Government e-Market Place – GeM 3.0

Catalogue Management on GeM 3.0

Change History

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This is version 1.0

Metadata of the Standard

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1. Introduction

With a mandate to create and operate a marketplace with systems, that support procurement related decisions by buyer agencies in government, GeM design is premised on the fact that for general goods, the requirements across buyers are to a great extent very similar and thus amenable to generic standardization. This standardization that would increasingly lead to a customized market, for government across the country and would offer a transparently evolving price framework, that is both comparable and competitive, at the same time.

Government buying process is, at the core based on specifications and brand unaware/ neutral. Hence, Unambiguous Specification of Products and Services becomes the heart and soul of the buying process. Due to the informal nature of natural language it makes it nearly impossible to define product specification in plain English that is completely free of ambiguities. Therefore, a truly unambiguous technical specification (TP) must be built on top of a formally specified language / data model. GeM Catalogue Management System (CMS) attempts to embed and operationalize the standardization mentioned above in the GeM Marketplace. By dynamically leveraging the market availability of products and to an extent services, and in turn mining their specifications empirically to cull out key and common attributes, the CMS is designed to evolve and sustain a price structure that is comparable and competitive not only within Gem but also without.

Direct Purchase to bids and RAs are all aligned and coupled with the marketplace to ensure that procurements decisions are always current and easily explicable (reasonable) and further reinforced with complete price legacy of the product on GeM. Legacy feature (Last Purchase Price) builds on every procurement made and enriches the decision process of the next buyer of the product/service.

2. Existing Processes on GEM to enforce Price Reasonableness

1. Force Product Comparison during buying process for carts greater than 50K.
2. Force BID / RA during buying process for carts greater than 30L.
3. Highlighting the least cost item based on specification (brand unaware) in search.
4. Price comparison of products with third party websites.
5. Highlight last purchase price of item in cart during buying process.

3. Additional processes to be launched on GEM to enforce Price Reasonableness

1. Highlight Price/Purchase price trends of products during buying process.
2. Demand Forecasting.

3. Track and Alert Price Fluctuations on carted items.

4. Challenges to Price Reasonableness

The top challenges that need to be addressed to achieve a higher degree of price reasonableness on GEM are as follows:

1. Accurate classification of products and services.
2. Unambiguous Specification of Products and Services based on our learnings so far.
3. Sanitization of existing products based on (1 & 2)
4. Concept of Master Catalogue

Addressing the above problems will drive:

1. Standardization of goods and services offered on the GEM platform
2. Standardization will in turn help make the offerings generic and not skewed towards brand/seller.
3. Remove duplication of products.
4. Generic offerings will also make sure that products can be compared and contrasted to a high degree during the buying process (including BID/RA).
5. Generic offerings will provide a level playing field and drive competition amongst sellers.
6. Enable matching of products (to a higher degree) during price crawl across other market places.
7. Standardization of MRP and bounds for list price.

   The above will drive Price Reasonableness on GEM.

5. Catalogue Management System on GeM

To achieve the above GEM will have a Catalogue Management System (CMS) which will provide the following, amongst others:

1. Open, global, multi-sector standard for efficient, accurate classification of products and services.
2. Unambiguous Specification of product and services to enable accurate product identification and comparison.
3. Product Registration / Sanitization driven by (1)
4. Powerful search engine.
5. Price Monitoring.

5.1. Categorization

After a detailed evaluation of the various classification systems (UNSPSC, eCl@ss, GPC, CPV, HS, NAICS) used in private and public-sector procurement, GEM will use the UNSPSC classification system. UNSPSC offers a global classification system that

a. Enables electronic commerce and provides the foundation for spend analysis
b. Supports both product and services
c. Is the dominant Code set used globally and hence enables data sharing.

UNSPSC is a four-level hierarchy coded as eight-digit number, with an optional fifth level adding two more digits. The four primary levels of the code are: Segment, Family, Class and Commodity.

5.2. Category Management

Category Management sub-module will let a user:

1. Search for an existing category.
2. Add a new category (subject to approval)
3. Manage an existing category
    a. Manage category configuration. Category configuration for services will vary from that of a product. Table 1 identifies the configuration list for products.
    b. Manage Category Technical Parameters.
    c. Manage Usage Definitions.

5.3. Technical Product / Service Specification

Each category of product or service being unique, the features/ functional capabilities / technical properties of items in the category can be identified and abstracted as a well defined (time variant) property set generally referred to as Technical Parameters (TP). The TP of a category not only identifies the key parameters that define the properties/features of products in the category but also the precise definitions of the parameters with value sets.

5.4. Process

For defining technical specification GEM will adopt the below mentioned process where and when applicable. Each category to have an owner / team to

1. Work with OEMS / Largest Sellers to identify the latest / most sought after / standard products available for sale in the market.
2. Derive the generic property set that best defines the products in the category.

3. For each property identify the value set that best identifies the items that are currently offered in the market.
4. Iterate (1) through (3) with time.
5. Software products / Services will have their own nuances as they differ markedly from products.

The output of the above process will be incorporated in CMS to manage lifecycle of product / service data.

5.5. System

CMS will have a data model for defining Technical Parameters of category. The data model will help enforce the definitions in the system to

1. Unambiguously define a product
2. Force standardization of products
3. Compare products within a category

5.6. TP Data Model

The Technical Parameters will built on a Data Model which is flexible and structured. It's flexible enough to cater to the diverse categories in GeM and also to satisfy the different use cases encountered in Government Procurement. Structure in Data Model ensures that data can be easily interpreted and validated. TP Data Model has strict validation rules built in to ensure that quality and consistency of data and in turn enforce standardization. The Data Model can be extended as and when required to support new property definitions.

6. Benefits to Buyers

1. A good classification system of products and services will help locate item(s)/item clusters of interest with ease. Moreover, a guided system can be provided for novice users for the same.
2. Genericity of products will help buyers to objectively compare and contrast products.
3. Generic nature of products will reduce product clutter.
4. Generic nature of products will lead to increased competition amongst sellers in turn leading to reduced price.

7. Benefits to Sellers

1. A good classification system will provide increased visibility of products by reducing the probability of wrong classification.
2. Generic nature of products will help reduce chances of product preference (of specific sellers) by virtue of non-standard product property.
3. Easily identify other offerings on the market and compete.
4. Ease of use for novice users.

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