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Business Process Re-Engineering- A Game Changer for Cottage Industry in Rural India.

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Business Process Re-engineering (BPR) is a strategic approach to improving an organization's performance by fundamentally rethinking and redesigning its core business processes. The goal of BPR is to achieve dramatic improvements in critical performance measures such as cost, quality, service, and speed. By analysing workflows and identifying inefficiencies, organizations can streamline operations, eliminate redundant or non-value-added activities, and enhance overall productivity. Mrs. Shama Trustee of The Kishkinda Trust Anegundi, Hampi implemented the Business Process Re-engineering in the cottage industry administered by the trust. But implementation of Business Process Re-engineering is often a challenging in cottage industry due to the resistance to change from different stake holders including Employees and Administrators.

Background of The Kishkinda Trust: The Kishkinda Trust based in Anegundi, Hampi UNESCO World Heritage Site was founded by Mrs. Shama in 1997. The trust has more than 400 workers. The main objectives of the trust were to empower the local communities through various multi-disciplinary initiatives such as Capacity Building, Crafts and Design, Hospitality & Education through Performing Arts. The Trust has presence in Karnataka State and provides a Creative and Cultural Crafts made from Natural Banana Fiber. The product range includes Baskets, Mats, Trays, Hand and Laptop Bags Etc.

Cottage Industry in India: The cottage industry in India plays a vital role in the country's economy, providing employment to millions and preserving traditional crafts and skills. These small-scale, home-based industries produce a wide range of goods, from textiles, garments, and handicrafts to food products and pottery. Often run by families using traditional methods, cottage industries contribute significantly to rural development and the socio-economic upliftment of local communities. They also support cultural heritage by sustaining indigenous art forms and crafts. Despite facing challenges such as lack of access to modern technology, limited market reach, and competition from large-scale industries, the cottage industry remains a vibrant and essential part of India's economic landscape.

Implementation Methodology of Business Process Re-engineering by The Kishkinda Trust.

Step 1: Identify the Process: The processes are identified within The Kishkinda Trust that needs improvements. This involves mapping out the current workflows and understanding how tasks are performed.

Step 2: Analysis and Evaluation: After processes are identified, they are analyzed to identify the inefficiencies, bottlenecks, and areas for improvement. This step involves collecting data, analyzing performance metrics and understand the root cause of the problems.

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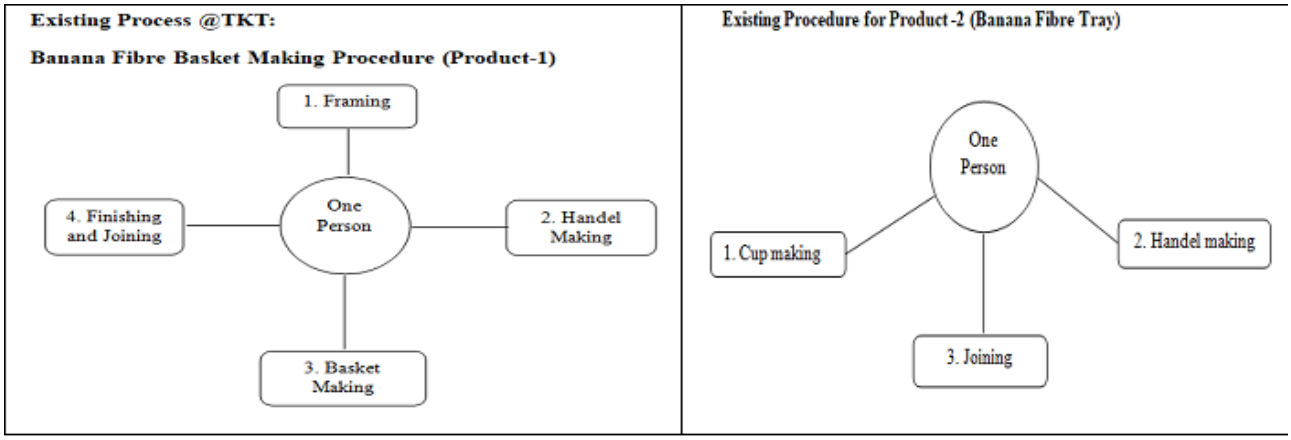
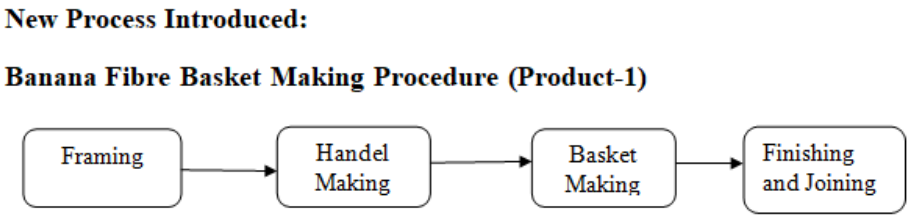
Figure1: The Existing Process of the Banana Fiber Basket (Product-1) and Banana Fiber Tray (Product-2)



Source: Observed data process from the site

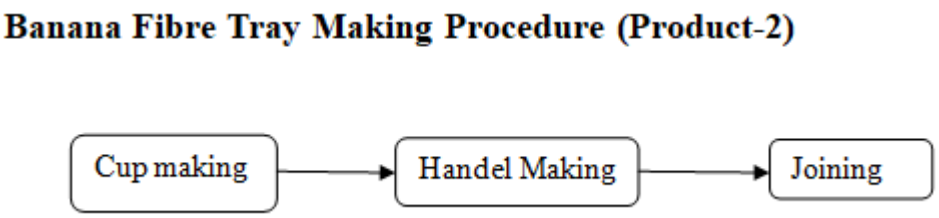
Step 3: Redesigning Process: Based on the analysis, processes are redesigned to eliminate inefficiencies and improve performance. This involves simplifying workflows or reorganizing roles and responsibilities.

Figure 2: New Process Introduced for the Banana Fiber Basket (Product-1)



As shown in Figure -2, the new process was introduced for basket Making (Product-1). In this process Framing, Handle Making, Basket Making, and Finishing and Joining are made as individual activities. All the individual tasks are assigned to individual worker.

Figure 3: New Process Introduced for the Fiber Tray (Product-2)



As shown in Figure -3, the new process was introduced for Tray Making (Product-1). In this process Cup Making, Handel Making, and Joining are made as individual activities. All the individual tasks are assigned to individual worker.

Step 4: Implementation: The redesigned processes were implemented across the organization. Employees received training on new process (1-Week) and workflows, and organizational changes were made to align with the new processes and the implemented procedures are observed for 4 weeks of time. (2weeks with old manufacturing process and 2 weeks with new manufacturing process for two products)

Step 5: Monitoring and Continues Improvement: After implementation, processes are continuously monitored to ensure they are achieving the desired results. Feedback is collected and adjustments are made as needed to further improve the performance.

The Kishkinda Trust was able to reduce its overall production costs by enhancing 40% of the Productivity in Banana Fiber Basket (Product-1). The detailed table of activities are shown in Exhibit 1.

Similarly, the organization was able to reduce its production cost by enhancing the productivity in tray making (Product-2). The detail table of activities are shown in Exhibit 2.

Issues and Challenges in Implementation of Business Process Re-engineering in The Kishkinda Trust.

- **Resistance to Change:** Employees in The Kishkinda Trust are resistant to change due to a lack of understanding of Business Process Re-engineering benefits or fear of job loss. The traditional nature of cottage industries can make it challenging to shift to new ways of working.
- **Lack of Skills:** Cottage industries typically rely on traditional skills and lack the technical expertise needed to implement and sustain new processes. This gap has hindered the effective execution of Business Process Re-engineering initiatives initially.
- **Infrastructure Deficiencies**: Poor infrastructure, particularly in rural areas where many cottage industries are located, can impede the implementation of new technologies and processes essential for Business Process Re-engineering.
- **Limited Resources**: Cottage industries often operate with limited financial and technological resources, making it expensive to invest in the extensive changes required for Business Process Re-engineering, such as new technology, training, and new process redesign.

The Outcomes of Business Process Re-engineering in The Kishkinda Trust.

Mrs. Shama as a Trustee intended to implement Business Process Re-engineering for all the group of workers in the trust. She has hired the external expert's services to implement the Business Process Re-Engineering in the trust. The Kishkinda Trust achieved the following outcomes by implementing the Business Process Re-engineering.

- **Cost Reduction:** The implementation of Business Process Re-engineering resulted in significant cost reduction by streamlining the production process of Banana Fiber Products. The Kishkinda Trust was able to reduce the overall production costs.
- **Improved Time to Market:** The lead times for new products to market were significantly reduced. This enables The Kishkinda Trust to respond more quickly to the changing market demands in same product category with minor customizations and gain the competitive advantage.

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- **Improved Productivity:** Due to the optimization of the production process the productivity of the workers has improved 30 percent.
- **Enhanced Quality:** The quality of the products improved due to the implementation of Business Process Re-engineering. By optimizing production process and implementing quality control measures, the organization was able to reduce the defects and customer complaints as the individual workers gained expertise in the manufacturing process.

Conclusion

Mrs. Shama was keen that The Kishkinda Trust should explore the ways of increasing the productivity, operational efficiency, and customer satisfaction by the ways of implementing Business Process Re-engineering. The strategy of Trustee Mrs. Shama worked successfully by implementing Business Process Re-engineering in the trust. The Kishkinda Trust scaled up its business nearly 18-30 percent. The performance of the employees was optimized. Mrs. Shama was able to address the resistance to change in the trust effectively. It was win-win situation for all stake holders. It also achieved the high degree of customer satisfaction. It increases the productivity by around 30 percent. It was phenomenal for the trust.

Exabit 1: The comparison of old and new process of Basket Making (Product-1) with the detail observation for two weeks.

Old Process				**New Process**			
Work and Worker (1-5)	Per Hour	Per Day	2 weeks Total	Per Hour	Per Day	2 Weeks Total	Difference
Banana Fiber Basket	10 cm of framing or 10cm of Basket or sorting of Water hyacinth	30 cm of Basket making or Handle making	2.5 Basket	20 cm of framing or 20cm of Basket	Framing of 2 or 15 cm of basket making	4 Basket	1.5
Banana Fiber Basket	10 cm of framing or 10cm of Basket or sorting of Water hyacinth	30 cm of Basket making or Handle making	2.5 Basket	20 cm of framing or 20cm of Basket	Framing of 2 or 15 cm of basket making	4 Basket	1.5
Banana Fiber Basket	10 cm of framing or 10cm of Basket or sorting of Water hyacinth	30 cm of Basket making or Handle making	2.5 Basket	sorting of Water hyacinth or 20 cm of basket making	1 Handel Making or 30 cm of Basket Making	4 Basket	1.5
Banana Fiber Basket	10 cm of framing or 10cm of Basket or sorting of Water hyacinth	30 cm of Basket making or Handle making	2.5 Basket	sorting of Water hyacinth or 20 cm of basket making	1 Handel Making or 30 cm of Basket Making	4 Basket	1.5
Banana Fiber Basket	10 cm of framing or 10cm of Basket or sorting of Water hyacinth	30 cm of Basket making or Handle making	2.5 Basket	Sorting of Water hyacinth or finishing of 2 Basket	1 Handel Making or Finishing of 6 Baskets	4 Basket	1.5
			Total: Approx 12 Baskets		**Total: 20**		**Total:7.5 (40% More Productivity were Observed)**

Exabit 2: The comparison of old and new process of Tray Making (Product-2) with the detail observation for two weeks.

Banana Fiber Tray (Product-2)							
Existing Process				**New Process**			
Work & Worker (1-5)	Per Hour	Per Day	2 weeks Total	Per Hour	Per Day	2 Weeks Total	Difference
Tray	Base of Cup / Handle base	2 cups or 1 cup & Handel	3 trays	Base of the cup	3 cups	4 trays	1
Tray	Base of Cup / Handle base	2 cups or 1 cup & Handel	3 trays	Base of Cup / Handle base	2 cups or 2 cup & Handel	4 trays	1
Tray	Base of Cup / Handle base	2 cups or 1 cup & Handel	3 trays	Base of the cup	3 cups	4 trays	1
Tray	Base of Cup / Handle base	2 cups or 1 cup & Handel	3 trays	Base of Cup / Handle base	2 cups or 2 cup & Handel	4 trays	1
Tray	Base of Cup / Handle base	2 cups or 1 cup & Handel	3 trays	Base of the cup	3 cups	4 trays	1
Tray	Base of Cup / Handle base	2 cups or 1 cup & Handel	3 trays	Base of Cup / Handle base	2 cups or 2 cup & Handel	4 trays	1
			Total:18			**Total:24**	**Total:6 (25% of the Productivity)**

Exabit 3: Product Catalog of The Kishkinda Trust.

Case Questions

1. What is Business Process Re-engineering? How it can transform the cottage industry in India.

2.How did Mrs. Shama transformed The Kishkinda Trust by implementing the Business Process Re-engineering.

3.If You were in the place of Mrs. Shama, What Strategy you would have chosen for achieving high level performance, customer satisfaction and reduce the cost of operation.

Teaching Notes

Synopsis of the Case: Cottage industry is playing an important role in Micro-Entrepreneurship of rural India. Mrs. Shama Trustee, The Kishkinda Trust, Anegundi Hampi Karnataka wanted to implement the Business Process Re-Engineering to optimize the production process of Banana Fiber products in the trust. Initially Mrs. Shama got resistance from Employee's and Administration for implementing the Business Process Re-engineering. But when she convinced all the stake holders about new process and its advantages everyone has accepted with open mind. The stake holders witnessed the phenomenal results after implementation of Business Process Re-engineering in the production process. The Productivity has boosted nearly 30 percent, Cost of Production has reduced around 13 percent, Enhanced Operational Efficiency, Employee Performance and Stake Holders Satisfaction.

A. **Target Learning Group**: This Case study can be thought in MBA/ Business Schools offering Post Graduate Diploma in Management through their curriculum. It may be used as a Training Material for Cottage Industry stake holders such as NGO's, Government/Non-Government Institutions, Training and Placement Agencies. The case is equally useful for the startups who are working in this sector.

B. **Teaching Objectives and Key Issues:**
   The following are the teaching objectives of the case:
   - To Understand the concept of Business Process Re-engineering.
   - To Evaluate Multiple Strategies while Implementing Business Process Re-engineering.
   - To Study the Key Areas of Performances in Cottage Industry.
   - To Study the Concept of Employee Performance and Stake Holder Satisfaction.

C. **The Teaching Strategy:** The learner must be aware of the concept such as Business Process Re-engineering, Business Development, Opportunities in Cottage Industry, Operational Efficiencies and Improvement Strategies. The case should be given to the students at least 1-2 days advance. Advise the learner to do prior reading and analysis of the case before coming to the class. The case study may be distributed to the small group of 3-4 students. Every group will present the case analysis with proper written points. Each group may interpret and give suggestions towards issues and challenges involved in the case.

D. **Individual Assessments:** The learners may apply the various situations and frameworks like Cottage Industry in India, SWOT Analysis, Business Process Re-engineering Implementation Strategy, Employee Training and Satisfaction. The learner should be able to evaluate multiple options and understand the pros and cons of the decisions which he has chosen to apply.

E. **Group Assessments:** The learner may be asked to adopt the role play of various key positions such as Marketing Head, Finance Head and Operations Head of TKT. The Power Point Presentation can be made by Marketing Head, Finance Head and Operations Head to discuss the strategies to address the problems given in the case study.

F. **Teaching Plan:**

- Introduction of the case study and profile of TKT. [10 Min]
- Business Process Re-engineering, Human Resource Training, Financial Aspects and Interpretation. [30 Min]
- Issues and Challenges involved in the Case Study and its Mitigation Strategies. [10 Min]
- Summary. [10 Min]

Questions for Discussions:

1. **Give SWOT analysis of Cottage Industry in India?**

SWOT of Cottage Industry in India: A SWOT analysis of the cottage industry in India provides a comprehensive understanding of its status and future potential.

Strengths

- **Cultural Heritage and Diversity**: Rich tradition and variety in crafts and products. Unique and authentic items reflecting regional diversity.
- **Employment Generation**: Significant source of employment, especially in rural areas. Low capital investment needed, making it accessible for many.
- **Skill Development**: Preservation and transmission of traditional skills. Continuous learning and adaptation to new techniques.
- **Environmental Sustainability**: Use of local, natural, and eco-friendly materials. Low carbon footprint due to small-scale production processes.
- **Flexibility and Customization**: Ability to cater to niche markets with customized products. Flexibility to quickly adapt to market demands and trends.

Weaknesses

- **Lack of Modernization**: Limited access to modern technology and machinery. Slow adoption of contemporary business practices.
- **Inadequate Marketing and Branding**: Poor marketing strategies and lack of strong branding. Difficulty in reaching broader markets, especially international ones.
- **Financial Constraints**: Limited access to finance and credit facilities. Dependence on informal credit sources with high-interest rates.
- **Supply Chain Issues**: Inefficient supply chain management leading to delays and increased costs. Inconsistent quality and quantity of raw materials.
- **Training and Education**: Lack of formal training programs for skill enhancement. Inadequate education on business management and market trends.

Opportunities

- **Government Support and Initiatives**: Various government schemes and subsidies aimed at promoting cottage industries. Programs for skill development and financial assistance.
- **Growing Demand for Handmade Products**: Increasing consumer preference for unique, handmade, and sustainable products. Growing markets both domestically and internationally for artisanal goods.
- **E-commerce and Digital Platforms**: Opportunities to reach global markets through online platforms. Digital marketing and social media to enhance visibility and sales.
- **Tourism:** Boost from tourism, with tourists seeking authentic local products. Potential for developing craft villages and workshops as tourist attractions.
- **Collaborations and Partnerships**: Opportunities for collaboration with designers, corporates, and international brands. Partnerships with NGOs and development organizations for training and market access.

Threats

- **Competition from Mass-Produced Goods**: Intense competition from cheaper, mass-produced alternatives. Difficulty in competing on price and scale.
- **Changing Consumer Preferences**: Risk of traditional crafts losing appeal to modern tastes. Trends shifting towards minimalism and digital goods.
- **Economic Instability**: Vulnerability to economic downturns affecting disposable income and spending. Impact of inflation and rising costs on production and pricing.
- **Supply Chain Disruptions**: Dependence on local raw materials which may face shortages. Natural disasters, political unrest, or pandemics disrupting supply chains.
- **Skill Erosion**: Younger generations moving away from traditional crafts for more lucrative careers. Risk of losing traditional knowledge and skills over time.

2. **Does Business Process Re-engineering help in Cottage Industry?**

Yes. Business Process Re-engineering helps in cottage industry by fundamentally Re-thinking and Re-designing the production process in the grass root level. It will help to achieve the critical performance measures such as Cost, Quality, Productivity and Speed. It will help to identify the Inefficiencies and Streamline the Operations, Eliminate Non-value-added activities and enhance overall Productivity in the Cottage Industry.

3. **What are the Challenges faced by the organization while implementing Business Process Re-engineering.**

Implementing Business Process Re-engineering in cottage industries presents unique challenges due to their distinctive characteristics and operational scale. Here are some of the primary challenges:

- **Financial Constraints**: Cottage industries often operate with tight budgets, making it difficult to invest in training, and external consultancy required for Business Process Re-engineering.
- **Human Resources**: These industries will have a limited workforce, which can hinder the re-engineering process that often demands additional manpower for planning, implementation, and transition.

- **Cultural Resistance**: Employees and management in cottage industries might be resistant to change due to long-established ways of working and a preference for traditional methods.
- **Fear of Job Loss**: There may be a fear among workers that Business Process Re-engineering will lead to job redundancies due to process optimization.
- **Skill Gaps**: There may be a lack of in-house expertise to carry out Business Process Re-engineering. Employees in cottage industries might not have the necessary skills or knowledge to redesign processes effectively.
- **External Consultants**: Hiring external consultants with Business Process Re-engineering expertise can be costly and may not always be feasible for small-scale operations.
- **Data Collection**: Many cottage industries may lack systematic data collection methods, which are crucial for analysing current processes and identifying areas for improvement.
- **Data Analysis**: Even if data is available, the ability to analyse and use it effectively for process re-engineering can be limited.

4. **Which Strategy should be adopted for reducing the Employee Resistance to Change in Business Process Re-engineering.**

The following strategies may be considered while implementing the Business Process Re-engineering.

1. **Employee Involvement:** Involve employees in planning and decision-making process. They are more likely to support and commit to the changes when employees contribute to the re-engineering process.
2. **Education and Training:** Provide comprehensive training to help employees develop the skills needed for the new processes. This will reduce anxiety and increase confidence in handling new tasks. Conduct sessions to educate employees about the benefits of Business Process Re-engineering and how it will positively impact their work and the organization.
3. **Pilot Programs and Phased Implementation:** Implement changes on a small scale first to demonstrate success and address issues before a full-scale rollout. Gradually implement changes to allow employees to adjust over time, reducing the sense of being overwhelmed.
4. **Incentives and Reward:** Recognize and reward employees who contribute positively to the change process. This can motivate others to follow suit. Link successful adoption of new processes to performance incentives, highlighting the personal benefits of embracing change.

Experience in Using the Case:

- Learner will understand the Implementation Process of Business Process Re-engineering, Change-Management for Dynamic Market Conditions.
- Learner will also understand how to deal with Human Resource while Implementing the Change Management.
- Learner will understand Market Expansion, Market Leadership Practices and Enhancing Business Performances & Value Creation for the Firm.

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