

Appendix 3: Process Innovation techniques

Table 1: 7Rs of Process Innovation

Heuristic (the "R")/Question	Apply When...	
1	Rethink	Always
2	Reconfigure	
	How can this activity be eliminated?	<ul style="list-style-type: none"> • they are low-value or waste activities • processes have a low value density • value received from activity is minimal (e.g., approving small amounts)
	How can common activities be consolidated?	<ul style="list-style-type: none"> • common activities are performed in multiple locations • common activities are performed inconsistently • there are economies of scale (e.g., shared services)
	How can reconciliation be reduced by putting quality at the source?	<ul style="list-style-type: none"> • a lot of time is spent reconciling paperwork and correcting errors • there is little accountability for errors
	How can information sharing with partners and customers improve the process?	<ul style="list-style-type: none"> • demand is uncertain or unpredictable • stock-outs are frequent • inventories are excessive
	How can intermediaries and non-value added work be eliminated?	<ul style="list-style-type: none"> • intermediaries add no value, and just relay goods, services
	How can best practices from other industries be borrowed and improved upon?	<ul style="list-style-type: none"> • you are looking for new ideas (i.e., always)
3	Resequence	
	How can predicting increase efficiency?	<ul style="list-style-type: none"> • accurate information on customer demand is available early • forecasting models have proved reliable • time compression is more critical than accuracy or inventory costs • product or service variations are relatively low
	How can postponement increase flexibility?	<ul style="list-style-type: none"> • customers want customized products or services • inventory carrying costs are too high • forecasting models have proved inaccurate
	How can parallelism reduce time?	<ul style="list-style-type: none"> • there are limited timing dependencies between activities • time compression is critical • rework is necessary due to late error detection
	How can the number of interconnections and dependencies be minimized?	<ul style="list-style-type: none"> • where there are bottlenecks, large queues, or frequent handoffs
4	Relocate	
	How can the activity be moved closer to the customer or partner	<ul style="list-style-type: none"> • distance from the customer or supplier has introduced delay, miscommunication, or error

	to improve effectiveness?	<ul style="list-style-type: none"> customer convenience is critical customer volume is large enough and transportation lead times or costs are high
	How can the activity be moved closer to related activities to improve communication?	<ul style="list-style-type: none"> activities require a high level of teamwork or collaboration rework and errors are hard to trace back to the source
	How can we decrease cycle time by reducing travel time and distance?	<ul style="list-style-type: none"> travel is a significant proportion of the process goods are shipped multiple times (from plant to warehouse to customer)
	How can geographically virtual organizations be created?	<ul style="list-style-type: none"> resources are geographically dispersed, but don't need to be physically nearby to produce an outcome groupware technologies can be leveraged effectively costs of doing business may be lower in a different geographical area (e.g., moving call centers to remote areas)
5	Reduce	
	How can the frequency of the activity be reduced or increased?	<ul style="list-style-type: none"> an activity is non-value added but necessary there is low variation in the process or product there is high variability and low setup costs and times (e.g., small lot sizes)
	How would more information enable greater effectiveness?	<ul style="list-style-type: none"> higher accuracy is needed greater segmentation would yield greater marketing effectiveness
	How would less information or fewer controls simplify and improve efficiency?	<ul style="list-style-type: none"> a high proportion of costs goes to data collection or controls the value received from information or controls is minimal absolute accuracy is not necessary
	How can critical resources be used more effectively?	<ul style="list-style-type: none"> utilization of key resources is low critical resources are performing non-value-added or waste work
6	Reassign	
	How can existing activities and decisions be moved to a different organization?	<ul style="list-style-type: none"> another organization has skills or resources you lack you want different branding it is too difficult to change previous operating model or culture
	How can the activity be outsourced?	<ul style="list-style-type: none"> you don't perform the activity at world-class levels it is neither a core competency, nor is it critical another organization performs this activity at world-class levels you have limited resources and want to focus on core

		competencies
	How can the customer perform this activity?	<ul style="list-style-type: none"> • customers want to be empowered to help themselves (self-serve) • certain customer segments are not profitable • costs need to be reduced
	How can the organization perform an activity that the customer is already performing?	<ul style="list-style-type: none"> • the customer wants more value and/or convenience • the organization wants to get closer to the customer
	How can cross-training integrate and compress tasks?	<ul style="list-style-type: none"> • multiple tasks are needed to produce an outcome • processes are not complex enough to justify a specialist • only 20% of cases or less require special expertise
	How can suppliers/partners perform this activity?	<ul style="list-style-type: none"> • the supplier or partner has skills, assets or economies of scale that you lack • the activity is not a core competency • the activity is in an area of the business that may change rapidly in the future, and you need added flexibility
7	Retool	
	How can technology transform the process?	<ul style="list-style-type: none"> • You want to make time, location, or performer irrelevant
	How can the activity be automated?	<ul style="list-style-type: none"> • the current process is paper-based or manual and cannot be eliminated • the activity suffer from errors, inconsistency, or reconciliation problems • greater transaction volumes are needed
	How can assets or competencies be leveraged to create competitive advantage?	<ul style="list-style-type: none"> • you have world-class competencies • growth potential in the existing business looks bleak
	How can up-skilling, down-skilling or multi-skilling improve the process?	<ul style="list-style-type: none"> • customer satisfaction is low (up-skilling) • multiple specialists are needed to produce an outcome (multi-skilling) • technology can create knowledge workers (down-skilling)