

THE WORLD'S LARGEST INTEGRATED INITIATIVE IN PUBLIC PROCUREMENT

About the Paper

An international developmental organization was looking to enable procurement professionals in its member countries to have an overview of the key concepts for effective procurement and rationale in decision making process. This paper covers how the organization implemented a system which benefits the learner, its country and the organization.

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IMPORTANCE OF PUBLIC PROCUREMENT IN ECONOMIC DEVELOPMENT

The economic significance of public procurement which is the purchase of goods, works or services by public institutions is critical for economies of developing countries because it accounts for more than 30 percent of their gross domestic product. The global public procurement economy is now estimated at \$9.3 trillion and gains of up to 10% are demonstrated on account of enhancing efficiency in procurement operations. Yet, of that global procurement expenditure, about \$4 trillion is estimated to be managed by non-professional hands, with minimal on-the-job orientation in the rules, regulations.

Given the complexity and volume of procurement requirements today, public procurement is more than an exercise in compliance with rules and regulations requiring merely performance of administrative duties by the procurement workforce. Even when a country's legal and institutional frameworks for public procurement are modernized and of a high level, the procurement system is bound to underperform as long as the procurement workforce does not possess the capacity to implement those arrangements effectively.

NEED FOR STANDARDIZATION PUBLIC PROCUREMENT CAPACITY BUILDING

The client is an international financial institution that provides vital source of financial and technical assistance to developing countries around the world. It is headquartered in Washington D.C with more than 10,000 employees and 120 offices worldwide. The client's research indicated a lack of standardization in skill up-gradation programs of Public Procurement / Procurement that was available, except for the Part 1 developed countries. For years, the client had invested precious time and resources to train select members of borrowing organizations and government departments. Again, most of these were face-to-face programs, and the sheer scale required to up-skill the millions involved in procurement meant that the

current model was not fit for the scale required.

Where thousands upon thousands of public servants are engaged in public procurement activities, the main challenge for improving public procurement systems is to develop and implement affordable and quality learning opportunities for procurement practitioners as well as for students who want to pursue a career in public procurement. The client's survey indicated in a few regions including Africa, South Asia and Middle East regions found that the main obstacles to capacity building and success in public procurement were insufficient training opportunities, lack of training materials in line with international standards,

inadequate funding and lack of resources such as trainers, and lack of linkages between career development and training. In these countries, expensive costs of procurement classes and inconvenient physical access to coaching venues have made procurement

education a limited option. Thus the need for an affordable and technology based 'out of box' solution that can be country neutral for the initial exposure with possibilities for further providing country specific learning was identified and recognized.

THE STANDARDIZATION PROCESS

OBJECTIVE OF THE PROGRAM

The client wanted to address the challenges of training, materials, trainers that the countries face by developing an online certificate program which would help standardizing the process of public procurement and gives visibility to the client that the users know the concept as per the regulatory guidelines.

The objective of the Certificate Program in Public Procurement is to enable the participants to get an overview of Public Procurement, become familiar with key concepts behind effective procurement and to understand the rationale behind Public Procurement decisions.

The client decided to learn and adapt from MOOCs, which are becoming increasingly popular with millions around the world signing up for courses. A MOOC (Massive Open Online Course) - like model made sense as it offered the convenience of any-time, any-where learning for the

millions of public officials who had to be up-skilled. The client wanted to make it available for free, to remove any barriers to signing up and learning.

The Client has access to number of Subject Matter Experts (SME) within and outside who assist in engagements with borrowers. They leveraged upon the SMEs' expertise, to build a course curriculum along with basic written-material content. The Client put together a core team of 50 SMEs who designed the course structure and supported in the raw content development, that fit the purpose of capacity building in public procurement in the region. Once this was done, the Client identified a lead SME and a learning consultant to advise in the development of the Certification Program.

DELIVERY METHOD

C&K designed & developed an interactive Online Certification Course aligned with the curriculum planned by the SMEs, using the raw content available.

The core idea behind the program was to provide a convenient and flexible mode for learners to acquire sufficient knowledge in the basics of public procurement and get certified. Hence the

basic course was provided as an asynchronous, any-time, any-where learning course. At the same time, it was prudent to ensure interaction between

learners and foster the social aspects of learning via blogs, talks, chat forums and Webinars. This would ensure holistic learning.



To enable these objectives, C&K put together a solution that comprised:

1. A Portal that invited potential learners to know more, sample a taster, register, learn, interact and much more. The portal was developed using open source technologies and incorporates a CMS for easy updates.
2. An open-source LMS, Moodle, has been customized and integrated with the portal to allow learner tracking, assessments and reporting.

3. Social aspects of learning - with enabling webinars, chat rooms, and forums
4. Analytics & Dashboards to track learners
5. Moderately Interactive content

COURSE DESIGN

The Certification Course was designed at 3 levels:

Level 1: Course Design: CPPP has three modules comprising eleven Units, which amounts to about 9 hours of online learning.

- Module 1: Introduction to Procurement and Public procurement (including Management Concepts and Techniques)
- Module 2: Public Procurement Operations

- Module 3: Public Procurement and Good Governance

The rationales for going for module based learning was to clearly articulate to the learner that there were three aspects of learning that they had to successfully complete to certify. A module and unit based course helped learners, who are working professionals, to learn at a time pace of their convenience. Each unit had individual learning outcomes that the learners could complete, bookmark and exit. All reporting for the course was kept at Unit level.

Level 2: High-level Design: Each Unit's coverage was aligned with the curriculum structured by the SMEs. Learning Outcomes were designed for smaller learning chunks and crafted using a modified version of Bloom's Taxonomy.

This model is created by Rex Heer of Iowa State University and was deemed to be the best fit for the requirements. The learning was cascaded across 3 levels on Cognitive Process dimension and 4 levels on the Knowledge Dimension.

- Cognitive Process Dimensions levels: Remember, Understand, Apply
- Knowledge Dimension: Factual, Conceptual, Procedural & Meta-cognitive

This Taxonomy model allowed for learning to be structured on 2 dimensions – better solution building and better role alignment. It made it easy to put together formative assessments to measure if the learning outcomes have been met by the learner.



Level 3: Low-level Design: To ensure that every learning outcome was met, each outcome was designed to the granular level of screens. A run-sheet was prepared

for each outcome, which was crafted by the Instructional Designer, and covered screen-by-screen progress. Each screen was designed with a balance achieved

between learning content and learning process. It was made so that it was neither too boring nor too exciting. The other balance that has been attempted and achieved by and large is between the learning modalities – Visual, Auditory and Kinesthetic. The Kinesthetic components are of course virtual, by making them undertake simple tasks periodically. A third level of balance has been applied by **giving** away some of the learning directly to the learners and **taking** some of the learning from the learners, by making them derive the learning from a construct.

Assessments Design: Since the audiences are working professionals, assessments are Formative. The Formative Assessments comprise of Module-end Assessments and Assignments. Learners submit their assignments for a peer review or discuss issues in the forums attached to each learning objective.

TECHNOLOGY:

This learning portal is built with a highly customized framework, with the help of open source tools like Wordpress, Moodle and PHP technologies. This is also compatible with open and single signing models.

The web and database servers are installed on Virtual Server with the following specifications

Web Server: OS: RHEL // CPU: QuadCore // RAM: 6 GB // HDD: 300 GB on RAID 6

DB Server: OS: RHEL // CPU: QuadCore // RAM: 6 GB // HDD: 300 GB on RAID 6

Learners need to clear module-end assessment before proceeding to the next module. This ensures the learners can understand complex concepts that come up in further modules and units. The pass criterion is set at 60% and learner is encouraged to repeat the Module and go for re-assessment. This cycle is kept on till such time as they clear this assessment.

The Certificate is issued if the learner has a cumulative score of over 60% of the possible score across all three Modules.

Each Assessment is made of multiple questions that come from a randomizer, with even the answers randomized to prevent the learner from memorizing and solving a question, in the unlikely event of the question re-appearing. Each question is a Multiple-Choice Question, with radio buttons to select, or drag & drop exercises, or sequencing exercises among others.

The servers are hosted in a Level 4 data center with certificates on Service, Security and mirroring along with regular backups and archiving.

In the 4 years since launch, 83,000+ learners have enrolled for certification. This is a very high level of registration, and engagement for a non-mandatory course.

LEARNER SUPPORT:

This is deployed at two support levels, 24 X 7. Level 1 support caters to generic queries and Level 2 caters to technical and functional queries.

BRANDING & PROMOTION

Digital marketing campaigns have been deployed to build up branding and curiosity for such a course, which resulted in high intake of registrations in a short span.

Used Social Media to allow prospective learners & existing learners (those who are on the Social Media) to connect with

<https://www.procurementinet.org/> via FaceBook, LinkedIn, Twitter, Google+ and YouTube.

Some amount of organic growth was delivered by using Google Adwords, which ensures that the MOOC comes out top in any search for training or learning in public procurement.

LIVE REPORTS & DASHBOARDS

A live Dashboard is available that allows managers of this program from the Client and C&K to track live users, analyse activities, traffic and take suitable course corrections.



PROJECT HIGHLIGHTS

The Certificate Program in Public Procurement (CPPP) is the first ever, free certification program delivered as a Massive Open Online Course (MOOC). CPPP was launched in March 2014 during the Second South Asia Regional

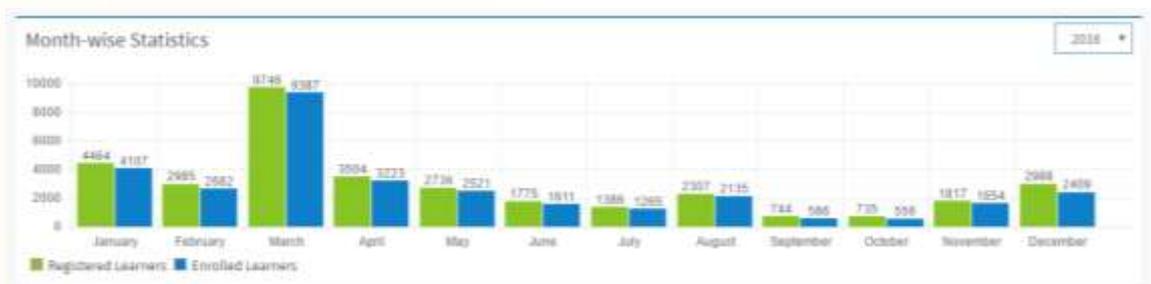
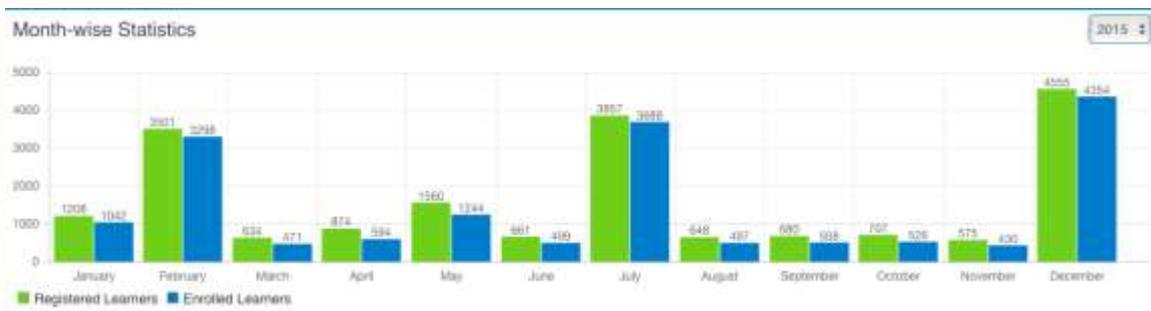
Procurement Conference at Islamabad, Pakistan.

The primary focus of the certification program till now has been South Asia region. India and Pakistan are two large countries in the region and 38,000+

learners have enrolled for this course and commenced learning. To train this number in the traditional model would have been impossible in the three years as the capacity of available programs for offline training were at about 1200 per annum 3 years ago. These numbers are scaling up rapidly and once a law for public procurement is enacted in the countries in the region, everyone would register and learn.

Since 2014, 83,000+ learners have enrolled for certification and over 11,000 have successfully completed their certification

The numbers show an increasing trend, with digital marketing and word of mouth driving up the registrations. The tables below indicate this clearly and a tipping point may soon be reached with monthly registrations consistently crossing 5 figures.



It is not easy to quantify the benefits from such Certifications, as the Client has no way to measure the impact on the ground. Feedback from learners and testimonials from India, South Asia and all over the World indicate a strong positive take away from the course. The testimonials are available on the home page of the portal.

Another positive indicator for the success of the course is the rapidity with which

learners are completing units and certifying. The screenshot below shows many learners trying to complete the course rapidly. Most of the recently registered learners tend to complete the course in a few days to maximum a week. This is partly due to the engagement within the course and the attraction of picking up a Certificate from the prestigious client that will add value to their profile.

Completed Learners

Name	Username	Email	Enrolled on	Certified on	Score/Total	Aggregate
Wahidul	wa	wahidul@gmail.com	Oct 21, 2016	Nov 26, 2016	24/25 (96%)	Pass
UJ	ujshahid	ujshahid@gmail.com	Jan 2, 2017	Jan 22, 2017	20/20 (100%)	Pass
#1 Shubho	#1shubho_google_123456789101112	#1shubho@gmail.com	Mar 25, 2017	Apr 1, 2017	24/25 (96%)	Pass
#11 Nahid Kumar	nahid	nahid@worldbank.org	Mar 26, 2016	Jun 22, 2016	24/25 (96%)	Pass
#12 Shubho	shubho_ama	ama.shubho@gmail.com	Oct 27, 2016	Nov 22, 2016	22/25 (88%)	Pass
#1304 Nahid	nahidkumar	nahidk1@gmail.com	Nov 24, 2016	Dec 1, 2016	24/25 (96%)	Pass
#13	amrindata	amrindata@worldbank.org	Mar 3, 2016	Apr 5, 2016	24/25 (96%)	Pass
#1304677462704	gala11	nahidkumar@yahoo.com	Apr 4, 2016	Apr 1, 2016	20/20 (100%)	Pass
#1304677462704	amrindata	amrindata@worldbank.org	Jun 5, 2016	Jun 4, 2016	24/25 (96%)	Pass
Nahidulha Zaid	nahidulha_google_123456789101112131415	nahidulha@gmail.com	Jan 5, 2016	Jan 6, 2016	24/25 (96%)	Pass

FUTURE OUTLOOK:

There will be a geometric growth in numbers who enroll and get certified for the CPPP, due to digital marketing, word of mouth and most importantly tie-up with strategic partners in countries and specialties. Joint Certification of MOOC is launched in India, Sri Lanka and Maldives and the Governments of Bhutan, Pakistan, Egypt, Senegal, Cameroon and Ivory Coast have launched these as officially supported initiatives. Institutional arrangements are also established with about 15 academic and training institutions for promoting the MOOC course. The CPPP course is also recognized and disseminated as a learning opportunity in public procurement by OECD, USTDA, ADB, etc.

Another such tie up is being developed with 15 Francophone countries in Africa for developing the PDPP in French and with the Government of Bangladesh for joint certification of the programs.

The Client also expanded the learning platform, in 2017, into a more integrated framework – iNET – Information, Networking, Education and Transaction to enable public procurement professionals connect and engage with one another.

Based on the success of the program in English, the Client has launched variants in multiple languages during 2016 to cater to learners around the World. These cover the common UN languages – French, Spanish, Portuguese, Russian, Arabic & Hindi.