Today, the largest store in the world, Alibaba, is doing business with no owned merchandise; the biggest taxi company, Uber, has zero taxi cabs and the largest hotel company, Airbnb, owns zero hotel rooms. People do not need to go to shopping malls for shopping or stand on roadsides for taxi cabs. Now, people can use the Internet and can purchase any kind of domestic and foreign product through online sites. Many successful online businesses are based on sharing information and connecting people through the Internet.

Bangladesh was first introduced to the Internet in 1993 when users could only communicate through email. In 2006, the Global Information Superhighway (SEA-ME-WE-4) was connected. Bangladesh is planning to introduce 5G and already the people are using 4G Internet technology. According to the Bangladesh Telecommunication Regulatory Commission (BTRC), Internet users are now close to 90 million and the web is being used for various business segments. The online business sector has thus brought huge prospects to businesses because it is ready to take orders for goods and services and can do transactions 24/7. It is estimated that currently Bangladesh has an online business of Tk 1,800 crore (USD 21 million) and is soon expected to be Tk 7,000 crore (USD 82 million) (Hasan, 2019). There are about 3,000 online businesses and the number is increasing rapidly. However, the growth of this business is mainly in urban areas, as the vast majority of rural people do not have access to the Internet due to poor Internet quality and Internet literacy.

A large percentage of the population lives in rural areas. Many people there lack access to online business and thus cannot buy products that urban customers can buy and enjoy. Ek-shop (One-Stop Shop) is an initiative (among many) of the Access to Information (A2I) located in the office of the Prime Minister of Bangladesh (PMO). This initiative was supported by United Nations Development Programme (UNDP) and United States Agency for International Development (USAID). At present, the program is administered by the Information and Communication Technology Division of the

Government of Bangladesh. Ek-shop offers a one-stop shopping solution by using a digital platform primarily for rural people. It is still at the early stage of its operation and rapidly getting popular among the rural inhabitants of Bangladesh.

Ek-shop (One-Stop Shop) is a unique e-business model to cater to the need of rural consumers. In the Ek-shop system, there are three main partners: Union Digital Centers (UDCs), which place orders for rural customers, merchants who sell products on the Ek-shop platform and logistics providers who deliver goods to customers. Rather than providing logistics on their own, many online businesses nowadays outsource logistics services to logistic service providers because such services require special capabilities and experience. These outsourced providers play an important role in facilitating interaction between online merchants and customers. If they cannot facilitate this, the entire online platform would collapse in providing quality services (Kersten and Koch, 2010). In the Ek-shop system, these logistic providers also play an important role, but their role in providing the service is different from other online businesses. This is because the Ek-shop outsourced logistic providers serve rural customers through the UDCs located in all Union *Parishads* (rural local councils) in Bangladesh, a business model that is not seen in other online businesses. There are over 4,554 UDCs.

Although past studies have investigated logistics providers of online shopping businesses in other parts of the world, there is a dearth of studies in Bangladesh. Moreover, the business model of Ek-shop is not used in other countries and therefore people do not know how this model works. This chapter explains how the logistic providers deliver orders to rural customers. It also analyzes how the providers deliver orders on time in rural and the way they use the logistics tracking system. The physical and technological capacity of the service providers is also described.

Logistic management in online business

The Internet has taken customers from the traditional market place to virtual market places. Online sales of companies have been expanding more rapidly all over the world than was predicted. In 2005, online sales were predicted to be 2% of all sales in the retail sector in the next five years in Europe, but this more than doubled to 5% by 2010. Online sales growth is commensurate with the growth of Internet expansion in a country (Hoffman et al., 1995; Steinfield and Whitten, 1999; Swaminathan et al., 1999). Wi-Fi and broadband connection have created new opportunities in online business because people can easily access the Internet and do online buying and selling very readily; this has made life more comfortable than before (Mullaney et al., 2003). Online business creates a new marketing channel that causes a paradigm shift in the recent business models and the relationship between logistics services, merchants and customers (Brooksher, 1999; Copacino, 1997; Karpinski, 1999).

Logistic capability is fundamental for all online businesses. That capability is indicative of present and future performance. The higher the logistics capabilities of online businesses, the higher the competitive advantage and superior company performance achieved (Clinton and Closs, 1997; Eckert and Fawcett, 1996; Ellinger et al., 2000; Lynch, 1998; Morash et al., 1996; Zhao et al., 2001). Logistics capability affects firm performance through increasing revenue and reducing cost. Creating differentiation in the online market place can only be possible through proper use of logistics capability (Anderson and Narus, 1995; Daugherty et al., 1998). Logistics capability also contributes to corporate strategy. Low logistic capabilities can affect e-businesses adversely and the logistics challenge is one of the main obstacles to success in online business (Eckert and Fawcett, 1996; Ellinger et al., 2000; Lynch, 1998; Morash et al., 1996; Zhao et al., 2001).

Logistics outsourcing

Logistic outsourcing means using third-party logistic companies for delivering products to customers rather than delivering them by the merchant in order to economize on costs of business operations and address time constraints of business (Londe and Cooper, 1988). The importance of logistics outsourcing is growing in e-businesses. Logistics outsourcing affects firm performance. The term “logistics outsourcing” is often equated with contract logistics, third-party logistics (3PL) and logistics service providers. Research shows that traditional logistics activities such as outbound transportation, freight bill auditing, payment, warehousing, inbound transportation and freight consolidation and distribution are the most frequently outsourced services (Langley et al., 1999; Lieb, 2002; Lieb and Randall, 1999). Logistics outsourcing can also improve company performance by taking advantage of third-party expertise and use the relationship as a risk mitigation strategy. Logistics outsourcing helps a merchant company by engaging third-party expertise in the total business value chain. It reduces operation costs and enhances customer satisfaction (Knemeyer et al., 2003; Langley et al., 1999; Lieb and Randall, 1999; Maltz, 1994; Sink and Langley, 1997;). The competencies of third parties add differentiated value to the service delivery performance of e-businesses. This then increases the competitive advantage of the business in the market (Langley et al., 1999; Maltz, 1994; Sink and Langley, 1997;).

Performance measurement of online logistic providers

Due to the rapid growth of e-commerce businesses, many performance indicators are now used for measuring the performance of e-business logistics providers. Qian (2016) uses five dimensions to evaluate the logistics service of an online shopping platform: transparency, reliability, completeness, timeliness and economy. By transparency, he means the tracking system and related information of the service. Reliability means delivering the goods through credible

Table 6.1 Logistics Service Quality Measurement

<i>Operational Quality</i>	
Schedule	Ability to keep a schedule
Quick	Ability to offer service promptly
Capacity	Ability to provide sufficient capacity
<i>Personal Service</i>	
Service	Service mildness of the personnel
Contact	Accessibility of the personnel
Expert	The expertise of the personnel
<i>Technical Service</i>	
Physical	Technical quality of physical resources
IT level	Technical quality of information systems
IT flow	Problem-free electronic communication

Source: Juga et al. (2010)

logistic providers with consistent performance. Completeness means providing complete logistic services that customers want. Timeliness means on-time delivery of goods to customers. Economy means cost-effective logistic services to customers.

Some researchers have used the traditional omnibus SERVQUAL (Parasuraman et al., 1985; Zeithaml et al., 1990; Zeithaml et al., 2001) five dimensions to study the performance of logistic providers: reliability (ability to perform the promised service dependably and accurately); responsiveness (willingness to help customers and to provide prompt service); assurance (knowledge and courtesy of employees and ability to convey trust and confidence); empathy (provision of caring, individualized attention to customers); and tangibles (the appearance of physical facilities, equipment, personnel and communications materials).

Juga et al. (2010) developed a similar but reduced three-dimension scale for evaluating service quality: operational service quality, personal quality and technical quality (Table 6.1).

Ek-shop as a business platform

The Ek-shop business platform uses a unique e-business model in Bangladesh. It provides e-business services to the rural people through about 11,000 UDCs across rural Bangladesh. The business platform has three players: merchants, logistic providers and the UDCs (Figure 6.1). Unlike traditional e-business, where customers place requests to ordering merchants, in the Ek-shop business model, the UDCs place orders on behalf of rural customers through the Ek-shop online platform. This helps rural people who do not have Internet access to get business services and consume goods that are not available in rural areas. Goods are also delivered to these UDCs by the logistic partners and the UDCs collect the payments from the customers before handing over the goods.

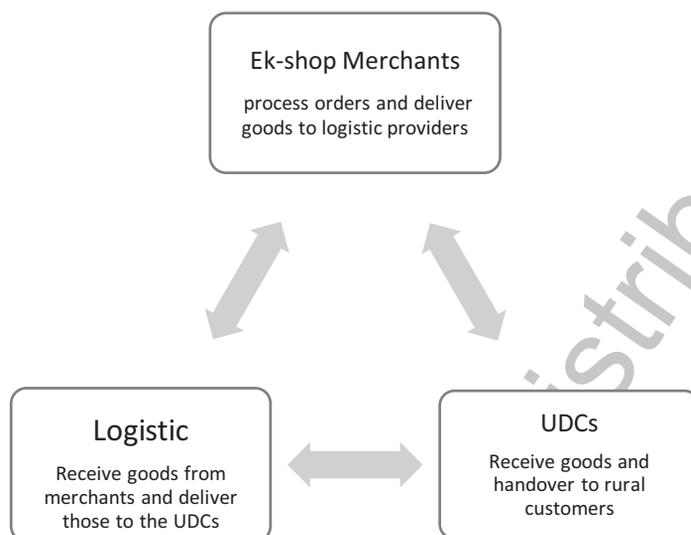


Figure 6.1 The players of Ek-shop business platform.

Source: Proposed by the Authors.

Merchants who deliver goods for rural consumers

Ek-shop does not sell any product itself. It is connected with e-commerce companies in the country that sell a wide range of products. The prominent companies are Ajkerdeal, Bagdoom, Daraz, Kiksha, PharmaQuik, Rokomari, Click & Grab, PriyoShop, etc. The following is a brief description of some of these merchants.

Daraz

Daraz is a popular online shopping site with a wide variety of electronics, fashion and home appliances. This has become one of the most popular online sites for shopping in Bangladesh. Daraz was founded in 2012 and was acquired by the world's largest e-business venture, Alibaba, in 2018. As its website states, it offers discounts, installment facilities and warranties, and these have created loyalty for Daraz from many customers. It has several payment options, including VISA card, bKash (a mobile financial service and bank subsidiary) and cash on delivery. Daraz also claims that it has 100% authentic product collections (daraz.com.bd).

Rokomari.com

Rokomari.com is an online business site for purchasing books. It has been selling books online since 2012 and has a home delivery system in Dhaka, Chittagong

and Rangpur (according to their website). It also sells electronics and accessories. It supplies discounts in books and electronic products. They are using cash on delivery, MasterCard, VISA card, bKash and DBBL (Dutch-Bangla Bank) as a payment system.

Ajkerdeal

With a massive arrangement of the daily basic requirement of products, Ajkerdeal is also a famous website in online shopping in Bangladesh. It has uniqueness in updating offers. Like many other online businesses, it also has the following payment systems: cash on delivery, paying through bKash and other mobile banking systems, VISA and MasterCard.

Pickaboo

Pickaboo is another online business site for online shopping. It offers 100% reliable different types of products and brand warranty at competitive prices. It offers equated monthly installment (EMI) payment options, along with other credit cards and mobile phone payment systems. It also says that it has a convenient return policy for any of its products.

PriyoShop

PriyoShop is one of the most reliable online shops in Bangladesh for a huge range of clothing, footwear, jewelry, accessories, electronics, appliance, books, restaurants, health and beauty products, etc. It is a popular online business solution that started in 2013 (priyoshop.com). Having all the necessary facilities of an ideal online business site, it has become one of the top online business sites in Bangladesh.

Logistic providers: those who deliver goods

Currently, four logistic organizations provide logistics support in the Ek-shop. Apart from the government's postal service division, three private logistic partners are serving the rural customers. Some brief information about these partner organizations is given below.

Pathao

Pathao, a Bengali word meaning "send it", is a Bangladeshi ride-sharing company headquartered in Dhaka. It operates services in three main cities, Dhaka, Chittagong and Sylhet, together with several suburbs of Dhaka and Chittagong. Apart from ride-sharing services, it has already gained a foothold in e-commerce logistics services, couriers and food delivery services. Pathao was established in mid-2015. It brought significant changes to the transportation industry. Pathao

currently has a fleet of 50,000 bikes and is valued at over \$100 million as of April 2018. Now, it is expanding its business on e-business platforms and is one of the major logistic partners of Ek-shop. To ensure logistics support throughout the country, Pathao has collaborated with another prominent courier service company, Sundarban Courier Service.

eCourier

This is another of Ek-shop's logistic partners. eCourier is unique in using a bicycle-based courier service. eCourier delivers documents or files as well as small parcels. It is an e-commerce based venture but it serves non-e-commerce customers as well (eCourier.com.bd, 2019). The premium feature, which has placed the company in a unique place, is the online tracking system, which enables customers to locate their products' present location through android apps, or the website, or via text messaging.

Paperfly

Paperfly is an e-commerce logistics support company that ensures door-to-door delivery and cash on delivery service of e-commerce products in all 64 districts of the country (Paperfly.com.bd, 2019). It is a new start-up that connects customers in remote areas. The Paperfly platform has expanded the market of e-commerce businesses. This also helps people of remote rural areas who find it difficult to get their desired products through e-commerce businesses due to a lack of proper logistics support. This step has made the venture eligible for working with the Ek-shop platform of the government. The start-up commenced its market operation in 2017 but gained a large market share rapidly in a short period. This start-up business used the opportunities created when the government launched the country's Digital Bangladesh campaign.

Bangladesh Post

In the public sector, Bangladesh Post has been promoting the Ek-shop e-business services for rural people. Bangladesh Post is a department under the Telecommunications Division, Ministry of Posts, Telecommunications and Information Technology. It offers a wide range of postal services, banking, financial services and money transfer through its countrywide offices. Bangladesh Post has been using its vast network of 8,500 post offices located all over the country to offer Ek-shop logistic services.

Because the development of the information system has replaced the traditional mailing system, the government has modernized its postal department and diversified its services. To keep pace with the changes in Information and Communications Technology (ICT), Bangladesh post offices are now serving rural people by delivering e-business products. Bangladesh Post has modernized its facilities and converted its traditional postal system to a digital one.

Logistics providers like Bangladesh Post have built a bridge between customers and e-businesses.

UDCs as One-Stop Shops

The Union Information Service Centers were established in 2009. They were renamed Union Digital Centers in 2014. These centers are normally set in a convenient location so that rural people can have access. They are run by two local entrepreneurs (one male and one female). UDCs were first established to provide birth registration, death registration, passport applications, Internet browsing, job searching, citizenship certificates, utility bill payment and disbursement of government subsidy services to elderly people. People can pay passport fees through UDCs and can receive foreign remittances sent by relatives through them. Initially, UDCs used to provide about 20 services, but now people receive 150 types of services. After the introduction of the Ek-shop business, UDCs were included as a key player in the platform that places orders on behalf of rural customers through the Ek-shop online platform. Goods are delivered to UDCs and the UDCs collect payments.

How Ek-shop business platform works

We have used an analytical framework based on the three dimensions proposed by Juga et al. (2010) to evaluate the logistic partners of Ek-shop. Earlier researchers, for example, Bienstock et al. (1997), Grant (2004) and Rafele (2004) proposed similar dimensions in their scales but those scales do not cover all the dimensions that Juga et al. do. Moreover, the earlier measures are old measures that cannot adequately evaluate the operational efficiency of new logistic partners of e-businesses. For example, Bienstock et al. proposed a three-dimensional scale: timeliness, availability and condition. Rafele (2004) also proposed a three-dimensional measure: tangible components, ways of fulfillment and information actions. Grant (2004) proposed four-dimensional measures: pre-order and order service and quality, relationship service and relationship quality.

Apart from the Juga et al. dimensions, researchers argue that Ek-shop logistic providers cannot deliver their services in isolation. To provide their services to end customers, they need support from the other two major partners of the platform, i.e., UDCs and merchants. The entire logistics system therefore works like interconnected gear wheels (see Figure 6.2). This analytical framework shows how the partners, UDCs and merchants can create a value-creating synchronized network between all three players of the Ek-shop platform.

The authors collected information on how Ek-shop works and its relationships with e-commerce enterprises through focus group discussion (FGD) meetings and key stakeholders' interviews (KSI). To get insight into the logistic partner's performance, FGDs were conducted with UDC owners and Ek-shop merchants. Juga et al.'s (2010) three-dimensional scale for evaluating the service quality of logistic providers was used: operational service quality, personal quality and

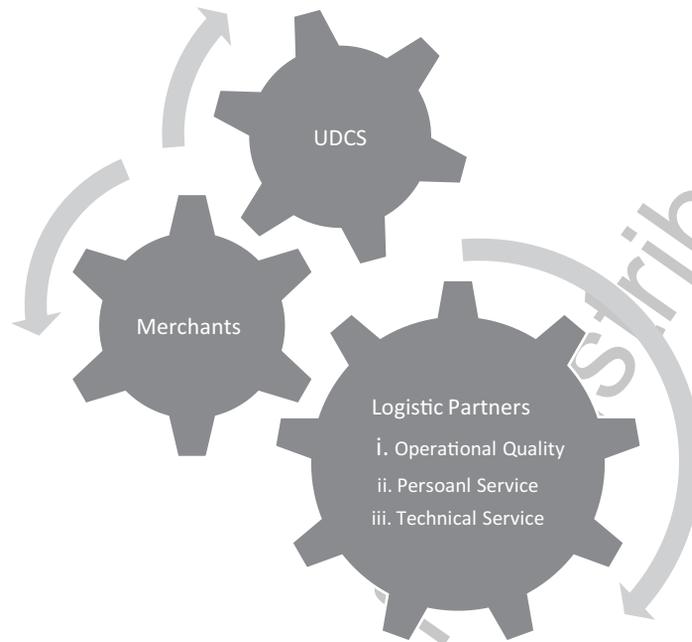


Figure 6.2 Proposed business model of Ek-shop.
Source: Proposed by the Authors

technical quality. Interview questions were based on these three dimensions. The FGDs were recorded on an audio device and the recorded output was then transcribed. The researchers prepared a discussion guide for the FGDs. The first FGD was done with 11 UDC owners coming from different parts of the country and the other one with seven participants from five Ek-shop merchants: Ajkerdeal, Pharmaquick.com, Dinratri.com, Prioshop.com and Bagdoom.com.

The in-depth, face-to-face interviews were conducted using a semi-structured questionnaire. Questions, including tentative follow-up questions, were prepared in advance, and adjustments were made as required during the interview. The interview was digitally recorded with the permission of the interviewee. The recording was then transcribed and analyzed. A detailed interview protocol was prepared to ensure that appropriate processes were followed in regard to digital recording, written consent and assurance of confidentiality. Participants were asked questions about their experiences of and knowledge about providing logistic services to Ek-shop customers.

Ek-shops and entrepreneurial business activities: benefits to people living in rural areas

Online business has changed many traditional ways of transacting business and brought great changes to the rural economy. Citizens of a developing country

like Bangladesh are now improving their standard of living using the Internet and Internet-related services. Sellers can now get order by the online ordering system and customers can save much time by doing online business. In order to make the substantial growth in this sector sustainable and to share the benefits of economic development of the country, the vast majority of people who live in remote-rural areas cannot be ignored. A2I's Ek-shop project tries to reach these rural customers. The Ek-shop e-business platform, as a nexus of online merchants, UDCs and logistic providers, is unique in the world.

Primary data collected through two FGDs and interviews reveal different performance dimensions of e-business logistics partners in reaching rural customers. The findings identify some weaknesses in operational quality, personal service and physical service dimensions. In capability, a sub-dimension of the operational quality dimension, logistic companies were found to be inadequate due to the lower number of delivery vans and lack of capacity to reach some rural destinations where a boat is the only communication option. On the personal service dimension, even though the delivery staff of the logistic partners try hard to deliver goods to UDCs, there is less cooperation from the other partners: UDC employees or owners are often absent during business hours. The packing done by the merchants is not delivery-friendly, which is due to the lack of trained packers at the merchants' organizations.

The current Ek-shops platform needs to be updated and improved. There is a need to improve the real-time order cancellation system. At present, when UDCs cancel orders, information is not communicated to the logistic providers in good time. This causes delivery failure, as logistic providers are not updated instantly. At present, the logistic partners are connected through the merchants of the Ek-shop systems. Ek-shop does not monitor the logistic providers itself. The system can be improved by connecting logistic partners directly to the Ek-shop system.

There is a need for better-synchronized communication between Ek-shop platform partners – UDCs, merchants and logistic companies. In the absence of synchronized business communication, rural customers do not get delivery of goods on time. UDCs often order goods from merchants who are not specialized in that product area and therefore the delivery lead time is longer. UDCs often do this because these merchants offer them a higher commission. The other problem identified is that the merchants are not comfortable working with the Ek-shops because they work with other logistic partners.

Bangladesh has shown remarkable progress in economic development in the last decade. One of the weaknesses in that development is disparity in sharing the benefits among all the people. The Ek-shop e-business was established by the government to reduce that disparity and with a goal: “not leaving anyone behind”.

Challenges of Ek-shop model

Although UDCs are located in convenient locations, some FGD participants, both from UDC entrepreneurs, merchants and interview participants from the logistic provider suggested that the remote locations of current UDCs caused

problems in delivering products. Sometimes, therefore, logistic providers deliver goods to the closest bazaar. This causes late delivery and inconvenience for both UDCs and logistic providers. Remoteness of location thus affects the operational quality of the logistic providers. Informants stated that, if the UDCs were located in a more convenient location, this problem would not arise and they could improve the operational performance.

Communications to the UDCs are sometimes so difficult that delivery of large items such as refrigerators or air conditioners, which are often ordered by rural areas, becomes very difficult. One participant stated that sometimes they needed to go to a UDC to deliver goods by van (or an open rickshaw or a tricycle). The deliverymen have to take the goods from their van and then carry them to the UDC or nearest location via a rented boat. This is because many rural areas do not have good road infrastructure. None of the Ek-shop logistic providers have a boat or similar transport vehicle to deliver goods to village customers. This is one of the difficulties that the logistic providers face in delivering goods to UDCs.

Most of the merchants and logistic providers are located in the capital city, Dhaka. They promise same-day delivery if the order is made within Dhaka. A participant with one of the main logistic partners stated that overall they had an on-time delivery rate of 91% inside Dhaka itself. However, during peak seasons, such as religious festivals or national festivals, the rate drops. The delivery time is higher for Ek-shop customers located outside Dhaka and mainly in the rural areas. The logistic partner said that they did not have any separate information for Ek-shop customers because they serve these UDCs just like their other customers. They normally promise to deliver within 48 hours to divisional level. However, remote divisions like Rangpur usually require 72 hours. Overall, they have a 72% success rate in delivering goods within 48 hours and a 90% success rate of delivery within 72 hours. However, some participants pointed out that sometimes it takes 10–15 days to get products.

The reasons for long delivery times and delivery failure were identified. An inadequate number of delivery vans was one of the major reasons. This low capacity causes scheduling problems and delivery of goods on time. Moreover, a delivery job is not very attractive to young men due to its tedious nature. Therefore, high turnover often causes longer delivery times during peak seasons.

Traffic congestion in most big cities is a significant issue nowadays in Bangladesh. A recent study shows that traffic movement is 7 km per hour in Dhaka, which makes for the worst traffic congestion in the world. This is identified as one reason for high lead times in delivering merchandize to rural areas because all the merchants are located in Dhaka.

The FGDs and interviews reveal that the packing used by the merchants is not delivery-friendly. Merchants often hand over goods to logistic providers with improper packaging that makes handing of large items difficult and ultimately causes longer lead times. “This is due to the inexperience and improperly trained employees of the merchants”, one participant complained.

UDC owners and employees often remain absent from their centers. Some FGD participants said that this was due to a lack of professionalism among

owners who take this business very casually; they are often busy with other business or doing household tasks and are less focused on their UDC work. Interview participants expressed their dissatisfaction and said that sometimes the courier calls the UDC owners or employees to inform them of the delivery time of a parcel, but UDC owners do not answer the phone calls or call the supplier back. To resolve any delivery failure dispute, usually the deliverymen record the conversation and save the screenshot of their call list and text it to the UDC. But sometimes, UDCs ignore such text messages. This can create an embarrassing situation and dissatisfaction among the partners of the whole business system. This adversely affects personal service quality in the whole Ek-shop system.

The Ek-shop system does not require advance payment to merchants for the merchandise ordered by the UDCs, even though a UDC takes some advance payment from the end customer. This causes UDCs sometimes to not accept the product delivery because they do not have enough money to pay for it. The participants expressed anger that UDCs are given free delivery, commissions and other promotional incentives, but these do not have much effect in improving the situation at UDC level. This problem could be solved if the payment system could be integrated into the existing Ek-shop platform.

One issue raised by both FGD and interview participants was that the current Ek-shop platform needed to be updated to show cancellation of orders in real time. Thus, when UDCs cancel orders, information is not immediately visible to the logistic providers. This also causes delivery failure. Ek-shop often monitors and communicates the orders through a Facebook page connected to UDCs and merchants. However, Ek-shop does not directly monitor the logistic providers nor it is visible to the logistic providers; they are just connected via the merchants.

One of the major drawbacks is the synchronization among the Ek-shop platform partners. Merchants, UDCs and logistic partners need to act in a synchronized way to deliver the best service to the rural customers. A synchronized work culture is absent in the Ek-shop platform. One of the main problems in e-business in rural areas is a long lead time. However, the UDCs do not pay proper attention to this and often act in their own interest. Some merchants have strengths in some products and can source and deliver those quickly. Though UDCs are aware of this, they do not order products from merchants who can source that product and deliver it quickly. Rather they order from merchants who give them the highest commission. This causes synchronization problems in the whole system and degrades the reputation and trust for the Ek-shop platform.

The lead time is higher than other e-businesses when goods are ordered through Ek-shop. This is because the logistic providers are not their logistic partners. Ek-shop has only four selected logistic companies with whom they are not yet comfortable to work. This could be solved if they could deliver the products with their logistic providers. This indicates a lack of synchronization between the merchant and Ek-shop's logistic companies. The platform players must act in such a way that they are part of a business network.

Conclusion

Online business has changed traditional business transactions and generated opportunities for business development in the rural economy. This e-commerce business network has improved the standard of living of many rural small business entrepreneurs who use Internet-related services. Sellers can receive orders through an online ordering system and the customer can save time and money by doing online business. In the last two decades, a huge growth in the e-business sector in Bangladesh has changed the rural economic structure. The Ek-shop project has established trust and increased awareness among rural people and demonstrated the economic and social benefits the citizens can gain from e-business-based business transactions. The Ek-shop e-business platform is a nexus of online merchants, UDCs and logistic providers who provide e-business services to rural customers. This business model shows that a citizen-centric, integrated, Ek-shop platform can reach the citizens in remote areas. To make the Ek-shop more user-friendly, a better-synchronized approach is needed between the UDCs, merchants and logistic companies.

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References

- Anderson, J.C. and Narus, J.A. (1995). Capturing the value of supplementary services. *Harvard Business Review*, 73, 75–84.
- Bienstock, C.C., Mentzer, J.T. and Monroe, M.B. (1997). Measuring physical distribution service quality. *Journal of the Academy of Marketing Science*, 25(1), 31–44.
- Brooksher, D.K. (1999). E-commerce and logistics. *Traffic World*, November, p. 31.
- Bowersox, Donald J. and Daugherty, Patricia J. (1995). *Journal of Business Logistics*, Hoboken 16(1), 65–81.
- Clinton, S.R. and Closs, D.J. (1997). Logistics strategy: Does it exist? *Journal of Business Logistics*, 18(1), 19–44.
- Copacino, W.C. (1997). Electronic commerce: How it will affect logistics. *Logistics Management*, 36(3), March, 39.
- Daraz.com.bd, Company Overview. Access Date: 12 September 2019.
- Daugherty, P.J., Stank, T.P. and Ellinger, A.E. (1998). Leveraging logistics/distribution capabilities: The impact of logistics service on market share. *Journal of Business Logistics*, 19(2), 35–51.
- Eckert, J.A. and Fawcett, S.J. (1996). Critical capability for logistics excellence: People, quality, and time. *Proceedings of the Council of Logistics Management*, pp. 183–197.

- ECourier Company Overview. www.eCourier.com.bd. Access Date: 12 September 2019.
- Ellinger, A.E., Daugherty, P.J. and Keller, S.B. (2000). The relationship between marketing /logistics interdepartmental integration and performance in US manufacturing firms: An empirical study. *Journal of Business Logistics*, 21(1), 1–22.
- Grant, D.B. (2004). UK and US management styles in logistics: Different strokes for different folks? *International Journal of Logistics: Research and Applications*, 7(3), 181–197.
- Hasan, J. (2019). E-commerce giant ‘Ek-Shop’ reshaping rural economy. *The Financial Express* October 7.
- Hoffman, D.L., Novak, T.P. and Chatterjee, P. (1995). Commercial scenarios for the web: Opportunities and challenges. *Journal of Computer Mediated Communication*, 1(3), 29–53.
- Juga, J., Juntunen, J., and Grant, D.B. (2010). Service quality and its relation to satisfaction and loyalty in logistics outsourcing relationships. *Managing Service Quality: An International Journal*, 20(6), 496–510.
- Karpinski, R. (1999). The logistics of e-business: Web commerce demands new approach to inventory, shipping. *Internet Week*, May, 1–14.
- Kersten, W. and Koch J. (2010). The effect of quality management on the service quality and business success of logistics service providers. *International Journal of Quality & Reliability Management*, 27(2), 185–200.
- Knemeyer, A.M., Corsi, T.M. and Murphy, P.R. (2003). Logistics outsourcing relationships: Customer perspectives. *Journal of Business Logistics*, 24(1), 77–109.
- Langley Jr., J., Newton, B.F. and Tyndall, G.R. (1999). Has the future of third-party logistics already arrived?. *Supply Chain Management Review*, 33, Fall, 85–94.
- Lieb, R.C. (2002). The use of 3PL services: The 2002 survey. *Logistics Management*, 42(1), 16.
- Lieb, R.C. and Randall, H.L. (1999). 1997 CEO perspectives on the current and future projects of the third party logistics industry in the United States. *Transportation Journal*, 38(3), 28–41.
- Londe, L.B.J. and Cooper, M.C. (1988). *Partnerships in providing customer service: A third party perspective*. Oak Brook, IL: Council of Logistics Management.
- Lynch, D.F. (1998). The integration of firm resources: The role of capability in strategy and firm performance. Doctoral dissertation, University of Arkansas, Fayetteville, AR.
- Maltz, A.B. (1994). The relative importance of cost and quality in the outsourcing of warehousing. *Journal of Business Logistics*, 15(2), 45–62.
- Moktar, A.M., Ahmed, R. and Rahman, A. (2016). Present scenarios, opportunities and obstacles of e-business in Bangladesh. *Journal of Marketing*, 17, 55–76.
- Morash, E.A., Droge, C.L.M. and Vickery, S.K. (1996). Strategic logistics capability for competitive advantage and firm success. *Journal of Business Logistics*, 17(1), 1–22.
- Mullaney, T. et al., (2003). The e-biz surprise. *Business Week*, February 4, pp. 40–45.
- Paperfly.com.bd Company Overview. Access Date: 12 September 2019.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4), 41–50.
- Pickaboo.com Company Overview. Access Date: 12 September 2019.
- PriyoShop Company Overview. Access Date: 12 September 2019.
- Qian L.I. (2016). Logistics service quality evaluation for e-commerce based on extenics theory. *International Journal of Simulation Systems, Science & Technology*, 17(2), 1–6, 201.

- Rafele, C. (2004). Logistics service measurement: A reference framework. *Journal of Manufacturing Technology Management*, 15(3), 280–290.
- Rokomari.com Company Overview. Access Date: 12 September 2019.
- Sink, H.L. and Langley Jr., C.J. (1997). A managerial framework for the acquisition of third-party logistics services. *Journal of Business Logistics*, 18(2), 163–189.
- Steinfeld, C. and Whitten, P. (1999). Community level socio-economic impacts of electronic commerce. *Journal of Computer Mediated Communication*, 5(2), available at: www.ascusc.org/jcmc/vol5/issue2/steinfield.html
- Swaminathan, V., Lepkowska-White, E. and Rao, B.P. (1999). Browsers or buyers in cyberspace? An investigation of factors influencing electronic exchange. *Journal of Computer Mediated Communication*, 5(2), available at: www.ascusc.org/jcmc/vol5/issue2/swaminathan.html
- Zeithaml, V.A., Parasuraman, A. and Berry, L.L. (1990). *Delivering service quality, balancing customer perceptions and expectations*. New York: The Free Press. The Customer Pyramid.
- Zeithaml, V.A., Parasuraman, A. and Berry, L.L. (2001). Creating and Serving Profitable Customers. *California Management Review*, 43(4), 118–142.
- Zhao, M., Droge, C. and Stank, T.P. (2001). The effects of logistics capabilities on firm performance: Customer-focused versus information-focused capabilities. *Journal of Business Logistics*, 22(2), 91–107.