

# The impact of globalization on engineering companies



Globalization is one of the prominent features in the current trend of evolution for national economies. Companies and Nations can be offered with huge potential profits through globalization, but it is more complicated to implement because of widely differing expectations, standard of living, cultures and values as well as unexpected global cause-and-effect linkages.

[1]

Financial Globalization: “ Combination of sedentary financial system of a particular country with international organization as well as financial markets”. Financial globalization acts as a safeguard against national shocks, an excellent system for the global allocation of resources in a more efficient way. [2]

Production Globalization: Producers are getting more benefits from different cultures & cheap labors all around the world, due to which world has become the global village. Companies prefer other parts of the world, where products are available at lower cost. Other reason for this is availability of natural resources in the country preferred & facility provided by that country for foreign investments.

This has a wide application addressed as production globalization, which needs higher technological knowledge & countries with highly skilled people.

[3]

Competitive Globalization: In world where global competition is increasingly growing, nation has become more, not less, prominent.

Basis of competition being shifted more & more, the generation & orientation of knowledge, role of nation has flourished. Competitive advantages is generated and approved through a highly confined process.

Diversity in national values, culture, economic structures, institutions & histories are all devoted to competitive success. Companies achieve competitive advantage through acts of innovation with broadest sense, including the new ways & new technologies, this helps in perceiving an entirely new market opportunity. Globalization of Industry & technology always helps in creating new winners & also losers within the national economy for the competition to be more stronger. [4]

Basic step of globalization is that, it is an intensified transference of exchange of things between pre-constituted units, being they are political, economic and cultural. Thus, Globalization signifies a “ process of change which originates at the level of unit in terms of unintended consequences of interaction between units. [5]

“ Understanding of globalization” can be accomplished in terms of range of values across the below mentioned four characteristics. When we see ‘ how far it reaches’, broader geographical effects could be experienced in events and actions that take place. Globalization involves social, political & economic activities being stretched and once it is implemented onto the process, one part of the world has an increasing effect on the situations in the other parts of world.

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Fig: Understanding the concept of globalization. (Google Images)

Speed of global interconnections & processes are uncertain. Results of developments in travel and communication technology have larger velocity. “ Impact of Globalization” cannot be expected only in single type, but there are four different types of impact or outcome.

Decisional Impact: What are the effects of globalizing processes? How do individuals, corporations, organization & government make decisions?

Institutional Impact: How the agendas of organizations and individuals are changed and structure their preferences regarding choices and influences?

Distributive Impact: How is the distribution of way, wealth & power within and among the countries changed?

Structural Impact: How are the patterns & behavior structured? This contains Social patterns, political patterns, economic patterns etc. [6]

Source of lot of disputes over globalization involves different perceptions and the criteria employed in conceptualizing and defining it.

Globalization of any market is at hand. The powerful force drive arises by comprising the commonality of the technology. This has three distinct abilities over the idea of Globalization, as explained below. (Source- International sociology p-180)

Globalization as “ Transference” implies that there is an exchange across the existing unit boundaries, units and systems but it is presumed to be identical to each other.

Considering this interpretation, concept of globalization is an individual’s ontology, which is logically open for methodological structuring possibilities. Hence takes place at an inside out direction in its flow.

Following this logic of transference, we have an intense condensation of consequences today with larger systems being coupled over a corresponding inability to account for how the transformation of units might occur in process. So when there is a certain effect, it is possible to argue that globalization has a new geographical extension of state authority for pushing forward the process, while modern state remains as a globalization vehicle. (Source-International sociology p-184)

Globalization as “ Transformation” is a process which occurs at system level, affecting both system and identity of units in equal proportion.

This concept is distinct from the first concept which defines the concept of globalization as a multidimensional process that takes place outside in. But there is continuity between them, wherein this second concept theorizes exactly about what is left out and rendered enigmatically by the first concept. Transformation preserves the distinction between unit and the system, but relativizes & problematizes the system by turning it into a same level of units analyzed as its constituent parts. From this point of view, globalization might be made to look both necessary & irreversible. (Source-

International sociology P-186)

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Globalization as “ Transcendence” implies those distinctions that together condition unit, system and dimension identity. Under this case, the Globalization is neither inside out nor outside in but rather a process that dissolves the divide between inside and outside.

This concept is harder than that of transformation, because its concepts are beyond conventional theoretical categories. Globalization brings change not only to identify the units & system, but also to the conditions of existence of objects of enquiry and the fields where they are temporalized as per the requirement of human knowledge, hence deriving the globalization forward in a dynamic & irreducible form within particular dimensions. [5]

Impact of Globalization:

People rely more on market economy which has provided more faith in private capital & resources, wherein International organizations started playing vital role in developing Industries giving fair impact to certain extent by giving varied opportunities.

<http://www.fotosearch.com/bthumb/ICN/ICN219/F0015451.jpg>

It helped in improving better productivity, hence improving standard of living. These are the positive impacts of Globalization over the Industries. The negative impact of globalization has thrown uncertain challenges like inequality across & within industries along with market and environmental situations becoming worse. Industries being guarded by trade, investments & financial issues, Liberalization process took the pace of Globalization.

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“ Financial globalization” impact is huge in the composition of national & international capital markets. The banking system was mostly stirred & it had to experience the dis-intermediation.

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Positive Impact: Enhanced capital flow in each & every country with which a country at any time is ready to face the financial confrontation. Capital flow between nations increased, which resulted in a well-organized way & Improvement in the standard of living.

Negative impact: Poor economy of any country would be affected by financial shocks of different countries. It would cause a severe disorder & cost high for stock market turbulence, bank failures, corporate bankruptcies, currency depreciation, etc.

For financially developed countries, financial globalization would reap out an extremely advantageous output. [7]

Impact of “ Competitive globalization”- Globalization has created fast growing market that stimulates new competition, demands higher level of efficiency & requires true ability in supply chain development. Globalization of Industry & technology promises to accelerate transnational integration & cross-fertilization in engineering, technology and management.

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Fig: Competitive Globalization. (Google images)

Competitive globalization of technical activities improves the difference and depth of current stock of world engineering and resources & thereby provide greater stimulus to economic growth and technological development. [8]

Impact of “ Production Globalization”- Major measures initiated as a part of the liberalisation and globalisation strategy in the early nineties included scrapping of the industrial licensing regime, reduction in the specialization, correction of the ownership and the restrictive trade practice act, start of the privatisation programme, reduction in tariff rates and change over to the market determined exchange rates.

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Fig: Production Globalization (Google Images)

India has to concentrate on five important areas to achieve the set goal. The areas like technological entrepreneurship, new business openings for small and medium enterprises, importance of quality management, new prospects in rural areas and privatisation of financial institutions. The manufacturing of technology and management of technology are two different significant areas in the country. [9]

Globalization has many positive, contemporary & enterprising aspects so as to increase the market access, capital access & access to technology which improves the income & employment opportunities.

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Intensified competition given through the transfer of investments, production & rapid structural changes is the main principle of globalization. But if there is any pressure from globalization, it would affect the employment relations at regional, national & international levels.

### **Source- Human resource champions (Dave Ulrich) p-176**

Important Effects of Globalization are raising competitiveness, relocation of economic activities, structural changes in economy, increased integration of global economic activities, improving technological advancements, increased innovation and skill mismatch. Impact of globalization varies considerably according to the organizational settings within each country; this framework influences the employer strategies & business interests. Source- Human Resource Champions (Dave Ulrich) P-181 [10]

Challenges of Globalization:

The influence of globalization framework describes extent to which the firms respond to the opportunities & threats evinced by Globalization; it is characterized by management initiatives to modify business tactics, marketing activities & general series of tactical exercises in adroit move characterized by craftiness.

Challenge : Earth Puzzle

Prominent challenges of globalization are, competitive horizon is dominated by globalization.

Globalization entails new ways of thinking about business; it may be regarding new markets, products, mind sets or competencies. Complex network of global centers of excellence is required for effective global competencies.

Developing countries when integrated into global economy will present difficult challenges which are worth gaining. This is to be more significantly achieved by Industrial & Developing countries. This provides an opportunity to improve the welfare over the long term.

Wide ranging impact of globalization touches on many basic philosophical questions that give raise to different challenges. Globalization challenges to the traditional assumptions like profound quantitative increase in and intensification of social relations. [11]

Detailed Description of Globalization impact over the service, product & financial issues:

To understand this whole concept, let us consider an example to be the context; wherein I have considered “ QUEST GLOBAL” to explain this whole concept.

[http://www.quest-global.com/images/Quest\\_logo.gif](http://www.quest-global.com/images/Quest_logo.gif)

Fig: Quest Global (questglobal.com)

“ Growing is easy when company is small, but growing is not as easy when the same company grows bigger”.

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Quest global is a leading provider of diversified engineering & manufacturing services globally.

It employs over 2000 professionals and has delivery centers in India, USA, Italy, Japan, Germany, France, Singapore, UK & Spain.

Quest Global is ranked World No. 1 in 'Engineering Service Outsourcing' by the Black Book of Outsourcing 2009. Quest Manufacturing specializes in precision manufacturing for aerospace, automotive and industrial components, power generation, large scale turnkey fabrication, design and manufacturing of test rigs, tooling, fixtures and gages.

Quest has partnered with more than 10, 000 companies around globe. It is a globalized company which is more stable in the systems management market for more than 20 years offering solid brand recognition. All over the world customers have selected Quest Global because of its product innovation passion, deep manufacturing expertise & main focus over the consumer needs. [12]

Milestones: At first, found Ajit Prabhu & Aravind Melligeri in New York (Chairman and Chief executive Officer); after which 'Quest Global India' was set up in Bangalore. It acquired a position of leader in providing Computer Aided Engineering consulting services, so as to enter the automotive domain. Finally by 2 years of hard work, it received its ISO 9001: 2000 certification. Next step was getting appointed by 'Ansys', as its first-of-its-kind Centre of excellence in India.

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Fig: Milestone (Google images)

It signed up with United Technologies in Aero scope domain to provide good services. Wholly owned subsidiary was set up in Italy with its office at Florence, then in China with its office at Hangzhou. It received funding from Carlyle group that invested so as to improve its facilities & to access new customers or markets. Wholly owned subsidiary was set up in Japan with its office in Yokohama City. Expanding of Aerospace manufacturing and Magellan Aero scope; Quest Global Manufacturing signs a 10 year strategic agreement. Both Quest Global and Magellan launch India's first special processing facility for aerospace manufacturing. It received the award ' ISO 27001' for product development and engineering solutions & promoters bought back the Carlyle stake. It achieved ' AS9100' Certification for aerospace manufacturing.

Quest global becomes 1st India private sector player qualified globally to offer end to end solutions to EADS (European Aeronautic Defence & Space Company). Quest manufacturing sets up a sheet metal fabrication facility for aerospace. Company got the notification from Government of India to lease out land at its precision engineering SEZ (Special Economic Zones) at Belgaum, India. It won competitive strategy leadership award from Frost & Sullivan. It acquired ASE (Automotive Service Excellence) Technologies. It was awarded International Head Quarters Status by EDB (Economic Development Board), Singapore.

Quest Global's commitment to quality and distinguished record in Engineering Consulting Services and Manufacturing has enabled it to

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establish a leadership position in most of its service offerings. With a “ best-in-class” global leadership team, Quest Global is recognized as one of the largest pure play engineering services player, providing integrated product development and build solutions across the engineering services value chain. [13]

After looking at all these achievements, we can understand how well this company is influenced by the production & competitive efficiencies and has helped the company to grow in a well-developed manner globally all over the world. The vision of this company is to be most recognized & respected ‘ global product development solutions partner’ to their customers. With respect to these visions, the company has its mission set which is to enhance the profitability of their customers through globalization.

The core values for acquiring this mission are: <http://www.eaaev.org/images/mission-statement.jpg>

Customer focus.

Change championship.

Teamwork.

Accountability.

To provide the globalized engineering service, they made use of crucial soft skills with the conclusion that, there is no one size fits to all solution for managing that satisfying level of end users. According to their opinion,

customer relationship management & communication were important for which the result would be seen in the milestones mentioned above.

There is a tremendous change experienced in outsourcing characteristics which is aiming towards the tactical & strategic benefits globally. Initially started with the availability of resources, which is now transformed into strategic initiatives like diversity, new capabilities & catching up new markets trend for increase in productivity & profitability of company. This has given major challenges ahead before achieving the goal that is set by the company.

The solution for these major challenges was an excellent program managing framework, which helped in achieving the goals, maintain & implement increasing benefits within the company. The foremost and key successful factor for the success of globalization is an effective & efficient framework for managing the program in more productive manner.

This process includes understanding customer needs, new value propositions based on the extracted needs, implementation of approved value propositions, value addition which helped in continuously improving. All these factors were achieved only through efficient coordinating with end users, management, sponsors, team members, supporting functions and suppliers for the relevant integration and control of various processes.

Once the goals are being set into the framework, it is very important that clear objectives are to be defined for the whole process to be successful. In most of globalized environments all the parameters are framed for the growth & support of the business, increase in the return of investment  
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(margin & velocity), continuously customizing the customer needs & not losing any opportunities.

The driving factor that contributes to pull & push system required highly motivated and energetic leadership which plays the vital role and to react for changes that may occur drastically. All processes were made flexible, mature & capable at all stages- program, project, task & activity. Resulting output with standards were made acceptable by appearance, domain or the function. This success was made possible by establishing proper vision, mission, growth, n finally implementing these road maps with effective controlling & changing these maps according to the customer requirements. SWOT analysis was more reliable for understanding the customer needs by filling the frequent gaps or risk analysis. To foster the quality, detailed process tools were used in the framework. Techniques like Manage by wandering around (MBWA) & Manage by action items (MBAI) were used as a key drive to the success.

This company has three different domains in which it has been successful all these years; they are Aerospace, Automotive & Industrial products. When we just concentrate on how this company has improved globally within all these three domains individually, we get to know different characteristics from each and every domain. Looking into the ' Quest Manufacturing' domain, it specializes in manufacturing products with precision, fabrication of sheet metal, tool design & development, aerospace gauges & fixtures, special processing, Industrial & automotive verticals. Customized & end-to-end solution is provided by flexible and modular approach from design to manufacturing; this reduces the cost & value being increased.

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When exploring 'Quest Engineering' domain, this company provides modified manufacturing & engineering services. This company helps customers in different fields like industrial products, consumer electronics, in aerospace, health care, oil & gas, power generation so as to cut product development costs, shortening lead times, maximizing the availability of resources, extending capacity by providing the complete support across the product life cycle from design & modeling through analysis, prototyping, automation, data documentation, instrumentation & controls, embedded systems development, manufacturing support, vendor management & in-house precision machining. [14]

They utilize a systematic approach called 'Global product development' in order to bring resources together and manage from low cost regions to improve the customer's profitability. It also uses 'SEZ' for precision engineering which provides best-in-class facilities & infrastructure for aerospace industry.

C: UsersNamrathaDesktopashwiniCapture. PNG

Fig (a): Increased Variation in achievement of the company in previous years. (Image from trusted source)

Influence of financial, competitive & production globalization on the relationship of Quest-Global and its client world-wide includes lot many significant factors. They are:

“ Mindset” – We will do.



There are 3 important mindset over which the company must focus for the productive outcome. They are It will happen, It may or may not happen or It's not going to happen. Chances of the company's success increases dramatically only when the process starts with " We can do it" mindset.

" Quality Delivery"- Customers are God.

No service business can sustain & grow if it is not able to cherish its customers. Repeating business makes the issue possible. Quality always comes first, cost always comes next.

" Customer Focus" – Listen to the Customers.

Customers are the vital players of any company are business, because they are the providers of Statement of work & they are the individuals who give purchase orders.

" Hands on & value driven"

It is not just the job we have to perform, but it is our mission. This must be the attitude of people involved in work in any company. This was the concern each & every worker in this company which has increased the global position of this company to a very large extent as shown in the graph. [Information from trusted source]

The other two important factors that are influencing the growth of this company worldwide drastically are Outsourcing & Off-shoring.

To make the product development cost minimum, to shorten the lead time, for the capacity to be extended, engineering resources to be maximized, the company use the technique of Outsourcing.

To build & deliver the products that are better and cheaper, to minimize the developing costs, to reduce the lead time, maximizing the resources, the technique of Off-shore engineering service is being used.

This transforms the vendor company into a global force. Hence, this company is one of the top off-shore engineering companies for its resilience as a mature & stable for their clients.

Quest's expertise in outsourcing engineering services ranges from concept design, detailing & analysis, to product realization solution in all fields like aerospace, civil structures, power generation, industrial products, oil & gas and transportation. They provide better, faster & more value-optimized solutions through global product development framework. [15]

## **Conclusion:**

By realizing their future goal, they clocked the revenue value fixed per every headcount in the company to certain value for certain time period. Even under that recession period that occurred in 2008, it grew its revenue by 15%. This had an effect of growth mindset, strong cost controls & cautious spending which helped them in sailing over complications without making any undeniable choices across the board until this point of their global journey.

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Fig: conclusion (Google images)

They also used the strong key factors to stand strong over the global market; they are committed team members, focused strategy on strategic accounts, ability to adapt and meet the client needs. The company looks its future goals in a very promising way, due to which they are backed by strong bonding with their strategic accounts with Rolls Royce, Pratt & Whitney, GE, Hamilton, Sundstrand, P&G, EADS and several other emerging accounts.

Their belief in saying, “ Past success does not guarantee the future success” has helped them in achieving a drive of 40% growth every year. This result has created a dynamic market that has stimulated a strong competitive environment within the company and also the demands have reached a very high level of efficiency, this also requires true ability in supply chain development for both Financial and production impact. The Industry & technology they are using, it promises to accelerate transnational integration & cross-fertilization in all sectors of engineering, technical & management.

Bringing together and managing resources from low cost regions has helped them enhance their customers’ profitability. The usage of automation tool in production domain has helped the user in reducing the design cycle time considerably which provides with more accurate and detailed information. All the design rules and logics are now incorporated inside the master models which help in better knowledge management. The migration from 2D to 3D

CAD platform has helped the user in reducing design errors and provides <https://assignbuster.com/the-impact-of-globalization-on-engineering-companies/>

better visualization of the product. The standardization of the product structure and design practice and automating the same has given the user an edge over its competitors. [15]

Their competitive globalization of technical activities has promised to improve the differences & depth of current stock of world engineering and resources; thereby providing the greater stimulus to the economic growth & technological development. [Information from trusted source]