



E-commerce for Development:

The Case of Nepalese Artisan Exporters





1

Introduction

Much of the hype of the new Information and Communication Technologies (ICTs) has been focused on its potential to wipe out geographical barriers and potentially created new markets for existing business and firms. In the late 1990s, the use of ICTs to foster commerce, e-commerce, was thus initially seen as one of the key drivers of the so-called ICT revolution. Five years into the new Millennium a more sober picture has emerged. E-commerce is certainly not a panacea although it has worked for quite a few companies.

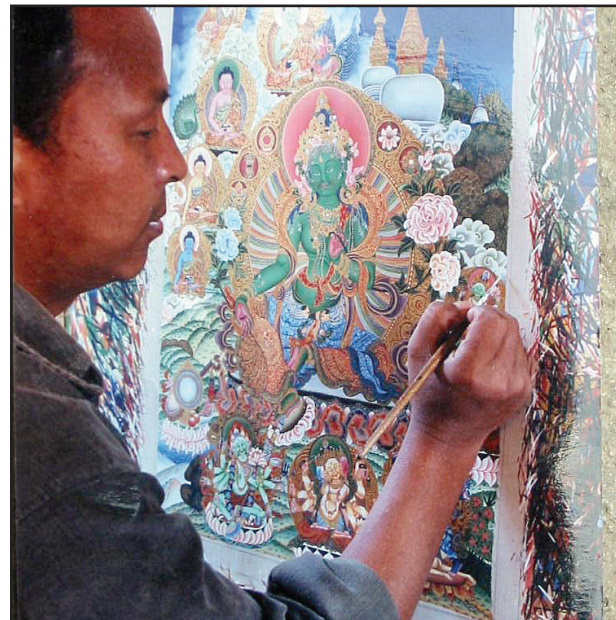
An issue that has perhaps been not properly addressed in these discussions have been the role that ICTs can play in supporting Small, Micro and Medium Enterprises (SMMEs) in developing countries. Most poor countries have very few large enterprises that could benefit from using ICT to reach national and international markets. As a matter of fact, most of the enterprises of these economies are SMMEs. This is particularly so when the focus is placed in urban poor and rural areas. Thus, targeting SMMEs in developing countries is one the ways in which ICT can help alleviate poverty and help them achieve the Millennium Development Goals (MDGs) agreed by all countries in 2000.

E-commerce for development: focusing on SMMEs

Over the past decade, the Internet has profoundly transformed the way business is conducted. The high profile failures of the “dot-com” bubble notwithstanding, many corporations, particularly in the US, have enjoyed success with e-commerce. Most experts on ICTs for development have long heralded the opportunities for “leveling the playing field” for SMMEs), especially in developing countries. The field of crafts held special interest because it provides significant employment in poor countries, principally for women in rural communities.

In truth, the number of success stories to date for artisan SMMEs adopting the same e-commerce techniques developed for the industrialized countries has been disappointing. The experience has been that conditions in most developing nations present significant obstacles that require a “pro-poor approach”.

PEOPLink.org is a pioneering non-profit organization that has managed to guide hundreds of SMMEs in 42 of the poorest countries in the world to engage in global e-commerce using its CatGen (for “catalogue generator”) platform (see page 2 for details). This study focuses on the impact of e-commerce on SMMEs in developing countries. It also studies the impact on income and employment of the use of CatGen by grass roots artisan enterprises in Nepal (full details at <http://sdnhq.undp.org/it4dev/e-comm>).



Painter reaches wider global markets on-line

Kunchan Lama has been a Thangka painter for 30 years struggling for a decent income because his only access to wider markets was through intermediaries. Today, along with 47 other artisans, he is associated with the Lama Painting School, and collectively sells their paintings online retail at www.catgen.com/thangka. During 2004, he sold approximately US\$3000 on-line including one for \$800 that would have only fetched US\$400 maximum on the local market.

2

Challenges Faced By SMMEs in Nepal

As in many developing countries, the Internet in Nepal is expensive, low quality, and unreliable. Phone lines are also in limited supply and frequently too filled with static to allow modems to operate effectively. In addition computer usage is often affected by brownouts or outright power outages. Therefore, any effective use of Nepalese SMMEs of an e-commerce solution requires off-line operation to minimize the need for using expensive, low quality bandwidth.

With a per capita annual GDP of \$1310, very few individuals or SMMEs in Nepal can afford to own their own computer along with the phone, printer, specialized software, and digital camera that are necessary for e-commerce. Therefore it is necessary to find mechanisms where many SMMEs can share one computer such as development organization offices, industry associations, private IT firms, or Internet cafés that, needless to say, are abundant in both the capital, Kathmandu, and the main towns throughout the country.

The use of computers and the Internet for business are not widely understood in Nepal, let alone e-commerce. Furthermore, being part of global e-commerce processes requires knowledge of many complex systems including on-line promotion, international payments, and shipping that are beyond the current limited capacity of most SMMEs. Moreover, during the “dot-com” bubble, expectations of e-commerce were raised unrealistically high by reports in the mass media and, together with the lack of success of early adopters, many entrepreneurs are now skeptical of

its relevance to developing countries. Finally, professionals with the skills necessary to create e-commerce catalogues are in short supply.

Thanks to the legacies of British influence and a thriving tourism industry, Nepal enjoys an advantage over other countries in having a well-established base of individuals speaking English, the principal language of the Internet. However, knowledge of how to leverage the Internet to attract buyers to on-line web sites is still very much lacking.

Nepal has large on-line opportunities for tourism and craft exporting. While the private sector, both foreign and domestic, has been active with a wide range of web sites, the government has not made on-line promotion a high priority.

CatGen (for “catalogue generator”) is an e-commerce platform designed specifically to meet the needs of SMMEs in developing countries. It is multilingual and non-technical users can operate it off-line in conditions of poor quality or expensive Internet connections. www.CatGen.com provides the client as free and open source software (FOSS) that can FTP a full function catalog (including credit card payment via PayPal) to any low cost server. For \$100/year users can upload their catalogs to the CatGen server for the added functionality of internal searches, web traffic statistics, direct posting to eBay, search engine optimization, and capability to participate in metamarkets. CatGen has been implemented 1400 times in 42 countries to date.



Muslim jeweler hopes son will help her sell on-line

Saribun Banu learned traditional Muslim glass jewelry from her mother at age 12. She is now 43 and lives with her husband, a watch repairman, and three grown children. Ms. Banu used to sell her beaded jewelry to merchants in the local market that paid her low prices and often with great delays. For the last two years she is happy to be producing for a firm that pays her on time and sells via the site www.catgen.com/glassbeads. She knows that her products are sold by the computer but does not understand how it works. She hopes that when her son finishes college she will form her own business and get him to help her sell over the Internet.

3

Overcoming Technical and Capacity Development Challenges

To analyze the challenges presented above, in July 2005 the UNDP undertook a survey of 31 firms engaged in e-commerce in Nepal. (full results at [#http://sdnhq.undp.org/it4dev/e-comm](http://sdnhq.undp.org/it4dev/e-comm) #). In these firms, 93% of the workers were women.

The study indicated that a significant and growing number of SMME exporters were indeed finding success on-line especially when using the CatGen e-commerce platform that was developed specifically for use by SMMEs operating under the previously described difficult conditions encountered in developing countries. As detailed in the on-line Appendix ([#http://sdnhq.undp.org/it4dev/e-comm](http://sdnhq.undp.org/it4dev/e-comm)), the modest costs of using this system are easily covered by the sales generated.

Normally e-commerce requires mastering a wide range of skills on systems ranging from Internet access, graphic design, web hosting, credit card payment, promotion in distant markets, and international shipment. Building this human capacity in a country is more difficult than overcoming any technical complication. Having all the mechanisms that address all these challenges facing poor exporters integrated into one e-commerce platform, however, makes it easier for the entrepreneurs to grasp the entire range of issues they must face. It also facilitates the capacity development of the human resources required to

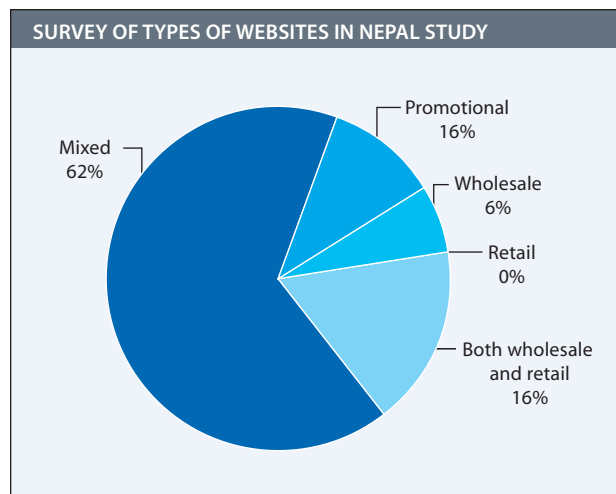
provide a range of complementary e-commerce services to local SMMEs such as digital imaging, graphic design, writing descriptions in good English, and translation into other languages.

One serendipitous advantage to modern, on-line businesses is that they aren't necessarily as dependent on sophisticated educational systems as conventional industries. To illustrate, four CEOs of leading digital corporations, Bill Gates, Michael Dell, Steve Jobs, and Larry Ellison share one significant characteristic – they didn't finish college. The experience in Nepal confirmed that a relatively inexperienced group of young IT professionals could, with the proper tools, create employment for themselves while providing e-commerce services to local SMMEs.

The largest impact of implementing this "pro-poor" e-commerce approach was on **income and employment**. Firms using it reported sales generated via inquiries to their sites averaging US\$1,103/mo. in 2004 and growing dramatically to US\$1852 in July of 2005. In 2004, these firms had 1672 (1555 women) jobs that were a directly attributable to the on-line promotion and this number rose by 250% to 4213 (3918 women) in the first six months of 2005.

However, just being able to effectively offer items on-line is only the first half of the challenge. Having potential buyers find their on-line catalogues and then trusting them is a very large problem for SMMEs in the developing world when they first engage in global e-commerce. For this reason it is important to use a platform that makes it easy for many individual vendors to work together on a "metamarket" that can generate the visibility and credibility necessary for e-commerce. The success of the CatGen users was aided by their participation in the metamarkets www.peoplinc.org, www.catgen.com/ifat, and www.fairtrade-groupnepal.org, among others.

International shipment of articles that are low cost relative to their weight continues to present a significant obstacle to e-commerce at the highest retail prices. One solution is for multiple vendors in a country to collaborate on consolidated shipping of orders to the major markets in the US and Europe.



4

Conclusions: Prospects, Sustainability, Replication, and Lessons Learned

The long-term perspective for e-commerce for Nepalese crafts looks very promising. Although relatively few SMMEs are currently aware of e-commerce and its benefits, as they observe the successes of the early adopters, they will move to emulate them. Obviously this shift will be facilitated by the availability of a system specifically designed for their needs. Especially as robust metamarket promotion, on-line payment systems, and consolidated shipping mechanisms are implemented, trust will be generated in the buying public and the income and employment produced by on-line sales will continue to rise.

The study showed that the average total annual operating cost (including the depreciated value of investment plus annual charges) of using the system is US\$ 107. This means that they are generating business worth 124 times their total annual expenses on their websites — a good indication that this initiative is sustainable.

Nepal is not at all unique in the array of challenges that it faces in global e-commerce. Therefore the successes encountered in Nepal can readily be replicated in many developing countries.

Since human capacity building is the main challenge to widespread dissemination of e-commerce among Nepalese SMMEs, training workshops should be promoted to raise general awareness as well as teach the necessary range of skills.

The main lesson learned is the importance of selecting the appropriate “pro-poor” approach to e-commerce that places the control of the process in the hands of the local entrepreneurs or IT firms. Ownership and participation of stakeholders is key for success of these initiatives.



Artisan entrepreneur's profits rise with web sales

Laxman Maharjan came from a farming family too poor to send him to school so he started making prayer wheels at his brother-in-law's workshop at the age of 12. Now, with 30 years experience, he has developed considerable skill designing new prayer wheels. He employs seven additional artisans to produce about 1000 pieces per month that they were selling in the local market for a gross profit of US\$3.00 each.

In 2004 he began selling into the international market via www.thirdworldcraft.com and www.es-ewanepal.com and his profit is up to US\$17.00 per piece. He recently sent his son to a CatGen e-commerce workshop and will soon develop his own on-line catalog.





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