

1. The Impact Of Automation On Production

1	Output	Increased output Faster to market Reduced production times
2	Quality	Consistency/zero defects Right first time
3	Workforce	Smaller workforce Employee re-training Changes in job profiles Improved working conditions
4	Costs	Initial capital outlay Savings in workforce costs Reduced overall cost of production

3. Global manufacturing

1	Global supply chain	The worldwide system that a business uses to produce products or services.
2	Business benefits	<input type="checkbox"/> Lower labour costs. <input type="checkbox"/> Able to reach new markets to sell products. <input type="checkbox"/> React to changing demand. <input type="checkbox"/> Partnerships to improve efficiencies / business / manufacture.
3	Standardisation of processes and procedures	<input type="checkbox"/> The process of implementing and developing technical with the agreement of firms, users, organizations and governments. <input type="checkbox"/> A level of consistency in the product the same high quality product.

2. Digital Communications

1	Uses In Research And Development	Internet Research	Find out about the competition, areas of inspiration, customer opinions, existing products.
		Computer Aided Design (CAD)	<input type="checkbox"/> Increases speed of designing. <input type="checkbox"/> Higher quality designs. <input type="checkbox"/> Reuse and easily change / modify designs <input type="checkbox"/> Designing physical objects in a virtual workspace
		Electronic Communication Of Drawings	<input type="checkbox"/> Fast sharing of design ideas. <input type="checkbox"/> Low cost to send an email. <input type="checkbox"/> Convenience <input type="checkbox"/> Quick feedback from designs <input type="checkbox"/> Easy to collaborate on designs
		Video Conferencing	<input type="checkbox"/> Reduced / No travel time <input type="checkbox"/> Reduced costs compared to travel. <input type="checkbox"/> Everybody attends. <input type="checkbox"/> Structured meetings with improved communications. <input type="checkbox"/> Increased productivity.
2	Material Supply And Control	Just-in-time (JIT)	<input type="checkbox"/> A system based on receiving a customer order, the manufacture of the product on the production line and finally distribution. <input type="checkbox"/> Just in time relies on a good, efficient working relationship between the supplier / suppliers, the manufacturer and the distributor.
		Inventory Reduction	<input type="checkbox"/> Less finance tied up in materials or parts if production line is efficient. Reduced storage required.
		Automatic Ordering	A system automatically reorders items in a warehouse when a minimum quantity is reached, it reorders a sufficient number of parts to replenish them and bring them back to a safe working levels.
		Stock Management	<input type="checkbox"/> The practice of ordering, storing, tracking, and controlling inventory.
		Electronic Transfer Of Data	<input type="checkbox"/> (EDI) is the electronic exchange of business information using a standardised format; a process which allows one company to send information to another company electronically rather than with paper.