Innovative Operations Strategies

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[A] Market Size Changed From Local To Global.
[C] ‘Very High Share Of Market Or Almost Negligible Share Of Market’ Became The ‘New Mantra’ For All Competing Firms.


Key Words: Global Supply Chain, Transformation, Challenges, Stake Holders [Sharing Risk & Gains Of System] Strategy, Innovation, Technology Development.

I. Introduction:

Business All Over The World Is Undergoing Rapid Transformation. The Rate Of Transformation Varied Based On Following Factors.


Market Characteristics Of ‘Pre Globalization Era’:

[C] Quality Of Product Remained Good But Not Excellent.
[D] Very High Demand For The Product Compared To Very Low Supply Of The Product To Match The Demand, And There By Huge Backlog Of Pending Demand Had Been The Key Characteristic Feature Of The Market.
[E] Customers Were Ready To Wait For The Product. Production Was Labor Centric.
Market Characteristics Of ‘Post Globalization Era’:
[C] Product Design Started Changing To Add New Attractive Features To The Product, And Price Of The Product Is Lowered Simultaneously To Increase Its Volume. Thus Implementation Of Favorable Differentiation Strategy In Order To Capture Higher Share Of Market Was Put In Place By Majority Of MNC.
[F] Stable Local Market Of Pre Globalization Era, Was Replaced By, Unstable, Volatile, Disruptive, Complex, Ambiguous, And At Times Hidden ‘Global Market’

Winds Of Change:
[C] Need For Very High Financial Input For Smooth Running Of Business And Its Subsequent Consolidation, Also Weighed Negatively For The Businesses.

What To Do And How To Do To Avoid Closure Of Business?
The Critical Problems Pertaining To Survival, Lead MNC To Form “Innovative Strategies For Operations” Pertaining To The Business Across The Globe. Strategies Were Designed To Focus On Three Key Areas.
[A] Strategies For Sustainable Manufacturing Unit.
[B] Strategies For Global Operations
[C] Business Strategies.

Innovative Operation Strategies For Sustainable Manufacturing:
[1] Basis For Selection Of Location Of Manufacturing Unit Across The Globe:
[A] Cheap Availability Of Land
[B] Location Heaving Abundance Of High Quality Of Raw Material.
[C] Availability Of Labor Coupled With High Skilled R&D Staff.
[D] Location Heaving Very Good Infrastructure Facilities And Higher Growth Rate Should Be Chosen In Order To Minimize Logistic Cost Of Operations.

[2] Have Group Of Suppliers Within Reasonable Radios From Plant:
Production Process Will Be Based On ‘Lean Manufacturing System’ And ‘Just In Time’ Inventory System To Minimize Blockage Of Cash In Inventory And Manufacturing System.
Vendors Should Supply The Assembly Duly Tested On Production Floor Of The Main Plant In Time, Which In Turn Reduces Money Locked In Inventory To A Minimum, Thereby Generating Very High Advantage In Cash Flow Cycle, Which Will Create Cash Rich Companies.

[3] Aligning With The Market Forces:

[B] Process Based Production V/S Mass Production, Based On The Strength Of The Brand:
[1] Standardized Product:
If It Is Possible To Standardize The Product, And The Product Has Very High Market Share Like ‘Coca- Cola’, And The Product Design Needs Very Minor Improvements, Then In Such Cases Go For The Mass Production With Product Based Layout Of The Plant Using Specific Purpose Programmable Machines Arranged In The Technical Sequence To Increase Volume Of Production Per Unit Time.
It Reduces The Cost Of Production Per Unit To The Lowest, Which In Turn Achieve Highest Profit Per Unit Of Production.
Volume Of Production Should Depend On The ‘Estimated Annual Forecast Of Demand’ For The Product.
[II] Variation In Product Specifications Based On Market Demands:
If It Is Not Possible To Standardize The Product, And If Market Demand Depends On Sectorial Demands, Calling For Variety In The Product Design, Then It Calls For’ Process Based Lay Out’ Of The Manufacturing Unit, Where In Programmable General Purpose Machines And Process Units Should Be Installed. Depending Upon The Manufacturing Process Required, Product Should Be Routed Through The Processes ‘Production Volume And Product Design Should Be Based On ‘Actual Orders’ And Not On ‘Forecasted Demand’ Of The Product.
Principles Of ‘Lean Manufacturing And ‘Just In Time Inventory’ Should Be Followed, To Have Minimum Cost Of Inventory Along With The Minimum Wastage In The Production System. Above System Develops Capacity To Supply Variety Of Products, In Varying Volume, Based On Sectorial Market Demands, So As To Maximize Profit Per Unit.

[III] Modular Production:
Industries Like’ Asian Paint’ Have Designed A System Known As ’Modular Production’ Due To Existence Of Higher Variability In Demand & Each Customer Seeking Variety Constitute Low Percentage Of Total Revenue. Thus Strategy Of Last Mile Differentiation Of The Product, Through Modular Production System Was Implemented. Final Product Is A Sum Total Of Three Modules. First Module Is The Pure Lacquer Which Can Be Produced In Mass As It Is Independent Of Variability Introduced By Varying Choices Of Customers And Thereby Can Have Economy Of Scale. Cost Of Production Per Unit For This Module Will Be Lowest. Second Module Is Pigment Which Depends On Specific Order For The Paint Based On Customer Demand. Third Module Is The Exact Mix Of Color Approved By Customer Which Can Be Mixture Of Requisite Pigment With The Lacquer Which Is Mixed Through A Computerized System To Have Accuracy And Consistency Towards Development Of The Final Color Approved By The Customer
This Methodology Of Differentiating The Product Till The Last Lag Of Distribution Of Services Has Substantially Reduced Money Blockage In The Inventory And Made Asian Paint A Cash Rich Company.

[4] Development Of Strong R&D Unit:
It Is Profitable Now To Invest In Innovation Of A New Product Or New Technology For Processes, As MNC Can Recover The Huge Cost Of Technological Innovations, From Markets Due To Increased Size Of Markets, Apart From Substantial Gains That Can Be Accrued Due To Differentiation Of Product Achieved Through Development Of Breakthrough Technology.
Thus Creation Of A Powerful R&D Unit Goes A Long Way In Building Excellence For The Business.

[5] Reliability Based Predictive Maintenance Of Plant And Equipment:
This Goal Is Achieved By Monitoring Condition Of The Running Equipment Through Its ‘Frequency Based Spectrum Analysis’ Which Indicates Condition Of Various Key Parts Of The Machines And It Is Possible To Judge Their Expected Time Of Failure In Order To Carry Out Overhauling Of Equipment As Planned And When It Is In Running Condition There By Saving Huge Cost And Time.

Plant Should Have Technological Superiority In Terms Of Various Processes To Make It A Hub For Manufacturing ‘Outsourced Products’ Of Various MNCS. This Capability Will Automatically Ensure Sustainable Manufacturing For The Plant. It Also Adds In Strengthening Capabilities Of R&D Unit Of Plant.

[7] Focused Manufacturing:
As Per Example Can We Manufacture Item Like ‘Flexitellic Gasket’ – Gaskets Designed For High Pressure High Temperature Applications? Production Of Such Item Calls For Expertise Of High Degree, But Ensures Sustainable Manufacturing.

[8] Theme Based Production:
Manufacturing Battery For Electric Car, Manufacturing Of Solar Panels, Will Always Ensure Sustained Manufacturing Mainly Due To Additional Thrust Of Government For The Cause Of Environment. As Industry Will Be In Growth Phase Long Term Manufacturing Association With Customers Will Be Ensured.

Global Operational Strategies:
In Order To Solve Above Problems Following Technologies Were Invented And Implemented.
[1] Computers And Information Technology Were Developed For Sustaining Global Business And Reducing Operational Cost:
Development Of Computers & Information Technology Made It Possible To Have Quick Efficient And Correct Transmission Of Information Across The Globe. Apart From Facilitating Customers With The Tracking Of The Real Time Position Of The Product Being Delivered To The Customer. Global Operational Cost Was Reduced Substantially.

[2] Development Of ‘SAP’ Software System For Business:
It Ensured That Correct And Profitable Decisions Were Taken In The Correct Sequence With Proper Approvals. Based On Software Program. Decision Makers And Staff Implementing Decisions Were Thus Separated Through Proper Software System, Which In Turn Improved Efficiency And Profitability Of The Business.

[3] Development Of Integrated Global Logistic Supply Chain:
[B] Development Of Better Packaging Material, And Classification Of Product Ensured Safe Handling Of The Product During Transportation Along With Proper Costing Of The Product As Risk Factors Were Taken Into Consideration In Classification Of The Product.
[C] Standardization Of Documentations To Be Carried Along With The Container, Helped In Designing Integrated Global Logistic System Which Can Move Continuously. Thus Manufacturing System And Logistic System For Delivery Of The Manufactured Products To Customers Were Separated, Thereby Making Entire Global Operations Sustainable And Profitable.
[D] Containerization:
Development Of Huge Containers Of 58 Feet Length Reduced Unit Cost Per Kg Per Km. Modal Transportation, Construction Of Ware Houses, And Transportation Along High Ways, Reduced Cost Of Transportation Of Material & Made Response To Customers Quick. It Reduced Insurance Cost And Increased Safety Of The Supply. It Maintained Quality Of Material During Transit, And Thus Revolutionized The Logistic Operation Across The Globe.
[E] Development Of Better Infrastructure Across The Globe As Each Country Started Competing With The Others For Achieving Lower Operational Cost So As To Have Concentration Of Global Business In The Country By Promising Reduction In Loss Of Sale Due To ‘Stock Outs’ For Each Brand.

Formulation Of Business Strategy:
[1] Focus On Value Addition:

[2] Core Critical Differentiation Of The Product:
Every Business Focused On Development Of Core Critical Differentiation Of Their Product [USP] To Drive Sustainable Advantage Over Competitors In The Business To Gain And Sustain Huge Profit.

[3] Formulation Of Success Factors With Interactive Control Of Business:
[B] Unfavorable Gap If Observed Between The Desired And Actual Outcome, Will Call For Attention Of Expert For Taking Remedial Measures Which In Turn Will Nullify The Difference In Favor Of The Desired Results. [C] A Separate Team Will Also Observe Market Conditions To Know Whether The Market Conditions Have Changed And Will It Call For A Formulation Of Entirely New Success Factors For The Business, Rejecting The Old Ones?.
This Is A Very Essential Step As Uncertainty And Volatility Prevailing In The Market Can Change Dynamics Of External Forces Governing Business Totally Calling For Entirely New Success Factors For The Business. This Method Of Control Is Known As ‘Management By Acceptation’ And It Helps In Maximizing Profit Or Minimizing Losses.
[4] Merger And Acquisition Of Business:
Merger Can Generate Synergy Which Is Capable Of Generating Higher Value Jointly Of Combined Entity Compared To Value Obtained Through Addition Of Independent Individual Unit Values Of Merged Entities.


[7] Consumer Focus:

[8] Strategy For Performance Evaluation:
Above Analysis Helps In Formulation Of Strategies For Maximization Of Profit Or Minimization Of Losses Based On Operation Data And Future Trend.

[9] Aggregation Alliances:
Alliances With Other Firms For Aggregation In Given Operational Activity Starting From Production To Delivery Of Items Can Result In Value Gains As Fixed Cost Get Shared By More Number Of Items There By Reducing Overhead Cost Per Unit In Case Of Manufacturing And Logistics Operations. Thus Rivals Cooperate In Reduction Of Cost Of Activities Common To Them

[10] Era Of Innovation And Breakthrough Technological Developments For Earning Super Normal Profits:
Following Strategy Is Adopted By MNC To Convert Volatile Market In Their Favor.
[B] Application Of R&D In Existing Proven Business:
[II] Find Innovative Product Or System And Integrate It With The Old Business, And Achieve Lion’s Share Of Market Of The Old Business In The Process.

Automobile Industry:

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2nd International Conference on 'Innovative Business Practices and Sustainability in VUCA World' Organized by GNVS Institute of Management – Mumbai in April - 2018
Photography Industry:

Millions of potential lovers of photography were interested in taking quality photographs. They avoided their hobby as they were lacking skill of photography. Innovation in the technology ensured that persons interested in photography can instantly have a good photograph, even hard copy at a reasonable cost.

Business increased tremendously as potential need for having photographs of one’s choice erupted as a craze. Very high volume of potential customers converting them to actual customers across the globe covered cost of new technology many times.

New mantra is if you have hobby and wish to spend some reasonable amount of money for it you can enjoy best results through technology provided by MNC, and there is no need to possess requisite skill on the part of customer to enjoy the hobby.

Principle weakness of potential consumers has been utilized and converted into principle strength of MNC through innovative product technology.

Development of innovative processes in medical field:

‘Innovative products and technology’ mainly related to surgery were made affordable due to its huge demand in the medical field. Technology has improved efficiency of surgery enormously, and reduced its cost and time of healing. And made surgery more or less painless there by even eliminating the choice on the part of patient to go the other way round. Huge profit/gains through very high value addition have been achieved by innovative technologies.

Thus medical field – an established field was chosen for research in innovative and breakthrough technology to achieve huge gains for MNCS through high value addition.

II. Conclusions/findings:

MNCS as they passed from stable phase of market for the product to a volatile uncertain, disruptive and complex phase of market, various challenges were faced by them, giving only two options to MNCS, either win back customers by giving them high value gains or quit.

Formulation of ‘innovative strategies’ for creating high value gains to customers was the product of their need to win back lost customers.

[A] Alignment with market forces was the first strategy- That is plan for mass production if vast market for the product has been established, and product design can be standardized. If product design cannot be standardized, go for ‘order based production’ ignoring demand forecast for the product. Thus minimize financial input in production system in order to pass on value gains to customers.

[B] Follow strategy of ‘value addition to MNC’ through merger and acquisitions, acquiring monopoly and oligopoly powers within legal limits, increase value of product through innovations in core critical factors, and reduce cost of noncritical factors through ‘make or buy or outsourcing’ decisions.

[C] Direct ‘technological innovations’ for product and processes towards overcoming ‘principle weakness of potential customers of established industry’ which hold them back from enjoying their hobbies, and there by provide very high value gains to customers as a result of innovations.

*Photography industry- through ‘technological innovations’ principle weakness of potential customers – about the requirement of skill on part of millions of potential customers for obtaining high quality photograph along with the need for instantaneous hard copy, has been addressed resulting in massive inflow of potential customers to photography.

* Automobile industry- overcoming principle weakness pertaining to driving the car in traffic on part of millions of potential customers who are aged, disabled, accident prone, but desirous and capable of owning cars and interested in driving cars if totally assisted through technology in case of ‘self driving cars’. Are awaiting success of the experiment and so is the logistic industry.

*[H]*igh tech surgeries in medical field have provided high value gains to patients.

[D technological innovations in product and processes has helped MNCS in winning back customers, in volatile market there by gaining stability in the business. However pace of innovations is very fast and its effects on business and society as a whole is yet to be evaluated in totality.

References

