

# THE PRODUCTION PROCESS AND QUALITY CONTROL

- **INTRODUCTION:** Quality offers trust, goodwill, confidence, reliability and satisfaction to both the producer and the buyer.
- For handicrafts to develop and become a major player within the economies of member African states, Quality should never be overlooked or under-estimated.
- Good Quality has been the key, and still is, to successful business relationships: this is where we find the basic principle of customer retention.
- It involves the verification and determination of whether a product or service meet or exceed customer expectation.

- Quality assurance and control standards have challenged the producer and exporter throughout the handicraft value chain across West Africa.
- The lack of quality management systems has cost exporters enormous headache as well as a loss in profit and productivity. In Ghana alone, there have been many instances of exporters having to absorb hefty charge-back fees for products not up to buyer specifications.
- This also results in the loss of buyer confidence, smaller and fewer orders, if orders continue at all.
- One of the greatest challenges facing the handicrafts value chain is the need for quality and consistent design inputs with follow-up training and mentoring. The market clamours for fresh designs within its aesthetic sensibility, without which African producers cannot compete nor grow their market share. **THE CALL IS FOR CONTEMPORARY ARTIFACTS...**not necessarily the traditional designs but an Adapted form of this...a design that matches current demands and trends

- As quality control and assurance are important to the professional handicraft buyer, the ISO 9001:2015 document could be useful to the more developed production companies. ISO certification for quality management is valuable for larger businesses, it will matter less to handicraft producers and buyers.
- All buyers, large or small, expect that home décor products will be the same as the sample. A common complaint among buyers is that samples are perfect but the production quality is not the same.
- To ensure consistent quality the producer must make at least 3 samples, one for the buyer, and one to use as an in-workshop guide and the 3<sup>rd</sup> for keeps(backup).
- Simple QA systems could include sizing templates, dye or paint mix recipes and the like to be distributed to production facilities, and an inspection procedure during the production process.
- Though this may add expense, particularly at the beginning, it will more than pay for itself in satisfied customers who will have increased confidence to order more and will result in fewer chargebacks for poor quality goods.

- **Quality Management systems are a particular problem in the basket value chain as most of the production is done in the villages, often far from the capital where the buyer agents and exporters reside, making implementing a quality management system even more difficult and costly.**
- **Ghana: The basket value chain is comprised of reps in the Bolgatanga region. These reps could be trained in quality management systems and methodologies, along with partnering exporters.**
- **As Sierra Leone has emerging entrepreneurs who are beginning to work in the villages, early training in quality management would set up the system right from the beginning.**
- **Good quality management is a key issue for buyers. Producers pay a steep price for poor quality management in the expensive charge-backs for poorly made products and can render a major order a loss rather than profit making.**

## DEFECT CLASSIFICATIONS:

- **CRITICAL DEFECTS:** Hazardous, unsafe or potential risk for consumer. Sharp edge, point, corner that can bruise or pierce the skin and/or cause injury.
  - Violation of any US, UK, EU or any applicable regulation in the selling country.
  - Evidence of live insects (bugs) infestations
  - **MAJOR DEFECTS:** Negatively affects overall appearance ,durability or performance of the item
  - Non-compliance with specification or approved samples.
  - **MINOR DEFECTS:** Does not significantly compromise appearance, durability or performance of item.
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- **LOCATION OF THE DEFECT: PRIMARY VISUAL SURFACE:** Top, front, sides, always in view of customer during normal use.
  - **SECONDARY VISUAL SURFACE:** Internal areas and sides ,backs and underside.Secondary surface that are partially in view by customer duringnormal use such as the underside and backside of item
  - **NOT VISUAL SURFACE:** Underside and back against the wall, floor etc. Non-visible area, rarely in view by customer during normal use.

## **AREAS OF DEFECTS :**

**A: material: eg. offensive odour, flaking, insect infestation etc**

**B: fabrication: eg. deformed, excessive glue, rough edges etc**

**C: finishing: eg. Scratch on surfaces, sticky or tacky finishing, mould etc**

**D: functionality: eg. Item not level, not as approved sample**

**E: product safety: eg. Warning labels incomplete, product does not endanger user, sharp points etc**

**F: packaging (cartons, labels, markings): eg. Incorrect markings, wrong labels, wrong price tags, poor cartons etc**

- **WHAT IS QUALITY ASSURANCE** : Quality assurance attempts to improve and stabilize production (and associated processes) to avoid or at least minimize issues which led to the defect in the first place. It is process-oriented ( whereas Quality control is product-oriented)
- **Material, in-house/factory processes/production (du-pro), finishing and packaging are essential processes worth considering for a successful QA application**
- **The Shewhart cycle (Dr W. Edwards Demings) is a 4 step tool used to determine QA: PLAN, DO, CHECK AND ACT (PDCA)**
- **PLAN: Establish objectives and processes required to achieve desired results.eg. Materials, inspection process, type of finishing etc**
- **DO: Implement processes established**

- **CHECK:** Monitor and evaluate the implemented processes through results testing against objectives .Eg: surveys, feedback etc
- **ACT:** Apply actions necessary for improvement if results need changes. Eg. Total revision in manufacturing process to correct a technical problem.
- **PDCA** is quite effective and as it analyses existing conditions and methods used to produce the handicraft/item. The goal is to ensure that excellence is inherent in every component of the process. It also examines whether the steps are used are appropriate for the time and conditions. Eg: Solar dryer during rainy season as against gas kiln
- **THE ARTISAN:** Artisans /Producers need to plan their production quite well to maximize returns and or minimize cost
- **Organize production for efficiency**
- **Review production systems regularly**

- **Avoid waste and introduce use of templates, stencils etc**
- **Production team should exercise great caution and care to reduce damages**
- **Introduce specialization within production line.**
- **A well-thought plan regarding raw material needs and on-time acquisition . Eg large stock purchasing before christmas season to reduce unit cost and higher prices for smaller quantities ,time wastage in multiple carriage inwards ,extra transport cost etc....good storage facility so raw material quality is maintained...good production processes and factory lay out...good inventory to ascertain material use...well-conceived production processes moving through successful supervision ,management and continuous checks and monitoring of finished products till merchandise has been completely handed over to customer/buyer. All these are very important considerations which eventually culminate in good and successful deliveries .**

▪The artisan should always ensure that protective gadgets/clothing are used. The price of safety (“safe-ness”) can only be assessed when there is an accident .-and accidents do occur (every time without warning)

▪Like the Medical doctor, so is the artisan...knowledge of your chosen field is essential to success- should possess adequate skills or training otherwise may have difficulty in understanding directions and requirements. The tools used should be of good quality as well...a blunt chisel will always require more force and will give you a wavy, unwanted cut. QC in terms of people concerns correcting issues.

▪The adoption of TQM : a management approach centered on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction and benefits to all members is important. There should be someone to carry this through..plan ,organize ,direct , lead and control (and assure/maintain): things are done right the first time so that defects and wastes are absent from operations.

▪The Artisan should always think of the Japanese 4 steps to TQM: KAISEN; continuous process improvement; ATARIMAE HINSHITSU: things will work as they should  
; KANSEI: examining how a product is used lead to improvement in the product itself and MIRYOKUTEKI HINSHITSU: the idea of aesthetics

- **THE PRODUCTION PROCESS:** Involves the way the item is made...we have already mentioned some aspects...but it is important that the production process itself is thought through carefully: factory lay-out, raw material availability, tools and equipment, type of labor etc. An haphazard production plan will surely result in a sub-standard product .
- **Development of a product line is also another effective means of cost reduction where the same template or product ideas are applied to a number of products**
- **Hand tools and other tools should be sharp and tough in strength. A bad tool will not help in the quality of a product**
- **get a fair idea of production capacity so that materials and production time can be estimated**
- **It is necessary to do a test run of production for a feel of the production and identification of certain difficulties**
- **some per centage of machine aided production is encouraged . Eg; lathe turning for regular shapes and neatness; band saw, sanding machine etc can also be used for speed**

- **Quality raw material should be used so as to get a final product of better quality. Eg: paint, wood, polish.**
- **Packaging of the item should be equally good otherwise....the item will look sub-standard..a beautiful woman in tattered garments?????**
- **All other instructions related to the item should be properly conveyed.... fragile: handle with care, this side up etc**
- **In short the production processes involves: A good production model/process to be followed by skillful artisans, using good quality tools and equipment on quality raw materials. The end result being good quality product**
- **QUALITY CONTROL: QA starts with the factory and ends with the factory. QC evaluates that the end product is satisfactory. A number of defect classification lists are provided and looked out for.**
- **QC is a process employed to ensure a certain level of quality (wellness, goodness, acceptability, standard, superiority, satisfaction) in a product or service.**

▪The basic goal is to ensure that the product provided meets specific demands or requirements (remember “Atarimae hinshitsu”?) and are dependable, satisfactory and fiscally sound

▪QC evaluates a product; this involves physical examination of the product ,process (or service) for certain minimum levels of quality. Products that fail to meet buyers specified standards (bearing in mind tolerance levels) must be rejected. A seemingly flawless size 12 shirt may be rejected because buyer standard was size 14. When there is a problem production should be stopped for a while so as to correct the issue (sometimes production may not stop entirely)

▪CONCLUSION: The workshop can be safe and only through the correct and proper observance of safety regulations. Periodic factory/workshop evaluation by a Quality controller can help maintain the safety of the workshop.

▪The artisan need to continually upgrade his skills and always use very good tools and equipment in order to deliver defect free products

▪A well-thought production plan ensures timely acquisition of raw materials and execution of product; which finally results in on-time delivery of good quality products to a satisfied customer ... then there is customer retention and return buying is assured for a long, long time