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**E-commerce payment methods in Nepal: current state and challenges**

**Bachelor Thesis**

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## **Abstract**

In this thesis report, effort has been made to examine and provide result for the optimal payment solution that can be used in an e-commerce store, in the current context of Nepal. Review has been done for different literatures related to e-commerce payment method, data from research report, the data from stakeholders' feedback and comments collected through questionnaires and survey. Two surveys were conducted, and Descriptive Analysis and Multiple Attribute Decision Making (MADM) methods were used to analyze and identify the most preferred payment method. Moreover, the most significant factor for choosing the most preferred payment option was determined. First survey questionnaire is focused on online shoppers' behavior in Nepal and the second survey is presented to the online e-commerce websites owners in Nepal. These questionnaire are used to collect both users and experts' opinion. Also ranking option is used using three different factors namely Social, Economic and Technical Factor.

After analyzing the survey results, it been identified that Cash on delivery is still the most prevalent payment method used in Nepal and Reliability is the main factor for using it. Lastly, conclusion and recommendations for better implementation of payment methods has been provided which recommends merchants, online shop owners and users to be more open toward newer payment methods and help expand the Nepalese e-commerce market domestically and globally.

**Keywords:** E-commerce, Nepal, Payment Gateways, Internet, Debit/Credit card

## **Introduction**

The global proliferation of the web has led to the recent growth in e-commerce. In a similar manner, viable business models have emerged involving the e-commerce methods and technologies related to it. Generally, we can say that e-commerce involves activities that relate to buying and selling of goods and services over the Internet (1). E-commerce has facilitated customers to purchase goods and services without having to go to the stores physically. Furthermore, before purchasing the goods, customers now have the ability to compare the goods and services offered by various vendors in the comfort of their homes. E-commerce has also facilitated real-time payment transactions and other business activities due to the openness, efficiency, anonymity, pace and accessibility characteristics of the Internet (2). One recent survey by e-Market stated that Business to Consumer (B2C) e-commerce sales worldwide will reach \$1.47 trillion in 2014, increasing nearly 20 percent over 2013. As the internet usage continues to mature across the globe, e-commerce growth will slow over time, settling around 10% by the finish of their forecast period. However, with sales reaching \$2.356 trillion in 2018, a 10% growth rate still represents over \$200 billion new dollars that year (3). Hence, to supplement the growing e-commerce business, various new payment methods have been developed and also at the same time the existing payment method are being constantly improved.

The trend of e-commerce business started in Nepal more than a decade ago (4). However, the constraints of strict government monetary policies, underdeveloped banking system, technological infrastructure and lack of established payment processing system for the e-commerce development are still present and no different than before. The growth of e-commerce business has been slow due to lack of knowledge, awareness, cash culture among the customers and other several limitations in e-commerce payment systems. Way of selling and purchasing, globally, and within the country has been nearly the same every year. Several Payment Gateways are being developed but they have their limitations due to legal, infrastructural and security issues (5).

## **Objectives and Methodology**

The primary objective of this thesis is to make an analysis of the current status and constraints of e-commerce payment methods in Nepal. The partial objective is to provide conclusion and recommendations for the development in e-commerce payment methods.

The methodology of the research was based on the study of the relevant books, journal, articles and analyzing information collected from the user and e-commerce store owners. Study was also undertaken by gathering secondary information from the webpages such as Google Scholar, Quora and several other online resources.

Firstly, the research tried to understand Nepalese user's perception about the e-commerce payment methods that were of avail. For this purpose, questionnaires survey method is used via forms.google.com. More than 60 responses from respondents residing in Nepal mostly between 18-34 years old were collected and analyzed. Descriptive analysis method was used in order to analyze the data as a statistical tool. Mean, Mode, Median and Standard deviation were used to identify the characteristics of the data collected.

Secondly, Analytical Hierarchy Process (AHP) matrix and scoring method is used for the data collected from the experts i.e. e-commerce website owners in Nepal. This methods is used in order to identify the current trends of e-commerce, and importance, efficiency and usability of the payment methods form the experts' point of view. Based on the theoretical knowledge and result of practical study, the conclusions and recommendations will be formulated.

## **Conclusion and Recommendation**

With the evolving nature of internet, the online shopping behavior of users have changed too. In past, many users were more inclined toward traditional ways of payment whereas these days, internet users prefer easier, faster, secure and widely available means of payment options. From the first survey and its analysis, it was known that cash on delivery is still the most preferred way of making online payments. This contradicts with the previous statement but given the situation of Nepal and the hindrance in proper implementation of better payment solutions which are mentioned in previous topic, high usages of Cash on delivery do makes some sense. Surprisingly, Card payment appeared to be the second most preferred method of payment, but this is not the case in reality. As there is no provision for Debit/Credit card usage in Nepal, this result maybe the case of users confusing payment gateways with Card payment system.

Secondly, experts' view on why Cash on delivery is more preferred method was calculated using MADM and AHP model. Amid the list of various factors, result showed that "Reliability" was the main factor for preferring Cash on delivery.

As there is a general trend of moving toward new and better payment options, the same can be said in context of Nepal. It is recommended that more and more merchants, online shop owners and users start using easier and secure methods in order to expand the market not just domestically but also internationally. Also, if government improves its banking policy, there may be more opportunities for different payment methods to flourish and provide users with wide range of options to choose from.

## References

*Electronic Payment Systems: An Analysis and Comparison of Types.* Yu, Hsiao-Cheng, Kuo-Hua Hsi, and Pei-Jen Kuo. 3, Taipei : s.n., 2002, Vol. 24, pp. 331-347.

Manzoor, Amir. *E-Commerce: An Introduction.* Saarbrücken : LAP LAMBERT Academic Publishing, 2010. pp. 30-40. 978-3843370301.

*The development of E-payment and challenges in Nepal.* MISHRA, B.B. 2008.

Bank, Nepal Rastra. *Monetary Policy for Fiscal Year 2014/15.* Kathmandu : Nepal Rastra Bank, 2014.

H. Russell Bernard, Rowman Altamira. *Research Methods in Anthropology: Qualitative and Quantitative Approaches.* s.l. : AktaMira Press, 2011. pp. 337-346.

*Understanding M-commerce payment systems through the analytic hierarchy process.* Y. Chou, C. Lee, J. Chung. 2004.

CZU.CZ. *Distance Learning Modules for Management Science.* *czu.cz.* [Online] 2007. [Cited: 2 23, 2015.] <http://orms.pef.czu.cz>.

Efraim Turban, Dave King, Judy McKay, Ting-Peng Liang, Deborrah C Turban. *Electronic Commerce: A Managerial and Social Networks Perspective.* s.l. : Springer, 2015. pp. 70-90. 0132243318.