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| pearson uncertainty map adv - means & ends - make decision  exploratory research - unfamiliar technology - university laboratory  development engineering - uncertain means - different approaches  application engineering - uncertain ends - technology & material  combining market opportunities - most certain - new & improve  growth orientation - long term growth - short-term profit  vigilance - ability aware - threats & opportunities  risk acceptance - take risk - balanced portfolio  cross-functional structure - mutual respect - willingness work  formalization - decrease innovation - planning effeciencies  complexity - specialist diversity - manage interest  centralization - authority people - flatter structure  organization size - scale - significant different  reputation - takes year - global exposure  creative people - creative organization - scientific excellence  encourages creativity - tolerate mistake -reward ideas  innovative product - improve existing - futher success  willingness accept - refuse change - ensure completion    NPD adv - company sale - resource allocation  idea generation - source - swot  idea screening - eliminate bad - technical & financial  concept development & testing - prototype - purchase intention  business analysis - selling price - sale volume  product development - main test - consumer test  market testing - standard marketing - control marketing  comercialization - mass quantity - advertise  external technology adv - internal slow - domain expert  external technology how - expert & patent - reverse engineering  strategic alliance adv - competition - product complexity  strategic alliance dis - lost knowledge - lost autonomy  formal - contractual agreement - terms condition  informal - no binding - mutual understanding  joint venture - form new - revised | pearson uncertainty map framework for analyzing and understanding uncertainty in the innovation process. provides managers with knowledge to make a decision and transform ideas into innovation  exploratory or Blue Sky Research no clear definition of the target or the means experimenting with unfamiliar technologies, and unidentified markets, products wide range of commercial opportunities  different technologies or approaches to reach target  require special project management skills here to ensure either project delivery within budget,  discover new technology / material can be most effectively used  new and improved product emerged from this effort  eg kevlar material for bulletproof  innovative activity most certain at combining market opportunities stage  activity of creating new product or improving existing product  eg Nokia with minimal new technology but improve appearance as new product  commitment to long term growth rather than short term profit  ability of organization to aware its threats and opportunites  willingness to include risky opportunities in a balanced portfolio  mutual respect among individual and a willingness to work together across function  formalization of procedures will result in a decrease in innovative activity  organisational planning and routine necessary for achieving efficiencies  complexity of organization  number of professional group or diveristy of specialist  manage & distribute the group interest  decision making activity and authority people  few level of hierarchy lead to more responsive decision making closer to action  meaningful dimension such as economic and organizational resources  number of employees and scale of operation  decide whether small 20 employee or large 200 employee is more effective  reputation takes year to develop  strongly linked to overall performance  sucesss product ahieve wide exposure  creative people attracted by those companies that themselves are viewed as creative same like undergraduated apply for position of employment with company viewed as sucessful  top scientist will seek employment from those companies which have a reputation for innovation and scientific excellence  build an environment that tolerate error and mistake  sucessful new ideas need to be rewarded  genuine improvement of existing product  success in current market place that leads to further success  inability to implement changes even after promise and reward people  once new product has been accepted it need to carried through to completion  new product bring one third of the revenue, 100% in some dynamic industry  roi payoff very quickly of succesful new product  structued approach for deelop new product and good resource allocation  internal R&D, top management, competitor, supplier , well known patent  study the organization SWOT to find out what product is suitable  choose a good idea and drop the bad one  ask question based on technical & financial capability  eg what benefit will the product provide  prototype to see the form or what it look like  carry out testing survery to find out purchase intention of customer, make adjustment if necessary  estimate selling price and based on competitor and customer feedback  estimate sale volume using Fourt-Woodlock equation  functional, reliability, safety  giving out tester, debranded product comparison  outsource research firm  produce in mass quanitty, selling in big quanity  advertise & promote new product  cannot rely on internal R&D  most of the time internal not the domain expert  hire expert or purchase license from intellectual property  purchase existing manufacture company that include designer, scientist, equipmenrt  eg. Sony buy Minolta for producing mobile phone camera  need to get new technology very fast at world wide competition market  increase complexity of product, multiple technology on a single product  lost knowledge due to sharing  cannot make own decision, bigger share holder make important decision  revised to continue after few year  eg. Sony Ericsson |