

*Comprehensive  
Evaluation of e-Commerce  
in Nepal  
Using the CatGen Platform*

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## I. INTRODUCTION AND STUDY FRAMEWORK

### Motivation

Over the past two decades, we've witnessed the global network of computers connected to the Internet increase at an unprecedented rate. This development has been responsible for the introduction of an equally growing number of electronic commerce tools, systems and projects in recent years.

Why are we conducting this study? Because analysts still disagree on whether there is an effective means of using existing technologies to assist, support and sustain long-term e-commerce growth, particularly in emerging economies. Initial studies indicated that there was considerable promise in the CatGen platform, because of its innovative feature-set and strategic alliances with companies such as eBay, Oracle, Accenture and PayPal, which other platforms do not have. Our objective is to put this technology to the test, and determine whether our expectations would bear out, using CatGen.

### Study Objectives

Our study focused on the efficacy of CatGen in emerging economies, particularly those in which the benefit of artisans and merchants being readily familiar with technology is rare. The scope of the study would evaluate CatGen in terms of ease of use, feasibility in areas with limited Internet access, affordability, scalability, return on investment, user responses, benefits and drawbacks, and a comprehensive comparison of the platform against leading competitors. Case studies of several typical CatGen users would also be provided. The study was conducted in Nepal, because the concept of e-commerce is relatively new in Nepal.

The study does not address the issue of on-going training, business development programs and programs to make hardware more accessible in developing economies, although these particular concerns are projects CatGen and some of its strategic partners are currently addressing.

Could the CatGen platform be seen as a feasible means of assisting artisans, merchants and vendors in emerging economies, including women's initiatives and the developmentally disabled, create, build and sustain profitable e-commerce projects?

What, if anything, sets this technology apart in addressing the need for driving traffic and building integrated, seamless marketplaces globally? Does CatGen's technology foster a greater sense of "trust" between the consumer and artisan? In what ways does the infomediary approach of the CatGen platform transform the typical intermediary role into something more relevant to the needs of the 21<sup>st</sup> century marketplace?

In which areas does this platform excel, and in which areas are improvements needed?

## **II. THE CHALLENGE OF SUPPORTING LOW-INCOME POPULATIONS IN EMERGING ECONOMIES**

### **Challenges of Skill Level**

The majority of artisans and vendors in Nepal do not possess a background or education in technology or Internet marketing. There was a noted “status appeal” to having a website in the Nepalese culture; however, no real appreciation for what to do with that website, or how having a website could generate revenue and reach a broader market existed.

If it were to be successful, CatGen would have to create an environment in which the artisan could feel comfortable learning to use the technology, and begin increasing their revenue, almost immediately, to sustain the “learning curve”.

### **Significance of Interactive Communication in eCommerce**

Previous studies indicated that sales and revenue increase when potential buyers are readily able to communicate with the vendor or artisan directly. A level of interactive communication would need to be easily available within the platform to help the artisan achieve those goals.

### **Access Problems for Emerging Economies**

Internet connectivity is slow, expensive and often unreliable in emerging economies like Nepal. An effective technology platform would have to address the issues of frequently dropped connections, local database management, graphic importing and other concerns. Ideally, such technologies would enable the majority of work and maintenance to be done while offline, so that the expense of such activities could be kept to a minimum.

This is particularly important in villages with limited or no electricity as well as areas that are in remote areas, where Internet access is not readily available.

### **Affordability**

Artisans and merchants in emerging economies seldom have access to the kind of capital necessary to build attractive, user-friendly and effective storefront websites. Our research indicated that is one of the main reasons so many Nepalese SMMEs had websites, but lacked any kind of interactive, consumer-direct shopping capabilities on those sites.

We evaluated CatGen against the industries competitors in terms of affordability and revenue vs. cost.

## Developing Trust

Everyone says that developing trust is fundamental to e-commerce. Developing the trust of customers is fundamental for low-skilled, remotely located artisans and vendors, trying to market their goods in the global marketplace.

Our study indicated that by providing direct access to the artisans, through instant communication tools, and the CatGen *infomediary* system, called meta-markets, there was a considerable increase in the levels of trust potential buyers felt, resulting in dramatic increases in sales, we will talk about elsewhere in this report.

## III. MEETING THE CHALLENGES

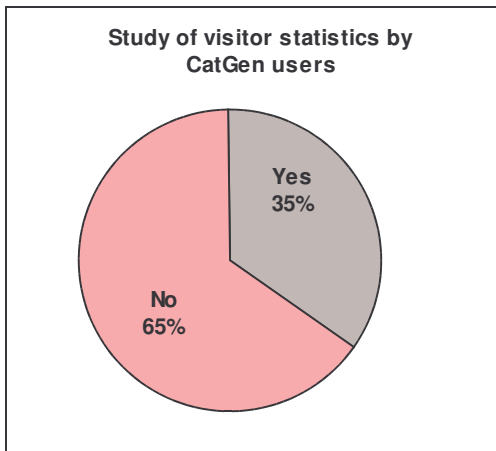
### CatGen Evaluated for Benefits to SMMEs

The initial phase of the research determined that there were several outstanding benefits to the CatGen technology platform, which address the concerns and objective focus of the study. Among these benefits are:

- **SMMEs and artisans no longer have to depend solely on the local markets.** CatGen pioneered the integration of traditional e-commerce with the ability to develop associations or catalogues-of-catalogues, called meta-markets. By enabling an individual vendor to leverage his or her exposure through the promotion of entire marketplaces of vendors, based on geography, product type, or any other characteristics desired, CatGen expands the boundary of the artisan or SMME's marketplace to national and international markets. They can get orders for their products from anywhere in the world, and feature their products within any number of meta-markets simultaneously. Closely integrated eBay listing capabilities, search engine optimization and the ability to create meta-markets was determined to result in consistent increases in revenues for every CatGen user.
- **Reduction in the long chain of market intermediaries.** The traditional distribution network consisting of layers of stockers, distributors, wholesalers, commission agents, retailers etc is reduced to a larger extent. Today, e-Commerce, reduces the multi-tier intermediary level to one-tier (just one web portal between the artisan and final buyers) or two-tier (web portal selling wares on behalf of the artisans to the business buyer). CatGen was found to provide significant advantages in this area by its innovative approach to consolidated shipping.
- **CatGen can provide relevant and detailed information to the buyers in seconds, rather than in days or weeks (when one has to depend on the postal system).** Testing the seamless integration of BoldChat within the CatGen client resulted in expected increases in the levels of trust and ability of the potential buyers to gain detailed information about their purchases in real time. In our evaluation, we noted that this significant feature is often overlooked by the majority of CatGen users.

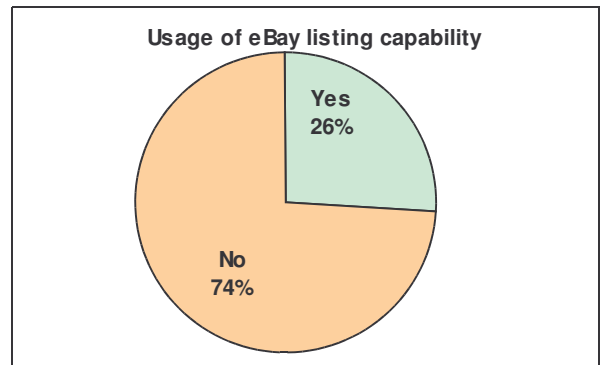
- **CatGen was also determined to provide relevant and detailed information to the seller.** Very few vendors and artisans in Nepal have learned the value of studying the statistical data available from their website visitors. Customising their websites to match their visitors’ interests, or developing e-market strategy is a totally alien idea at the moment to most Nepalese SMMEs.

Among the non-CatGen users, only a single respondent reported having studied the visitor statistics on their website. The remaining users have never studied it.



Among CatGen users, the majority (65%, n = 23) are “aware of its importance”, but have not yet considered studying the statistics available on their websites. Only 8 CatGen users (35%, n = 23) have studied the visitor statistics at one time or another. This indicates that there is a need for increased focus on training artisans and vendors more thoroughly about the important value of the data available within the platform.

- **Usage of eBay listing capability.** Only the CatGen users were asked about the usage of eBay listing capability. 6 users (26%, n = 23) have responded positively. All of them have listed their wares in eBay at one time or another with the help of Esewa and thirdworldcraft.com. They are satisfied with the result and the assistance provided by Esewa and thirdworldcraft.com. This indicates that an untapped opportunity exists for CatGen to further assist its clients to increase revenues through its integrated eBay listing feature.



- **Consolidated Shipping Innovations.** From the year 2003, when PEOPLink (the non-profit parent foundation responsible for the development of CatGen technology) first piloted its project of online selling from Nepal, it collaborated with ESEWA (Enterprise Support for Empowering Women and Artisans) to handle shipping consolidation and payment of producers.

The model is called LBIBO (little box inside big one) under which PEOPLink/CatGen receives order and payment through its website and passes it down to ESEWA, who then pass it on to producers in Nepal. Producers bring the order to ESEWA office and ESEWA, which packs it and addresses the package to the customers. Twice a month, orders are consolidated and put in big box and shipped to

CatGen’s U.S. Customs Agent through DHL, which takes about 4-5 business days. The Customs Agent then reships each packet through Priority Mail. After delivery confirmation is obtained, CatGen transfers money to ESEWA for producers after deducting its commission.

Our research has concluded that this model, responsible for an increase of \$20000.00 USD in sales its first year, is an effective strategy for addressing the need to assist artisans in keeping down the otherwise high cost of doing business internationally.

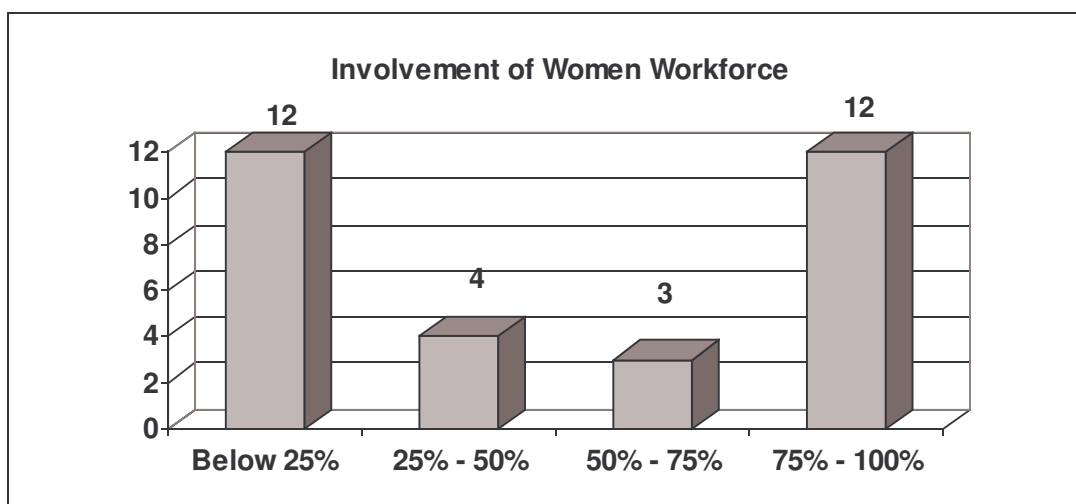
- **Training Opportunities Created.** Concurrently CatGen also helped ESEWA to conduct more than 25 e-commerce workshops for artisans, training approximately 250 artisan groups on the fundamentals of e-commerce and the use of the CatGen platform.

The initiative started by CatGen now runs office in Nepal and provides technical support, not only to Nepalese users, but to its global clients.

- **Developing and Training Local Workforce.** Since 2004, 6756 artisan-jobs have been created through the use of CatGen in Nepal. By contrast, 1058 artisan-jobs were created among non-CatGen users. Cross-tabulating the number of artisans benefited (employment generated) with respect to the enterprises/artisans having sales generated through the websites, we arrive at the figures represented in the chart below.

<b>Number of artisans benefited/ employment created due to e-commerce</b>	<b>Through CatGen platform</b>	<b>Through non-CatGen platform</b>
<b>In 2004</b>	1672	66
<b>In the first six months of 2005</b>	4213	180

- **Evaluating the Involvement of Women Artisans**
  - 23 organizations (74%, n = 31) have some involvement of women artisans in their work whereas 8 organizations (26%, n = 31) do not have a single woman involved as an artisan.
  - If we divide the women artisans’ involvement percentage into four groups, we get the following chart:



- If we cross-tabulate the women artisans’ involvement percentage groups vis-à-vis e-commerce platform used, we can see that women artisans involvement is higher in the organizations using CatGen platform.

Women participation in percentage	Using CatGen platform (n = 23)	Using non-CatGen platform (n = 8)	FTG organizations (n = 9)	Non-FTG organizations (n = 22)
Below 25%	7	5	0	12
25% - 50%	3	1	0	4
50% - 75%	2	1	3	0
75% - 100%	11	1	6	6

#### IV. RESEARCH DATA

##### Background History of CatGen/PEOPLink’s Involvement in Nepal

In order to effectively evaluate the impact of CatGen/PEOPLink in this particular study, we needed to understand the historical background of the company, and its involvement in Nepalese commerce communities. Since its inception, PEOPLink has provided e-commerce solutions in 22 developing countries, representing well over 100,000 artisans

worldwide.

Dr. Daniel Salcedo, CEO of CatGen/PEOPlink visited Nepal in 1998 during an IFAT conference. He delivered speech on e-business and opportunity for artisans, and conducted a workshop for members of *Fair Trade Group – Nepal*, teaching PEOPlink's model of webpage development, which allowed all members of *Fair Trade Group – Nepal* to develop their own websites under the *peoplinc.org* domain.

Since that time, CatGen has continued to develop on-going training, technology solutions and create jobs in Nepal.

### **Technical Features and Benefits of CatGen**

CatGen (Catalogue Generator) is an open-source, comprehensive digital communication platform designed specifically for use by Small and Medium Enterprises (SMMEs) and Artisans linking the players in international trade.

**Freely Distributed Software.** Users anywhere in the world can download the CatGen application from [www.catgen.com](http://www.catgen.com) for free. Trade associations (like [www.fairtradegrouppnepal.org](http://www.fairtradegrouppnepal.org)) can also distribute CatGen to their members on a CD-ROM if they want to. Despite the fact that it is free, it is in fact a very advanced technology solution (using XML, XSLT, etc); it is designed for integration with other standard e-commerce solutions and it is comparable in performance to products costing thousands of dollars.

**Program allows offline creation of dataset, design and maintenance.** The CatGen application allows users to work offline (without Internet connections) to create product and company information that they want displayed on their websites and published in their websites, such as the business association portal. Users do not need to be experienced IT professionals as the application has been designed for use by SMMEs and artisans (and/or their respective trade associations) with only a basic understanding of computing. The application is sufficiently flexible that each company data set is password protected so many firms can share the same computer if it is necessary (as in an Internet café or in one shared computer located in the association). When updating the website, only the changes made are replicated, meaning that connection time on the Internet is short and Internet connection costs are kept low.

**Integrated tool set allows for creation of paper catalogues and CD-ROM catalogues.** SMMEs use CatGen to maintain company and product information, and print cost-effective paper catalogues to support their offline sales activities. The users have complete control of their web site (content and presentation), and by having their site stored in a local database, can print off small runs of up-to-date paper catalogues for trade shows, mailings etc. They can replicate same content from the Internet to create compact disks (CD) for off line distribution.

**Ease of operation.** Updating information becomes extremely easy and when changes are made users can simply access the Internet and replicate the changes to the CatGen server. This feature is very valuable in allowing SMMEs to use their web sites and web catalogues that are up-to-date for customers, providing the most current pricing, inventory, contact details, new products etc. Our research considered this an important first step towards empowering artisans and SMMEs to start using their web presence for actual commerce - not simply as a static brochure.

**Searchable Catalogues.** For the buyer accessing the SMME website or the association portal (meta-marketplace), all product and company information is fully-searchable. As templates are created progressively for each industry sector- using industry standard data tags - this will not only improve search functionality but will also allow data to be exported to their parties such as e-marketplaces etc. This search feature is seamlessly integrated into the software and did not require technical skill from the end-user.

**Meta-Market Creation.** A business association (like IFAT - [www.catgen.com/ifat](http://www.catgen.com/ifat) ) can automatically create a master catalogue of all its individual member catalogues by simply using the same downloadable CatGen application. This allows the association to create a dynamic e-marketplace for all their members using exactly the same content the users are creating for display on their own websites. The association can earn money (or justify their membership fees) via this service which will likely drive significant traffic to the members due not only to a higher budget web marketing activity, but also due to the back-office support the association can provide. **Our research indicated that this particular feature is not available from any other e-commerce platform or provider.**

**Multi-lingual Capabilities Built-in.** CatGen is a multi-lingual platform. By default, users can publish their websites in up to three languages. CatGen menu system itself can be developed to any local language. At the time of this study, documentation for using CatGen was provided in English, Spanish, Portuguese, Japanese, Arabic, French, Russian, Korean and Chinese.

### **Areas Identified for Improvement and Future Enhancement**

While our research found CatGen capable of demonstrating remarkable stability, scalability, effectiveness and affordability as a powerful means of establishing or enhancing e-commerce in emerging economies, evaluations also found the following shortcomings and need for improvement:

- Unavailability of the option to use an alternate courier service to deliver the orders.
- It does not offer shipment tracking system.
- Unavailability of a web-based translation button for catalogue websites.

- Lack of a “customer reviews” option helps other customers to make-up their mind to buy or to buy more.
- Lack of a “customers who bought X, also bought this...” option, similar to the one implemented by Amazon.com
- Payment processing is tied exclusively to PayPal. Other merchant account options should be offered.
- Template selection should appear on the corporate website, and templates should be improved and enhanced greatly.
- Need for live technical support should be addressed.
- "Tell a friend" module would help generate website referrals by the visitors.

## **V. SUPPORTING DATA**

### **A. Study Methodology**

- The study is based on the responses from 23 (74%, n = 31) organizations using CatGen generated websites and 8 (26%, n = 31) organizations using non-CatGen based/generated websites. Altogether, 31 organizations have participated in the survey.
- The study initially identified 36 organizations using CatGen based or generated websites. The study team contacted them and based on the convenience of the respondents, 23 out of 36 organizations were interviewed.
- 8 organizations using non-CatGen based/generated websites were randomly selected and interviewed.
- The study covers three districts of Kathmandu valley – Kathmandu, Lalitpur and Bhaktapur and two districts out of Kathmandu valley – Dhanusha (Janakpur) and Kaski (Pokhara).
- The study has used open-ended and closed-ended questions to generated both quantitative and qualitative responses.

### **B. Demography of the Respondents**

- 25 respondents (81%, n = 31) are associated with/member of at least one business membership organizations (BMOs) and/or a trade group. 6 respondents (19%, n = 31) are either an individual artisan or a micro enterprise that are not associated with any business related organizations.
- 16 of them (52%, n = 31; 64%, n = 25) are associated with/member of more than one BMO and/or a trade group.
- 9 organizations (29%, n = 31; 36%, n = 25) are associated with Fair Trade Movement.

- 16 of them (52%, n = 31; 64%, n = 25) are member of Handicraft Association of Nepal (HAN), an umbrella business-membership organization to protect and promote the interests of handicraft sector.
- 6 of them (19%, n = 31; 24%, n = 25) have membership with local chamber of commerce and industry.
- 7 of them (23%, n = 31; 28%, n = 25) are also associated with sector-based BMOs including Handmade Paper Association, Nepal Pashmina Association, Central Carpet Industries Association and others.

### C. Number of Artisans Involved

- Artisans involved include the entrepreneur himself/herself, the artisans working as employees and the artisans from the artisan group attached/involved with the organization.
- 25 respondents (81%, n = 31) have provided data regarding the artisans involved with them whereas 6 respondents (19%, n = 31) were reluctant to share information with the study team.
- The respondents who have provided data, 19 (76%, n = 25) are CatGen users and 6 (24%, n = 25) are non-CatGen users.
- Based on the generated data, following is derived:

	<b>CatGen Users (n = 19)</b>	<b>Non-CatGen Users (n = 6)</b>	<b>Accumulated (n = 25)</b>
Total Artisans involved	8176	1055	9231
Arithmetic Mean	430	176	369
Median	48	48	48
Maximum Value	5025	800	5025
Minimum Value	4	4	4

### D. Product Lines Represented

The respondents are offering the following product line through their websites:

- Carpet
- Pashmina products
- Woolen/cotton/silk knitwear
- Hemp and allo garments
- Leather products
- Felt products
- Paper crafts
- Khukuris
- Oil paintings, water paintings, sketches, posters, charcoal
- Thanka, Pauva paintings
- Gold and silver jewelry
- Precious stones
- Bags and accessories
- Paper mask, painted mask
- Sculpture
- Frame
- Decorative window
- Leather and hemp bag, purse, shoe
- Decorative bamboo crafts
- Household textiles and garments
- Stuffed dolls

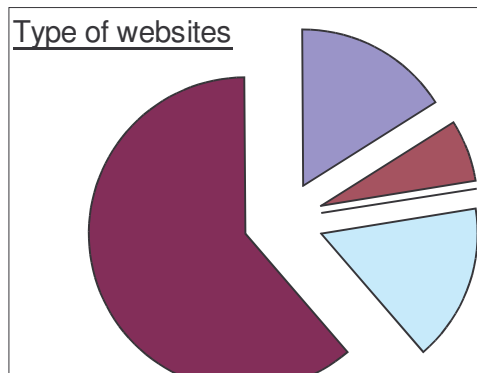
### E. Legal Status

- 17 of the respondents have legal status as an enterprise (55%, n = 31); 8 of them are working as the support organization (26%, n = 31); 2 of them are cooperatives (6%, n = 31) and 4 of the respondents are working as an individual artisan (13%, n = 31).
- Comparing between the CatGen users and non-CatGen users, the legal status of the respondents can be seen from the cross-tabulation provided below. It is seen that all the individual artisan respondents are using the CatGen platform whereas the majority of non-CatGen users are the private enterprises.

Legal Status	CatGen Users (n = 23)	Non-CatGen Users (n = 8)
Individual Artisan (n = 4)	4	-
Enterprise (n = 17)	10	7
Support Organization (n = 8)	7	1
Cooperative (n = 2)	2	-

### F. Type of Websites

Respondents were asked the type of their website. They were provided with four options: promotional website, wholesale website, retail website or combination of wholesale and retail website. The majority of the respondents (61%, n = 31) have chosen more than one option. They see their websites as the promotional plus the wholesale website or the combination of all the options. The enterprises in Nepal have not done much homework



on market segmentation and hence they do not feel comfortable doing retail business through the web. They are unsure on the characteristics and requirements of their target market (retail). This is reflected in the responses too as none has selected retail as the

type of their website. The respondents just feel that their website should make any visitor aware about the products available with them or the area of operation they are involved in (promotion) and if possible to get order in bulk (wholesale).

## **G. Website usage/management**

- 13 of the respondents (42%, n = 31) are managing and updating website on their own. Buyers are directly sending emails/fax or letter to them and they are responding in the same manner. These 13 respondents include 8 CatGen users (35%, n = 23) and 5 non-CatGen users (63%, n = 8).
- 5 of the respondents (16%, n = 31) let someone (an agent) manage and update their website. They are receiving emails/fax or letter through the agent and responding also through them. These 5 respondents include 3 CatGen users (10%, n = 23) and 2 non-CatGen users (25%, n = 8).
- 13 of the respondents (42%, n = 31) are using different options and combinations at the same time to use/manage their websites. These 13 respondents include 12 CatGen users (52%, n = 23) and one non-CatGen user (13%, n = 8). They are letting someone (or agent) just to manage and update their website but are directly corresponding with their buyers. Few of them are also using the local portal, [thirdworldcraft.com](http://thirdworldcraft.com), to sell their wares. Similarly, few respondents have also listed their wares in virtual market places such as [alibaba.com](http://alibaba.com) and [ebay.com](http://ebay.com) on trail basis. Esewa, the local e-commerce service provider is assisting the enterprises and artisans to get their wares listed on the local portal as well as the virtual market place.
- None of the respondents are relying solely either on listing their products/services on the local portals or just by listing in the virtual market places.

## **H. CatGen User Feedback:**

Part of the research relied on interviews with CatGen users, including questions about what they felt were the differences between the CatGen platform and other e-commerce solutions they had used or seen before. User responses included:

- CatGen provides more user templates.
- CatGen provides better colour combination options for catalogues.
- CatGen is easy to use, comprehensive and is more systematic.
- People can work offline to manage and update websites in CatGen.
- The Catalogue generator is quite helpful tool provided in CatGen.
- One CatGen user dealing in handmade paper products, who previously had a website in other e-commerce system, shared his experience that CatGen succeeded in generating inquiries for his products, whereas the previous system was totally ineffective as it could not generate any inquiries at all.
- Another CatGen user also dealing in handmade paper products feels that more inquiries are being generated as a result of CatGen's integrated search engine optimisation helping to make his domain name rank higher in the search engines.
- One of the Fair Trade Group member has used Geocities for his previous website. He is of opinion that although Geocities is a free site, people need good technical knowledge to develop or manage a website with that product. In CatGen, basic computer knowledge with little technical guidance is sufficient to develop and

- manage the website. The website can be created with ease and there are more personalised domain name available too.
- Another Fair Trade Group member operating from Pokhara is happy that since she started using CatGen, her website has become a dynamic site, by contrast to the previously static one. New product information/designs can be uploaded as and when necessary which was not that easily possible in the previous system she was using.
  - An enterprise dealing in glass beadwork shares that in previous system they had bad experience. They could not change and edit anything in the website as and when necessary. They have to go through long process and time to get the website updated. It is very inconvenient as, if they do not upload the information/design on time, it would be obsolete. He further feels that CatGen is very easy, since he can manage the site himself and is easier to edit.

## I. Cost Factors

The respondents were asked to provide cost breakdown for setting-up and managing their websites. They were asked to provide set-up cost, monthly cost and annual fees for cost implication analysis. Based on these costs, total annual operating cost for starting and running a website is also calculated. All the figures provided here are in US dollars.

### Set-up cost

Research indicated that an average US \$151 is spent by the enterprises/artisans to set-up their websites. Between CatGen users and non-CatGen users, CatGen users are spending in an average US \$122 as the set-up cost whereas non-CatGen users have spent as much as US \$236 in an average for setting-up their websites. Maximum amount spent by a CatGen user for set-up so far is US \$225 and the minimum amount is US \$50 only. In the non-CatGen category, maximum amount spent is US \$630 and the minimum is US \$140.

	<b>CatGen Users (n = 23)</b>	<b>Non-CatGen Users (n = 8)</b>	<b>Accumulated (n =31)</b>
Arithmetic Mean	122	236	151
Median	129	151	140
Maximum Value	225	630	630
Minimum Value	50	140	50

### Monthly cost

Monthly cost includes the cost of utilities including electricity, Internet access charge and telecommunication charges; material preparation cost (in case of website updating); cost of the person involved and time factor. But, as these figures do not represent a significant sum of money and the entrepreneurs/artisans take them as the normal process, only seven of the respondents (all of them are CatGen users) have provided some information regarding the monthly cost of operating the websites. They are spending in an average

US \$7 per month. Some of them are spending, as much as US \$10 per month and the minimum monthly expenses recorded is US \$4.

### Annual charges

Enterprises/artisans are paying in an average US \$126 in annual charges. Average annual charges for CatGen users is US \$82 whereas non-CatGen users are paying in an average US \$252 annually for their website upkeep. Maximum amount spent by a CatGen user is US \$254 and the minimum amount paid is US \$14. In the non-CatGen category, the minimum amount paid is US \$22. When it comes to maximum amount paid, one of the non-CatGen users, manufacturing and selling carpets, is paying US \$1667 as the annual charges. According to the lady who owns this business, it is the annual accumulated charges for website upkeep, Internet access and hardware maintenance.

	<b>CatGen Users (n = 23)</b>	<b>Non-CatGen Users (n = 8)</b>	<b>Accumulated (n =31)</b>
Arithmetic Mean	82	252	126
Median	70	46	70
Maximum Value	254	1667	1667
Minimum Value	14	22	14

### Total Annual Operating Cost

Set-up cost is a one-time investment for the artisans/entrepreneurs. In Nepalese context, such IT-related investments can be depreciated at the rate of 20% per annum. This helps the artisans/entrepreneurs to get invested money back into the system over a period of time. Recurring costs include monthly costs and annual charges.

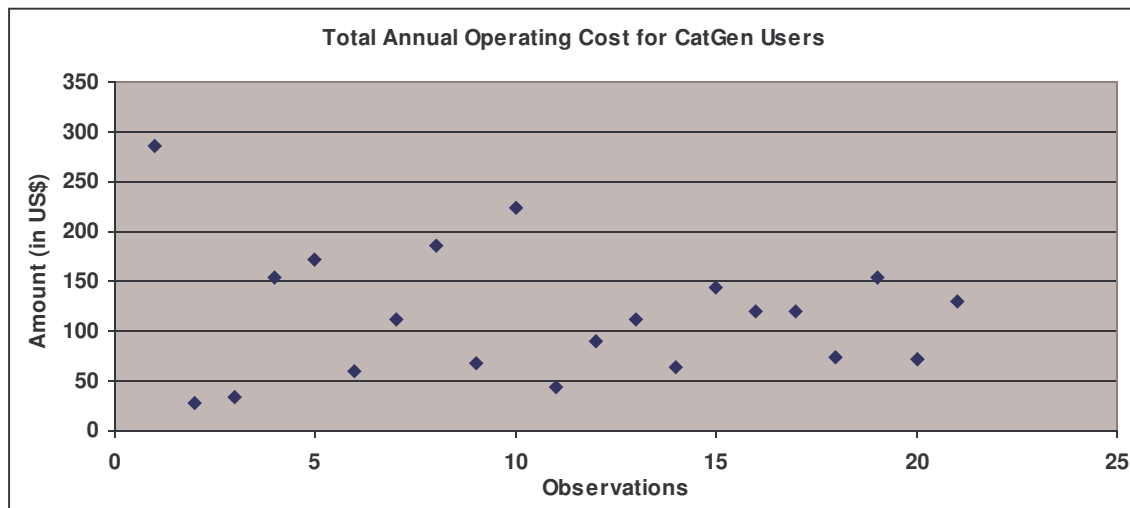
Total annual operating cost is the money spent within a year to operate the website. This includes the annual charges paid, accumulated monthly costs and depreciated value of investment. As less than ¼ of the respondents have provided information regarding the monthly cost, it may not be a good idea to use it for further calculations. Hence, we can calculate the total annual operating cost by adding the annual charges paid and depreciated value of investment. We can derive the formula as follows:

Total Annual Operating Cost (TAOC) = Annual charges paid + 20% of the set-up cost

Using the formula, it is seen that average TAOC is US \$156. For CatGen users, it comes down to US \$107 whereas for non-CatGen users, it goes up to US \$299. The table below provides a brief outlook on total annual operating cost situation.

	CatGen Users (n = 23)	Non-CatGen Users (n = 8)	Accumulated (n =31)
Arithmetic Mean	107	299	156
Median	112	76	102
Maximum Value	286	1695	1695
Minimum Value	28	28	28

For CatGen users, though TOAC lies between the two extremes of US \$28 and US \$286 with an average value of US \$107; majority of observations fall between US \$50 and US \$150. It is reflected in the scatter diagram provided below too.



### Satisfaction Level and Web Hosting Price

Both CatGen and non-CatGen users were asked whether they are satisfied with the price charged for web hosting under specific platform or not. Overwhelmingly, all the non-CatGen users responded positively. They do not have any problems regarding the price charged.

Majority of CatGen users (70%, n = 23) also responded positively. They are happy with what they are paying at the moment. One of them even added that he will happily pay even higher charges, if he could get more orders through the website. Another opined that the web-hosting price charged by CatGen is reasonable in comparison with others.

13% of the CatGen users did not respond on this issue at all and 17% of them have shown dissatisfaction with the pricing mechanism. Though they did not provide any alternative pricing figures, they just opined that it should be less than what they are paying at the moment. One of them further added that it is expensive for micro business like his. Similarly, another respondent was dissatisfied, as she has to pay for the services, which initially was provided for free.

## **Technical Support Evaluation**

Regarding technical support to solve problems in CatGen, 13 respondents (57%, n = 23) have positive feelings. 3 respondents (13%, n = 23) remained silent on this topic. 7 respondents (30%, n = 23) are dissatisfied with the technical support. They complain that the service provider's service is not sufficient. They need more services. They also complain that the service provider little bit slow and could not provide enough time.

## **Using CatGen to Generate Customer Inquiries**

Seventeen of the respondents (55%, n = 31) mentioned that they are getting inquiries through their websites. Five of the non-CatGen users (63%, n = 8) have noted such inquiries. The khukuri-dealer non-CatGen user is heavily dependent on his websites to sell his wares. He states that through the three websites that he owns today, he is getting at least 30 inquiries per day, i.e. more than 900 inquiries per month.

Among the CatGen users, 12 (52%, n = 23) have recorded inquiries generated through their websites. In an average they are getting 8 inquiries per month. Minimum number of inquiry received is 2 per month for some respondents whereas one of them is receiving as high as 40 inquiries per month.

Respondents are mostly receiving wholesale inquiries (32%, n = 31) or the combination of different types of inquiries (29%, n = 31). It is true for both CatGen users and non-CatGen users. 35% (n = 23) of the inquiries generated for CatGen users are related with wholesale information and again 35% (n = 23) are of the mixed nature. In the non-CatGen category, 25% (n = 8) of the inquiries are for the wholesale information.

## **Contacts Developed**

Among non-CatGen users, only three of them have developed some contacts with the inquirers. Two of them are doing some business with two contacts and one of them, selling painting arts, is successful to develop 8 contacts.

Among the CatGen users, 65% (n = 23) have developed at least a single contact thanks to their website. In an average, CatGen users have turned 15 inquirers into the buyers. Mostly these contacts/buyers are from USA and European countries.

According to our research, Third World Craft can be considered as the success story in this aspect. It has developed at least 200 contacts. These include both wholesale and retail buyers.

<b>Contacts developed</b>	<b>Among the CatGen users</b>	<b>Among the non-CatGen users</b>
Average number of contacts	15	2
Maximum number of contacts	200	8
Minimum number of contacts	1	2

### **Estimated Sales**

77% of the respondents provided information regarding their estimated sales and the sales influenced by their websites alone. This includes the information provided by 21 CatGen respondents (91%, n = 23) and 3 non-CatGen respondents (38%, n = 8).

Five of the non-CatGen respondents did not provide any information regarding their sales volume. They commented that not a single sale is generated or influenced through their websites. The websites for the non-CatGen users are not playing the role of sales-generators. Its role is just limited to having a presence in the cyberspace and waiting with a hope that may be someday someone accidentally visit and place some order.

Responses from CatGen users' cases were remarkably different. Except for two respondents (9%, n = 23), all others have recorded sales influenced through their websites at regular intervals. In 2004, 13 of them (57%, n = 23) have recorded sales generated through e-commerce. The total amount of transactions conducted through websites by these 13 respondents in 2004 stands at US \$172, 148. Average sales influenced in 2004 for the CatGen users (n = 13) stand at US \$13,242. The table provided below gives some light on different aspects of the total sales figure and sales influenced in 2004 for CatGen users.

Total sales in 2004 (n = 20)	US \$1,765,514
Total sales influenced by websites (n = 13)	US \$172,148
Influence Percentage in 2004	10%
Average sales in 2004 (n = 20)	US \$88276
Average sales influenced (n = 13)	US \$13242
Average influence percentage in 2004	15%
Maximum amount influenced by websites in 2004	US \$45000
Minimum amount influenced by websites in 2004	US \$211

The number of CatGen users having sales influenced through their websites has grown over a period of one year. In the period of one month alone (tentatively around June – July 2005), 19 of them (83%, n = 23) have recorded sales influenced by the website.

The total sales, generated through websites within a month for these 19 respondents are US \$35197. Average sales influenced in a month for them (n = 19) stand at US \$1852.

One of the respondents, [thirdworldcraft.com](http://thirdworldcraft.com), has generated businesses worth as much as US \$14000 in the period. The following table provides a picture on different aspects of the total sales figure and sales influenced in a single month of 2005.

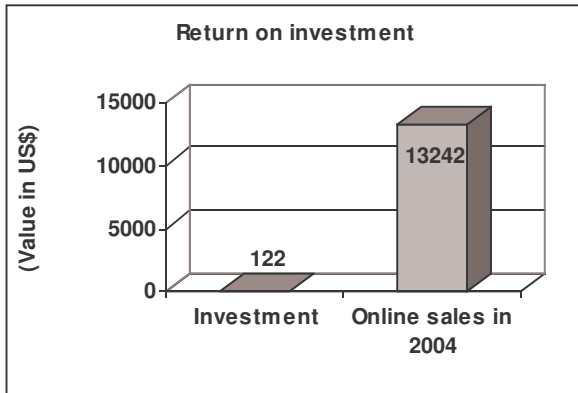
Total sales of a month in 2005 (n = 20)	US \$209359
Total sales influenced by websites (n = 19)	US \$35197
Influence Percentage of a month in 2005	17%
Average sales of a month in 2005 (n = 20)	US \$10468
Average sales influenced (n = 19)	US \$1852
Average influence percentage	18%
Maximum amount influenced in the period	US \$14000
Minimum amount influenced in the period	US \$28

### Revenue vs. Cost Analysis

In order to verify whether the money spent on the website is a sound investment decision or not, we have to compare the cost involved for website development and management, with respect to the revenue generated from those websites. Both CatGen users and non-CatGen users have provided information on set-up cost and annual charges. In the case of revenue influenced, effect is seen only in the CatGen user category with 21 out of 23 respondents recording sales through their websites.

In the non-CatGen user category, majority (63%, n = 8) have not recorded any online sales yet. Even among the three non-CatGen respondents who have recorded sales, only one (the khukuri-dealer) is getting online sales on regular basis and remaining two has recorded one-time small sales. The revenue figure in this category is totally dominated by the individual sales of that khukuri-dealer. Besides the khukuri-dealer respondent, others have recorded zero or negligible return on their initial investment and annual costs. Taking all these issues into consideration, it is not seen feasible to conduct revenue vs. cost analysis for non-CatGen category.

Revenue vs. cost analysis for CatGen users is conducted by taking into consideration the revenue generated through websites (in 2004) and comparing it with investment made (set-up cost), annual charges (in 2004) and annual total operating cost (in 2004).



### Return on Investment

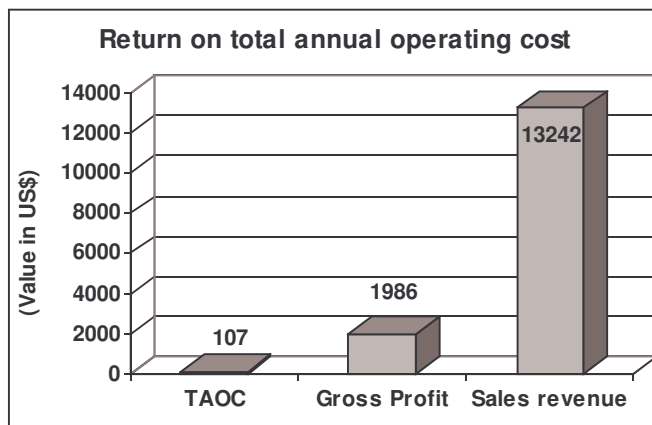
Set-up cost is the investment made by the artisans/entrepreneurs. Average set-up cost for CatGen users is US \$122. **The average online sales revenue generated for CatGen users in 2004 is US \$13242.** Therefore, on an average, CatGen users are not only recovering their investment within a year, but are also generating a return of more than 100 times of its investment value.

### Annual Charges vs. Sales Revenue

Average annual charge for CatGen users is US \$82. Average sales revenue generated through online transaction for CatGen users in 2004 is US \$13242. This shows that in an average, CatGen users are not only recovering their annual charges but are also conducting transactions worth more than 160 times of its yearly fees.

### Return on total annual operating cost

Total annual operating cost (TAOC) includes the depreciative value of investment made and the annual charges paid. The average TAOC for CatGen users is US \$107; i.e. in an average CatGen users are spending US \$107 on annual charges plus twenty percentage of the investment made is getting back into their financial system. Average online sales revenue generated for them in 2004 is US \$13242. Hence, in an average, the CatGen users are recovering their expenses on the website development and management plus also getting business worth 124 times of their total annual expenses on the websites.



Assuming that the CatGen users are making a moderate profit of 15%, the average profit (with respect to average revenue) comes to US \$1986 for 2004. This again shows that in an average the CatGen users are not only recovering expenses on the online transaction but are also making an average net profit of US \$1879 (deducting average TAOC from average profit).

## Revenue vs. Cost Analysis – Case Studies of CatGen users

- [peoplehandicraft.com](http://peoplehandicraft.com), dealing in paper crafts and glass items, is established in late 2004. It has spent US \$197 as the set-up cost and US \$30 as annual charges. The website features around 150 handicraft items. It seriously takes enquiries generated through the website and respond to them on time. This has helped in developing relationship with enquirers. Within a short span of few months, it not only has developed and maintained 20 business contacts, but also has generated online sales worth US \$42,254 in a single month.
- [asiancrafts.com.np](http://asiancrafts.com.np), featuring more than 50 items, is established in 2003. It has spent US \$127 as the set-up cost. It also pays US \$127 as yearly fees. Its total annual operating cost is US \$152.40 (20% of set-up cost plus the annual fees). The website owner is more than happy to pay this amount, because it has helped him to generate sales of US \$15,000 in 2004. Last month alone (between June – July, 2005), of his total sales of US \$5000, online sales accounts to US \$2000 (40% of the total sales). Some one hundred artisans (with 50% of them being women) are benefiting through this site. The site owner is happy with CatGen for providing him with good exposure on international markets and the increased sales. Today, this site is managed and updated by Esewa.
- [www.catgen.com/wsdp](http://www.catgen.com/wsdp) is a website of Pokhara based cooperative. The website was established in 2002. There are more than 60 bags and accessories listed in the website. It is generating around 4 – 5 inquiries per month and so far around 21 short-term/long-term contacts are developed through the website. This site is developed for free. The only liability is the annual fee of US \$113. In 2004, the website has generated business of US \$34,507. This amounts to 35% of total transactions done that year. The website is helping the cooperative to create employment for more than 200 women artisans. They are excited to do online business as it has generated business worth more than 300 times of money spent on maintaining the website in one year alone.
- [www.thirdworldcraft.com](http://www.thirdworldcraft.com) is a merchant website created in 1999. Today it lists more than 1500 items, ranging from felt products and knives, paper products to jewelry. Thanks to the CatGen platform, the website is automatically submitted in different search engines. The outcome is that this site comes on top in major search engines and has helped to attract more than 80,000 visitors in a single year. It is receiving around 30 – 40 inquiries per month.

So far, it has developed more than 200 retail and wholesale contacts. Around 500 artisans (70% are women) are benefiting from it. It has spent US \$100 as a set-up cost. Its other costs include monthly costs of US \$8 and annual charges of US \$100. Its total annual operating cost is US \$216 (summation of monthly costs for 12 months, annual fee and depreciative value of set-up cost). In 2004, it has recorded a total sale of US \$60,000. 75% of the total sale, i.e. sales worth US

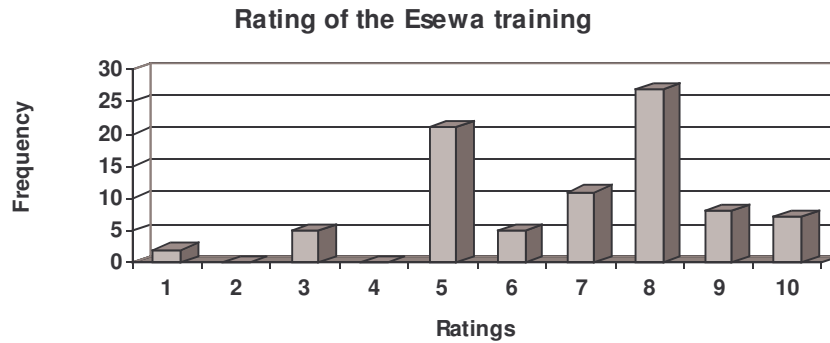
\$45,000, is generated from the website. Similarly, in 2005 also, it has sold online the wares worth US \$14,000 within a period of one month.

### E-Commerce Training Feedback for Esewa

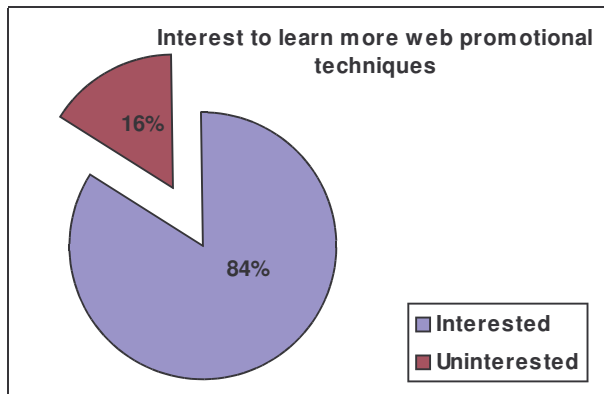
Esewa has been conducting e-commerce training for some time. After each training, it is collecting feedback from the participants. So far it has collected 94 feedbacks.

100% of the participants feel that the content of the training was useful. More than half of the participants (53%) believe that the time of the training was sufficient. But, 47% of the participants are against the idea. They comment that there was not enough time for practising what they have learnt. They suggest Esewa to provide more time for practical training.

86% of the participants feel that the presentation of the training was either very good or good. 14% feel it satisfactory. They commented that they have gained knowledge on e-marketing which is the need of the 21<sup>st</sup> century. When they were asked to rate the training by choosing a number between 1 to 10, with 1 being the lowest and 10 being the highest, the majority has rated between 10 to 5. The participants' rating is shown in the figure provided below.



## Interest shown to participate in future programs



Our evaluation indicates that CatGen should focus more effort and resources in developing on-going training and market support materials for users in developing economies, as a means of further enhancing its value in the field.

Twenty-six respondents (84%, n = 31) are interested in learning more web promotional techniques. This includes 19 CatGen users and 7 non-CatGen users. 5

respondents, who are not interested in such techniques, feel that they cannot benefit from learning these techniques as they have limited technical knowledge and do not manage the sites on their own.

Twenty-eight respondents (90%, n = 31) are interested in participating in a workshop on search engine optimisation. This includes 21 CatGen respondents and 7 non-CatGen respondents.

## CatGen's Response to Research

To address the recommendations of this study, CatGen has implemented the following steps:

- In September of 2005, an internationally recognised pioneer in the field of eCommerce and online marketplace development was brought on-board to create a wide range of training materials to assist artisans and trade groups in the quest for on-going e-commerce training and skill development.
- Current versions of the software have built-in features that will enable the user to reconnect to the Internet and resume uploading material from the point at which the connection was lost, without manual intervention on the artisan's part.
- Live BoldChat has been implemented, enabling potential customers to interface through live chat or inquiry messages from any page in the website.
- Advanced shopping cart features are presently under development.
- Improved user communications systems are being developed, which will notify every user, whenever an enhanced version of the program has been created.
- Funding is being sought to further enhance the traffic and scope of the various artisans reach, by further developing meta-markets and providing improved access to LBIBO (shipping practises).

## **VI. Concluding Remarks**

This study evaluated the use, performance and user experiences of CatGen catalogue generator in the fight to level the playing field of e-commerce, making it accessible to emerging economies, minority groups and women's initiatives.

The software and system would be considered successful if it significantly improves access, affordability, fosters buyer/vendor trust, and strengthens the emerging economy by providing increased sales, more effective movement of product to the end consumer and lowers overhead, so that a significant increase in the amount of every retail dollar is passed along to the vendor/artisan or SMME.

The result of our study indicates that CatGen tests favourable across the board, with remarkable demonstration of its ability to bridge the technology learning curve, provide affordable access to technology, reduce the cost of doing business online, and generate more jobs in emerging economies.

Particularly strong were the reviews of CatGen's innovative implementation of a tool for creating "meta-markets" as a means of dramatically increasing market exposure for local artisans and SMMEs.

CatGen provides an increasingly important link, as an infomediary, technology provider and ASP, between the global demand and provision of culturally rich, unique and quality arts, crafts, goods and services from SMMEs in emerging economies.

CatGen has continued to demonstrate a willingness to remain a proactive leader in the field, by immediately responding to the areas identified as needing improvement, and anticipating future needs with value-added features and benefits being implemented before this research was ever published.

These findings are consistent with the opinions of companies and organisations who have entered into strategic alliances with CatGen/PEOPLink, including: Oracle, Accenture, IFAT, the World Bank, PayPal, and Ambata.

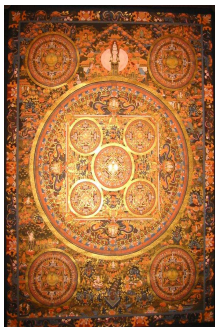
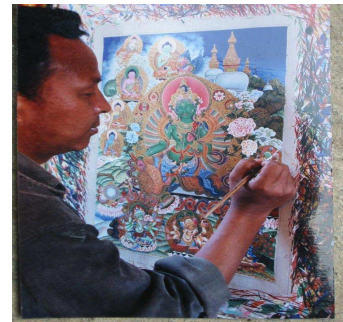
Our summary evaluation is therefore very favourable, and we look forward to watching the impact this pioneering company has on the global marketplace in years to come.

# APPENDIX I

## Sample Case Studies

**Case Study 1: Kunchan Lama** - By selling online, he has increased his additional net-profit by nearly 500% of the local profit margin.

Kunchan Lama is an artisan involved in Thangka painting, with over 30 years experience. Prior to using CatGen, it was hard for him to get good return on his paintings. Market-size itself was small and there was a layer of intermediaries before his paintings can reach the buyer. Today, along with 47 other artisans, he is associated with Lama Painting School, and collectively sells their paintings online. Now, he has direct access to larger market, and the layer of intermediaries has also been reduced dramatically. Currently, his average monthly earning is US \$200. He is selling online through [www.catgen.com/thangka](http://www.catgen.com/thangka) as a retail or B2C site and through [www.thangkapainting.com](http://www.thangkapainting.com) as a wholesale or B2B site. During the year 2004 alone, approximately US \$3000 worth of these Thangka paintings were sold online.



He has sold a single piece of Thangka with size: 35 x 48 inches, (as shown in the picture) online for US \$800. If he had to sell it offline in the local market, he would have got maximum price of US \$400 only. The cost breakdown of this Thangka is as follows:

Material (Canvas)	US \$15
Colour	US \$15
Wages (took two months to paint)	US \$200
Gold	US \$50
<b>Total production cost</b>	<b>US \$280</b>
Add: Administrative overhead	US \$55
<b>Total cost of Thangka</b>	<b>US \$335</b>
Profit margin of 20%	US \$65
<b>Local Selling Price</b>	<b>US \$400</b>
<b>Online Selling Price</b>	<b>US \$800</b>
Gross value added profit	US \$400
Less: Shipping and Commission	US \$80
<b>Net additional profit from online sales</b>	<b>US \$320</b>

## Case Study 2: Laxman Maharjan



Laxman Maharjan is a 42 year old artisan, living in the outskirts of Patan, where he starts his day by praying, and then begins making prayer wheels (Mane). With very little education, he started working at his brother-in-law's workshop at a tender age of 12.

Being a farmer family, their household income used to be considerably low, and forced him to leave education at a young age and join the workforce.

With many years of experience and skill under his belt, now he has designed several new types of prayer wheels. He also employs seven additional artisans at his workshop, and produces approximately 1000 pieces of Mane in a month. He mostly sells his products to local shops including Fair Trade shops.

After hearing that Internet and computer can help sell his products, he sent his son to e-commerce training conducted by PEOPLink. He is now thinking to develop his own website and sell directly in the international market. At the moment, his products are being sold online through ESEWA and Third World Craft. The prayer wheel, which fetches him a profit of US \$3.00 in the local market, is giving him an additional profit amount of US \$17.00 when sold through the websites of ESEWA and Third World Craft. The cost breakdown of that prayer wheel is as follows:



Material Cost	US \$2.00
Wages	US \$2.00
Overhead cost	US \$2.00
<b>Total Cost</b>	<u>US \$6.00</u>
Add: Profit	US \$3.00
<b>Local Selling Price</b>	<u>US \$9.00</u>
<b>Online Selling Price</b>	<u><b>US \$55.00</b></u>
Gross value added profit	US \$46.00
Less: Shipping	US \$24.00
Less: Miscellaneous expenses	US \$5.00
<b>Net additional profit from online sales</b>	<b>US \$17.00</b>

Online sales have helped him to generate 6-times more profit than what he would have received from the local sales. During the year 2004, he has sold online the Prayer Wheel of total approximate value US \$600.

## **APPENDIX II**

### **Comparison Study CatGen vs. Other Leading eCommerce Platforms**

#### **Research methodology**

We have selected 12 companies based on popularity. Data has been strictly collected from secondary (independent) sources, and used without modification. The criteria and dimension of services in this study have been selected based on commonalities and practical necessity.

1. Name and list of all the companies under consideration
2. Major classes of services service and sub-classes
3. Rating of top five companies in each class
4. In this study, we have also analyzed various services offered in terms of cost and performance.
5. This study concludes with recommendations of some services necessary in the context of developing country as ecommerce enabling factors for small- and medium-sized enterprises.

The following tables are provided:

**Table I** – Cost Comparison

**Table II** – Transaction Fee Comparison

**Table III** – Support Services Comparison

**Table IV** – Sign-up Features

**Table V** – Marketing & Promotional Tools

**Table VI** – Website Development Services

**Table VII** – Miscellaneous Characteristics

**Table VIII** – Customization

**Table IX** – Strategic Issues

**Table I**  
**Comparison Criteria: Cost**

Website	Cost characteristics for Comparison		
	<i>Primary Fees (Annually)</i>	<i>Startup Costs</i>	<i>Total Costs= (Primary fees + Startup costs)</i>
CatGen	\$100	\$ 0	\$ 100
GoECart	\$ 899 \$	\$ 124.95	\$ 1023.95
Yahoo! Store	\$ 1199.40 (Hosting Charges only. Transaction fees are extra)	\$ 50	\$ 1249.40
Miva Merchant	\$ 995 (Software price)	\$ 150 (Miva does not provide hosted applications)	\$1145
Storefront.Net	\$ 1068	\$ 199 (For comparable service)	\$ 1267
1ShoppingCart Pro	\$ 799	\$ 199 ( For one time setup)	\$ 998
InstantEStore	\$599.64	Not Available	\$ 599.64
Nexternal Solutions	\$ 3000	\$ 1000 ( For one time setup)	\$ 4000
PDG Shopping Cart	\$ 399 ( One time licensing fee)	\$ 150	\$ 549
Shop Factory Pro	\$ 389	\$ 150	\$ 539
X-Cart Gold	\$ 185	\$ 150	\$ 335
Volusion	\$ 1164	\$ 199	\$ 1363

**Table II**  
**Comparison Criteria: Transaction cost**

Website	Transaction cost characteristics for Comparison	
	<i>Merchant Account Cost (Monthly)</i>	<i>Transaction Fees</i>
CatGen	Not available yet	3.00%
GoECart	\$ 5.00	1.99%
Yahoo! Store	\$ 22.95	2.52%
Miva Merchant	\$ 15.00	2.39%
Storefront.Net	\$39.95 Setup fee plus \$13.95 per month. Total \$ 53.90	2.29%
1ShoppingCart Pro	\$ 18.95	2.21%
Volusion	\$ 15	2.19%

**Table III**  
**Comparison Criteria: Support Services**

Website	Transaction cost characteristics for Comparison	
	<i>Telephone Support</i>	<i>24/7 Technical Support</i>
CatGen	Yes	Yes via e-mail
GoECart	Yes	Yes
Storefront.Net	N/A	Free 30 days
PDG Shopping Cart	Only 90-Day limited time period	Only 90-Day premium Technical Support
OS Commerce 2.2	Not Available	No
Shop Factory Pro	No	Premium E-Mail support at \$59 / 3-months
X-Cart Gold	N/A	Free Technical Support for limited time period.

**Table IV**  
**Comparison Criteria: Sign up features**

Website	Sign up characteristics for Comparison	
	<i>No-Risk, FREE 30-day trial</i>	<i>Choice of Payment for Sign up</i>
CatGen	Yes	Credit Card payment via paypal or Send bank draft
GoECart	Yes	Yes
Miva Merchant	No	No. A credit card is required
Yahoo! Store	No	No. A credit card is required
1ShoppingCart Pro	No. \$3.95 for 30-Day Trial	No. A Credit Card is required

**Table V**  
**Comparison Criteria: Marketing and Promotion tools**

Website	Marketing and Promotion tools characteristics for Comparison	
CatGen		
GoECart		
Miva Merchant		
Yahoo! Store		
1ShoppingCart Pro		

**Table VI**  
**Comparison Criteria: Website Development Service**

Website	Website development service characteristics for Comparison			
	<i>Professional design and data entry services at extremely subsized rate</i>	<i>Reliable hosting</i>	<i>Search engine friendly architecture</i>	<i>Reliability of software and hosting</i>
CatGen	Yes	Yes	Yes	Software is free to use and can host to any server
GoECart	Yes	Yes	Yes	GoECart being a hosted application, our Technical Team assures its reliability and efficiency 24/7.
Yahoo! Store	Yes	N/A	N/A	N/A
Miva Merchant	N/A	No	No	No - The software is provided by Miva while the hosting is done by some other hosting company, so the technical support is questionable.
PDG Shopping Cart	N/A	No - PDG Shopping Cart is not a hosted service.	No	No - the Software is provided by PDG Soft while the hosting is done by some other hosting company, so the technical support is questionable.
Shop Factory Pro	N/A	No - Shop Factory Pro is not a hosted service.	N/A	No - the Software is provided by Shop Factory while the hosting is done by some other hosting company, so the technical support is questionable.

**Table VII**  
**Comparison Criteria: Miscellaneous Characteristics**

Website	Miscellaneous characteristics for Comparison			
	<i>Availability of courier service</i>	<i>Integrated Tracking of Shipments</i>	<i>Catalog Display Flexibility</i>	<i>Site Statistics provided with  standard  plan/e-mail</i>
CatGen	No	N/A	High	Yes
GoEcart	Yes	Yes	High	Yes
Yahoo! Store	No	N/A	N/A	N/A
Miva Merchant	No	N/A	N/A	N/A
Storefront.Net	Yes	No	Limited	Yes
1ShoppingCart Pro	N/A	N/A	N/A	N/A
InstantEStore	No	N/A	N/A	N/A
Nexternal Solutions	N/A	N/A	Limited	N/A
PDG Shopping Cart	N/A	N/A	N/A	N/A
Shop Factory Pro	Yes	N/A	Limited	N/A
X-Cart Gold	N/A	N/A	Limited	N/A
Volusion	Yes	Yes	N/A	Yes
OSCommerce 2.2	No	No	N/A	N/A

**Table VIII**  
**Comparison Criteria: Customization**

Website	Customization characteristics for Comparison			
	<i>Custom payment options without a Merchant account</i>	<i>Custom modification to shopping cart functionality</i>	<i>Custom tax tables</i>	<i>Customer defined product variants</i>
CatGen	Yes - COD Personal Check	Yes, Available on extra charge	Yes	Yes
GoEcart	Yes	Available for a charge	Yes	Yes
Yahoo! Store	No such feature available	Not available	N/A	N/A
X-Cart Gold	Yes	N/A	N/A	N/A
Volusion	N/A	N/A	N/A	Yes

**Table IX**  
**Comparison Criteria: Strategic Issues**

Website	Strategic Issue related characteristics for Comparison			
	<i>Works off-line for low bandwidth situations</i>	<i>Prints paper catalogs and can also burn CDs</i>	<i>Has links to eBay and Froggle</i>	<i>Can also generate a metamarket</i>
CatGen				
GoECart				
Yahoo! Store				
Miva Merchant				
PDG Shopping Cart				
Shop Factory Pro				