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Impact of Technological Advancement on Customers: A Study on Electronic Proof of Delivery

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Abstract

In India, logistics industries consider being sunshine industry and are facing a frequent transformation process. Among others, EPOD is one of the digital tool to collect wide array of data, accelerate beyond the conventional signature enhance customer loyalty and at diminished costs. The present study focuses on adapting and verifying the program that was originally created for existing customers and how the determinants influence EPOD. To assess the EPOD, the researcher utilises descriptive research design to know exactly what is happening in the organisation. The researcher studies the variables like affective, behavioural, confidence and attitude towards EPOD among consumers. Correlation outcome provides an



outcome that all the variables have a close association with attitude towards EPOD. Besides, attitude of EPOD among consumers influence the productivity too. 0.3% influence of behavioural attributes of EPOD on productivity. Besides, confidence attributes of EPOD influence the productivity to be around 1.4%. In addition, 0.9% impact to be identified with the attitude of EPOD technology on productivity. Finally, the study found that the consumer attitude towards EPOD technology has an impact on productivity.

Keywords: EPOD; Logistics services; Productivity.

Introduction

Logistics services plays a critical role in gaining a competitive edge in today's global business environment. Managing transport is the most important area of any business. Today more than 66% of world trade (value-based) is transferred through maritime transport. Today knowledge about logistics and transportation goes through an electric payment on delivery network. Customers can see information from ordering a product for shipping and supplying the finished product in this system. The information is often in the system automatically, and may often take a while to update them. Items are ordered from subcontractors, and from the outset, the order will be available in the network. Subcontractors often have the option of filling in information directly to the network so that company can monitor their order situation and when it is ready for pickup. This is a system that uses computing devices, automated and mechanical machines without human needs to transmit data throughout the network.

Statement of the Problem:

It is evident that supply chain is always a critical area of all industries. From past few years customers' expectations, mode of delivery of services or products are changing rapidly. In this scenario it is really a daunting task for logistic companies to ensure and intensified the better services to the customers in terms of quality and on time delivery.

It is apparent that now a days logistic companies are turning to cloud-based logistics solutions and electronic proof of delivery to enhance transparency, services, traceability during their entire operation.



In this paper, researchers have investigated to analyse the behavioral attitude and acceptance level towards electronic proof of delivery system. On the basis of extensive literature review this research will address below mentioned questions:

What is the acceptance level and ease of using electronic payment on delivery system among customers?

What is the impact of technological advancement in the form of electronic payment on delivery system on companies?

Objectives

The objectives of the study are:

- To identify EPOD adaption and ease of using among customers.
- To analyses the factors which influence the behavior EPOD in Bangalore
- To identify the impact of attitudes of customers in influencing the EPOD in Bangalore.
- To find out how the customer confidence influence the EPOD
- To identify the impact of behavioural attributes on customers in influencing EPOD

Hypothesis

(H0) There is no association between the affective attributes and attitude of technology.

(H1) There is association between the affective attributes and attitude of technology.

(H0) There is no association between the behavioral attributes and attitude of technology”

(H2). There is an association between the behavioral attributes and attitude of technology”

Scope of the study

Today, electronic proof of delivery is a quickly-growing trend that too many businesses are enacting in their business processes to know the modern world in front of them and to prevent the development of a more positive approach toward using technology. Couriers, logistics suppliers and distributors can now gather a vast array of data beyond the conventional signature, enhancing customer loyalty while reducing operating costs. Industries that earlier had little requirement for ePOD software are therefore recognizing possible advantages. As



new electronic proof of delivery systems became a should-have software to enhance portable work force activities throughout all sectors.

Limitation of the Study

Review of Literature

Concept of Electronic Proof of Delivery (E-POD)

Turner, M. (2020) explained Electronic Proof of Delivery (EPOD) is a digital system that allows the customer to keep track of the goods shipped in an effective manner that enables the logistics company to provide better customer service. Traditionally, the paperwork was filed by the employee manually and data was put into IT systems. For an employee, it was a horrific and time-consuming work that often-included human mistakes and delays. In the new approach, the consumer wants the production at an accelerated pace that the conventional paperwork process can not satisfy. In EPOD the transaction details such as invoice number, dispatch date, purchase order, shipping information, price quotes will be exchanged. Deliveries at any location can be monitored by telephone, it helps return the damaged goods, check order information, monitor the loading and unloading of goods. This, in effect, saves an employee's time and improves workplace productivity, as well as delivering the product on time. EPOD is a device which is customer focused. The driver must make a note of each delivery according to the customer's request for potential references and also helps to address any difficulties the customer faces. The program is also collecting feedback and performing a customer survey in seconds. Finally, it helps to reduce paperwork-related harm. In addition, our organization keeps customer data which can be shared with other departments without any pause in the flow of information.

Maurice, R. (2020) indicated that, when adapting digital proof of delivery, it will allow us to know the benefits and the issues to remember. We are in an age of digital transformation, of digitisation of everything around us. With this transition, logistics problems are growing, customers can order online anywhere at any point in time, or ask to receive their bills in digital form.

Sudasassi, R. (2020) Six specific ways of why logistics companies will implement ePOD software are explained in this Report. Traditionally, the sole purpose of getting a signature on



the paperwork is to verify whether or not the product is being received due to the advancement of mobile device technology, which helps to meet the endless ever-changing expectations at the time of delivery. Six reasons,

- Customer Service Effective
- Live to route
- Precision and Performance
- Act as rule
- Good apprehension about data
- Go on white.

Nowadays, everything is done at the fingertips using a smartphone that provides an efficient way to interact with the customers and also delivers better customer delivery experience. The EPOD system helps to increase the goodwill and profitability of your business over the period.

Wibbeling, Sebastian & Schneiders, Fabian. (2013) claimed that, due to the growth of the internet, competition in the e-commerce market, which is often referred to as the e-business where goods and services are bought and sold, has in effect increased. Demand, as well as market growth, will pose new challenges for logistics providers by addressing individual demand and updating their current order and distribution processes. The issue of protection and authentication for sensitive and expensive products which cost the customer a fortune comes into the picture. In order to create a strong linkage among purchaser and the end user, it is necessary to reduce the security risk by adapting EPOD (electronic proof of delivery) which helps to improve process authentication. Security should be the highest priority particularly when it comes to the health sector.

Alkhlaifa (2017), this paper explore the factors influencing consumer confidence in e-commerce in Jordan. This research investigated the elements which affect consumer's confidence in e-commerce. Survey was conducted among 150 university students. This study concluded that consumer behavior and privacy is the significant factor which impact consumer confidence in e-commerce activity.



Nino Mushkudiani (2018), This paper investigated the expansion of e- payments in Georgia. In this paper researcher have identified the progress and development of cashless payment system in Gergoia. This paper indicates how people are adapting the cashless payment system.

KhaledAldiabat (2019), The means of payment influences the decision to shop online. This research quantifies the impact of e-cards on e-shopping decisions in Jordan by examining four factors: use and reliability, trust and safety, e-card type, and perception. Results showed a positive relationship between the use and reliability of electronic cards and the decision to shop online, with the use of electronic cards. The study also concluded that the type of electronic card and payment method influences the decision to shop online. (Credit card, debit card, prepaid card, cash on delivery).

Research Gap Analysis

It is evident from the deep literature review that no single study has been conducted to analyse the various factors pertains to baehaviourial, confidence, ease of use of electronic payment system on delivery. This paper is an attempt to investigate various factors influencing the consumer behavior while pre and post purchase and ease of use.

Methodology

For the purpose of study, researchers have used non-probability sampling technique. Convenient sample method was used for data collection. To assess the impact of Technological Advancement on Customers, researchers have conducted survey through administered questionnaire prepared on Likert scale-5 point scale. The data was collected from 102 customers.



Result and Discussion

Table 4.1 showing the age

		Frequency	Percent	Valid %	Cumulative%
Valid	28 to 38 years	34	33.3	33.3	33.3
	38 to 48 years	25	24.5	24.5	57.8
	Above 48 years	43	42.2	42.2	100.0
	Total	102	100.0	100.0	

Table 1: Age

From the above table it observed that the 33.3% of respondents between the age of 28 and 38 years, 24.5% of between the 38 and 48 years and 42.2% are above 48 years. Therefore it is concluded that the highest number of respondents are above 48 year

Figure 1: Age

Table 4.2 showing the gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	47	46.1	46.1	46.1
	Female	55	53.9	53.9	100.0
	Total	102	100.0	100.0	

Source: Primary Data

Table 2: Gender

Table 4.2 depicts that the 46.1% of respondent's male and 53.9% are female.

Hence, it is clear that the highest number of respondents are female.



Table 4.3 showing the education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	UG	36	35.3	35.3	35.3
	PG	33	32.4	32.4	67.6
	Others	33	32.4	32.4	100.0
	Total	102	100.0	100.0	

Source: Primary Data

It is clear from the table that the 35.3% of respondents UG and 32.4% are PG and others. Hence, it is concluded that the maximum number of respondents are UG.

Table 4.4 showing the occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Farmers	28	27.5	27.5	27.5
	Business	20	19.6	19.6	47.1
	Employee	24	23.5	23.5	70.6
	Others	30	29.4	29.4	100.0
	Total	102	100.0	100.0	

Source: Primary Data

We can see in the above table that the 27.5% of respondents 'farmers while 19.6% of respondent's business, 23.5% of employee and 29.4% are others. Therefore, it is concluded that the most of the respondents are others.



Table 4.5 showing the descriptive statistics of affective attributes

Particulars	Mean	Std. Deviation
I think it is important to keep up with the latest trends in Technology	2.8235	1.49197
I get anxious to have EPOD	2.9902	1.46575
Using EPOD makes me very nervous	3.0196	1.36418
I am no good with EPOD	3.0196	1.39291
The challenge of adding a EPOD and keeping them updated does not appeal to m	2.9118	1.44265
EPOD makes me feel uncomfortable	2.8529	1.34530
I don't think I would enjoy doing EPOD	3.0490	1.45137
I am not comfortable to do well with EPOD	2.9216	1.43979
I don't think EPOD is interesting for me.	3.1569	1.40540
I think using or keeping an EPOD would be very hard for me	3.2451	1.41026
EPOD makes me feel uneasy and confused	2.8235	1.44477
I feel aggressive and hostile towards EPOD	3.0588	1.50789

Source: Primary Data

Table 5: Descriptive statistics of affective attributes

From the above table it depicts that the mean value of affection is 2.83 for respondents think it is important to keep up with the latest trends in technology, 3.01 for respondents get anxious to have EPOD and Using EPOD makes me very nervous, 2.91 for the challenge of adding a EPOD and keeping them updated does not appeal to m, 2.85 for EPOD makes me feel uncomfortable, 3.05 for respondents don't think I would enjoy doing EPOD, 2.92 EPOD, I am not comfortable to do well with EPOD , 3.24 for respondents think using or keeping an EPOD would be very hard for me, 2.82 for EPOD makes me feel uneasy and confused and 3.06 for respondents feel aggressive and hostile towards EPOD.



Table 4.6 showing the descriptive statistics of behavioural attributes

Particulars	Mean	Std. Deviation
I would like working with EPOD	3.0588	1.36304
Generally, I would feel ok about EPOD	3.1078	1.41356
I would feel at ease in an EPOD	3.0000	1.42815
EPOD usage makes me enjoyable and stimulating	2.9510	1.38862
I am comfortable with EPOD	2.6373	1.46097

Source: Primary Data

Table 6: Descriptive statistics of behavioral attributes

From the above table it infers that the mean value of behavioral is 3.05 for respondents would like working with EPOD, 3.10 for respondents would feel ok about EPOD, 3 for respondents would feel at ease in a EPOD, 2.955 for EPOD usage makes me enjoyable and stimulating and 2.63 for I am comfortable with EPOD.

Table 4.7 showing the descriptive statistics of attitude of EPOD technology

Particulars	Mean	Std. Deviation
I feel it is important to be able to find any information	2.7941	1.49811
EPOD technology will provide solution to problems	2.8235	1.32315
With technology anything is possible	2.9902	1.33123

Source: Primary Data

Table 7: Attitude of EPOD technology

It observed that the mean value of attitude is 2.79 for respondents feel it is important to be able to find any information regarding EPOD, 2.82 for EPOD technology will provide solution to problems and 2.99 for with technology anything is possible.



Table 4.8 showing the descriptive statistics of Confidence attributes of EPOD technology

Particulars	Mean	Std. Deviation
Once I start to use on EPOD and I will use it continuously	3.0980	1.48597
I have a lot of confidence when it comes to have EPOD	2.9902	1.42464

Source: Primary Data

Table 8: Descriptive statistics of Confidence attributes of EPOD technology

Table 4.8 found that the mean value of confidence is 3.09 for Once respondents start to use on EPOD and I will use it continuously and 2.99 for respondents have a lot of confidence when it comes to have EPOD.

Table 4.9 showing the descriptive statistics of Impact of ePOD on productivity

Particulars	Mean	Std. Deviation
Technological facilities have a positive effect on productivity	3.1667	1.46296
Using technology would facilitate the understanding of difficulty in the sector	3.0980	1.48597
Using current technologies would promote the improvement of the productivity	3.1471	1.47854

Source: Primary Data

Table 9: Descriptive statistics of productivity

It observed that the mean value of effects of EPOD is 3.17 for Technological facilities have a positive effect on productivity, 3.09 for Using technology would facilitate the understanding of difficulty in the sector and 3.15 for Using current technologies would promote the improvement of the productivity.



Table 4.10 showing the correlation between the attitude of EPOD technology on affective, behavioural and confidence attributes

Particulars	Affective	Behavioural	Confidence	Attitude
Affective	1	.060 (0.002)	.073 (0.001)	.002 (0.000)
Behavioural		1	.054 (0.003)	.122 (0.001)
Confidence			1	.118 (0.002)
Attitude				1

Table 10: correlation between the attitude of EPOD technology on affective, behavioral and confidence attributes

Table 4.10 explains the association between the confidences on variables of EPOD.

it is found that the coefficient of correlation between affective and confidence has positive correlation, i.e., 0.025. It has a significance value of 0.000 which is below 0.005 Hence, rejects the **null hypothesis(H0)**.

With respect to second variables using behavioral, a positive correlation is found among behavioral and confidence i.e 0.122. It has a significant value of 0.001 which is below 0.005. Hence, we reject the **null hypothesis (H0)**.

With respect to last variables using attitude, a relative positive correlation, i.e. 0.118 is found. Significance value is 0.002 which is below 0.005, thus, we reject null hypothesis and accept alternative hypothesis.



Table 4.11 showing the correlation between the consumer attitude towards EPOD and its productivity

Particulars	Attitude	Productivity
Attitude	1	.095 (0.000)
Productivity		1

Table 11: correlation between the attitude and effects of EPOD

Table 4.11, explain the relationship between the attitude and effects of EPOD. This table studies the relationship of human, independent factors to the dependent factor.

A coefficient of correlation between attitude and effects of EPOD have positive correlation, i.e., 0.095. It has a significance value of 0.000 which is below 0.005 Thus rejects the **nullhypothesis (H₀)** that "there is no association between the attitude of EPOD and productivity.

CONCLUSION

Based on results, the primary conclusion of this study confirmed that the EPOD application is appropriate among consumers. EPOD considers being an effective technology especially for logistics. This study assess the EPOD technology adoption and validation in terms of determinants like affective attributes, behavioural attributes, confidence attributes and how the customers have an attitude towards EPOD technology and how it influence the EPOD in terms of productivity. With the help of correlation, the study found that the close association between the attitudes and its effect on EPOD in terms of productivity. Besides, affective, behavioural and confidence attributes of customers has a close association with the effects of EPOD. Besides, confidence attributes of EPOD influence the productivity to be around 1.4%. In addition, 0.9% impact to be identified with the attitude of EPOD technology on productivity. Finally, the study found that the consumer attitude towards EPOD technology has an impact on productivity. Considering the EPOD attitude of consumers, the Intugine technologies designed uniquely and the utility of such an application can be determined with the EPOD.



References

- Jeffrey, T. J. (1993). *Adaptation and validation of a technology attitude scale for use by American teachers at the middle school level* (Doctoral dissertation, Virginia Tech).
- Ioane, Bogdan. (2017). Cultural Adaptation of Research Instruments – The Case of Materialism Scales Culturally Adapted for Use in China. *Asian Business Research*. 2. 7. 10.20849/abr.v2i2.148.
- Iqbal, Hafiz. (2016). Adaptation and Validation of Aricak's Professional Self-Esteem Scale for use in the Pakistani Context. *The European Journal of Social and Behavioural Sciences*. 16. 2055-2066. 10.15405/ejsbs.185.
- Ferreira, M.B.G., Haas, V.J., Dantas, R.A.S., Felix, M.M.D.S. and Galvão, C.M., 2017. Cultural adaptation and validation of an instrument on barriers for the use of research results. *Revistalatio-america de enfermagem*, 25.
- Guedes, E.D.S., Sousa, R.M.C.D., Turrini, R.N.T., Baltar, V.T. and Cruz, D.D.A.L.M., 2013. Adaptation and validation of the instrument positions on the nursing process. *Revistalatio-america de enfermagem*, 21(1), pp.404-411.
- de Lima Barroso, B. I., Galvão, C. R. C., da Silva, L. B., & Lancman, S. (2018). A Systematic Review of Translation and Cross-Cultural Adaptation of Instruments for the Selection of Assistive Technologies. *Occupational therapy international*, 2018.
- Wibbeling, Sebastian & Schneiders, Fabian. (2013). Research Project ePOD@Home: Electronic Proof of Delivery at Point of Delivery. 10.1007/978-3-642-32838-1_12.
- Turner, M. (2020). How does an electronic proof of delivery (EPOD) system work? Retrieved 13 March 2020, from <https://www.obs-logistics.com/blog/how-does-an-electronic-proof-of-delivery-epod-system-work>
- Rock the Docks-What ePOD Brings to Cross-Docking - Supply Chain 24/7. (2020). Retrieved 13 March 2020, from https://www.supplychain247.com/article/-rock_the_docks_what_epod_brings_to_cross_docking