The areas of potential conflict between these departments, to finalizing new prod...

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IntroductionAll organizations need new products in order to continue to grow, as most of the products you can find in any market today are in their maturity stage and have very little possibility of growth. Most departments within an organization will be involved, in one way or another, in the development of a new product. We will look at the marketing, design and manufacturing departments, the conflicts they might find themselves in while developing a new product and ways to resolve these conflicts. 2. Possible areas of conflict between the marketing, design and manufacturing departmentsEach department must understand the needs of the other departments involved in the new product development and respond accordingly when providing information or ideas.

The marketing department will always try to come up with a product that responds to customers needs that could possibly bring more market share and place the organisation a step ahead of the competition. This could translate into a new exciting feature, a revolutionary package or it can take the form of ' product championship'of a strong marketing manager or even a ' skimming strategy' that is just too ambitious. This could create a conflict between the marketing department and the manufacturing department where unit costs are concerned. The manufacturing capabilities might not be enough, and the use of different or substandard materials might be called for in order to manufacture the new product.

In such a case, the new product might not be what the marketing department had in mind when thinking of promotional campaigns and

advertising campaigns for the market introduction of the new product and could encounter major problems when testing the product as the customers will notice the difference between the promised and delivered quality. Also, trying to meet the marketing criteria, the design department may present a design that cannot be manufactured. The manufacturing department might try and readjust the design so that it responds to the production materials and tools they have. Or it can delay the due date due to the fact that the manufacturing department will have to go to different suppliers in search for the appropriate materials according to the marketing plan for the new product. These kinds of situation can put all three departments in conflict. Human resources can find itself in conflict with any of the above mentioned departments.

Since a new product is being developed, extra staff might be required and training might need to be provided; the product team might need outside expert advice that will have to be contracted and paid for their input; decisions might be made to replace certain key players from the product team with more experienced ones in which case recruitment operations are required; new machinery might have to be acquisitioned and require specialised staff to operate it. The Financial Department could find itself pressured into creating a new budget to accommodate the materials, machinery, new staff, training programs or newly acquired distribution channels required by the different departments involved in the new product development process. 3. Possible solutionsThe logical solution is inter-departmental communication.

This can be achieved by putting together a product team that can have members from all the departments involved in the new product development process. The new product's rate of success will increase if the marketing, design and manufacturing departments will share information on customer needs and segments, technology and manufacturing capabilities, competitor strategies, business strategies, and pricing (Deborah J. Dougherty 1987) and the rate of inter-departmental conflict will decrease once the manufacturing and design departments understand customer needs and the marketing department is aware of the technological capabilities and constraints. William E. Souder 1987 has studied 289 projects over a ten year period and concluded that inter-departmental communication (' harmony' in his words) is a strong contributor to the success of a new product development.

See figure 1.; Deborah J. Dougherty 1987, conducted a research into 16 projects in five organisations and found that the projects that were successful were the ones that benefited from communication at high levels within the product team, on nine important topics: product use, politics, needs, delivery, segments, competition, marketing, prices and physical. Three of the methods used by organisations to improve the communication, exchange of information and overall harmony between the marketing, design and manufacturing departments are phase-review processes, stage-gate processes and Quality Function Deployment.

The Phase Review Process is a widely employed product development process that involves the completion of a set of tasks by a first department which then passes the information they gathered to the next department which, after completing their set of tasks passes everything to the next

department, thus ensuring a smooth flow of information and constant inter-departmental communication. Some of the phases that each department will have to have an input in could be as follows:- Investigation/ research and conceptualization of new product- Market, product and technical feasibility- Development and testing- Release of productThe Stage-Gate Process, according to the official Stage-Gate website, ' divides the effort (of the new product development team) into distinct stages separated by management decision gates. Cross-functional teams must successfully complete a prescribed set of related cross-functional tasks into each stage prior to obtaining management approval to proceed to the next stage of product development'. Each organisation has its own way of portraying the process, but a general outlook would be as follows:- Scoping- Build business case- Development- Testing and validation- LaunchEach stage is followed by a gate, which is when the progress is evaluated and decisions can be made of whether there is still work to be done or the team can move forward. This process was developed by Dr. Robert G.

Cooper in the 1980's. Quality Function Deployment, according to the definition offered by TQM Consulting Group AG (TQMCG), ' is a flexible and comprehensive group decision making technique. QFD transforms customer needs (the voice of the customer [VOC]) into engineering characteristics (and appropriate test methods) of a product or service, prioritising each product/service characteristic while simultaneously setting development targets for product or service development.'In short, it is a management technique that enhances inter-departmental communication while developing a new product. QFD was initially a concept developed by Dr.

Yoji Akao in Japan in 1966. He defined it as a ' method to transform user demands into design quality, to deploy the functions forming quality, and to deploy methods for achieving the design quality into subsystems and component parts, and ultimately to specific elements of the manufacturing process.'QFD uses four houses. First one links customer needs to design attributes, the second one links these design attributes to actions the organisations can take, the third one links actions to implementation decisions like the manufacturing of the products and the final fourth house links implementation to production planning. QFD's most famous tool would be the House Of Quality, which basically translates the customers' needs into technical specifications, and creates a common language for the marketing, design and manufacturing departments, which will lead to the success of the new product development process and ultimately customer satisfaction. The House Of Quality was first used by Mitsubishi's Kobe shipyard in 1972 and it is now used by Ford, General Motors, Toyota, Chrysler, Xerox, Hewlet Packard, Procter ; Gamble, Colgate, Gillette, Kodak, Polaroid in the US and other organizations in Japan.

4. ConclusionNowadays is hard enough to manage to penetrate whichever market due to competition and barriers put up for new entrants, whether they are new companies or well established ones that venture a new product. Thus it is twice as important when starting a new product development process to ensure that the team product that's been put together by the organisation has the most experienced and recommended managers and team and that the inter-departmental communication and harmony is kept going throughout the entire process, starting with

brainstorming for the ideas for the new product and finishing with the

successful launch that brings in profit and rewards the team and the

organisation with customer satisfaction and everything that comes with it.