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Integrated Strategic Factors Framework

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Purpose

The literature available on post- COVID 19 strategy review is rare. The purpose of this paper is to present an integrated strategic factors framework that covers uncertainties such as COVID 19 pandemic, new geopolitical environment, and climate change as well as organizational value chain factors.

Design/methodology/approach

Based on literature review, strategy theories, articles from global consultants, and the author's industry experience, an integrated strategic factors framework has been developed. The approach taken is thus exploratory and pre-paradigmatic. This sets the stage for potential empirical study.

Findings

The purpose of this study to develop an integrated strategic factors framework has been achieved. The impact of the changing external environment on an organization's primary and support activities that form the value chain brings out new strategic factors. The framework once validated by empirical research can be a useful tool for robust strategy making

Research limitations/implications

The framework proposed in this paper has not been tested empirically. This sets clear limitations regarding generalizability. The research has added to the literature on strategy as an integrated framework incorporating external as well as internal value chain factors

Practical Implication/Social implications

The proposed integrated strategic factors framework can be used to plan robust strategies since it considers uncertainties such as natural calamities due to climate change, pandemics, and geopolitical changes.

Originality/value

To the authors' awareness, the external and internal strategic factors have not been integrated into a single framework before. This is an original work carried out by the author. It proposes the integrated strategic factors framework for the first time. It makes strategy-making/review much easier

Keywords: The Pandemic, Integrated, Strategy, Framework, Factors, Uncertainties.

Introduction

COVID-19 which struck the world in December 2019 and was declared a pandemic by World Health Organization on 11 March 2020, has wreaked havoc across the globe

National lockdowns and border closures (Ibn-Mohammed et al., 2021)were implemented to isolate infected cases and limit the spread of the virus. Complex global supply chains were disrupted, adversely impacting supplies of most goods (Ibn-Mohammed et al., 2021). Due to

this disruption, the developed and developing countries realized how overdependent they were on China. As of December 23, 2021, approximately 276 million people have been infected by the Coronavirus and 5.37 million lives have been lost (WHO 2021). It is expected that there will be more frequent pandemics in the future. Disruption of supply chains and virtual stoppage of goods arriving from China during the pandemic forced industrialized nations to rethink their manufacturing and supply chain strategies.

Globally lockdowns, border closures, restrictions on movements, assembly of people, have devastated the fundamentals of economies of nations. It is estimated that 2.96 trillion U.S. dollars have been lost in terms of global economic output. (Szmigiera, M, 2021)

Climate change is equally important if not more. It slid back from focus during the last 2 years since the onset of the pandemic due to its urgent critical nature. It has affected a large number of countries in Europe, North America, Africa, and Asia. Even Nordic countries are experiencing heat waves like never before. The estimate of economic loss due to climate change for the globe is pegged at US Dollars 2.7 trillion per year. (Worldbank, 2021) Loss of economic opportunity for India is estimated at US$35 trillion over the next 50 years due to unmitigated climate change risk. (Delloitte, 2021)

In summary, we are facing extraordinary global geopolitical situations namely, pandemic, climate change, and the possibility of a global realignment of nations.

Literature Overview

In respect of the literature specific to the review of strategies due to the impact of Covid-19, the studies are very few. COVID 19 pandemic is affecting strategy making and some strategic shifts are being observed. Short-term strategy making is preferred, for now, more localization and slowing down of globalization is expected (Lorange, 2021). Supply chains of the companies that have been affected by the pandemic are shifting suppliers in favor of nearshoring and geographical diversification. (Hoek, 2020) An automobile industry supply chain study also proposes diversification, reshoring of the supply chain as a risk mitigation measure to deal with pandemic-like situations. (Shin et al., 2021) . Anti-globalization feeling in developed countries has increased due to COVID 19. It has affected multinational companies and those that depend on trade. (Curran & Eckhardt, 2020) , strategic rethinking is required for manufacturing sector revival and to keep it competitive (Deshmukh & Haleem, 2020)The author could not find literature on complete corporate strategy review necessitated by COVID 19 pandemic. This paper intends to discuss the need for an integrated strategy factor framework to evaluate a situation that has arisen due to COVID 19.

Brief on current Frameworks

Fast changing geopolitical landscape and rapidly altering business dynamics in the wake of the COVID 19 pandemic, raise monumental management challenges before corporations. These challenges call for a critical comprehensive review of corporate strategy. It is the complete strategic review and the insights emerging thereof that will equip the management with strategic options and direct them towards developing solutions to sustain their business efficiently. However, the strategic review needs to be based on appropriate strategic factors and conceptual framework. There is confidentiality associated with firm strategies in different industries. Therefore, the literature available about strategy frameworks deployed by firms in various industry sectors is limited. (Ayoubi et al., 2018)The specific framework for Technology management strategy in automobile, Agriculture (Woods et al., 1998), Multi unit firms, etc. have been proposed by some authors in the literature. Every organization should develop its strategy factors

framework driven by its vision, mission, and objectives. Such a framework is better suited for changing environments (Knott & Thnarudee, n.d.) However, since the intent of this paper is to develop an integrated strategic factors framework, a limited literature review of strategic management tools that will be used has been done. The intent is to holistically discuss the internal and external strategic factors framework which could be applied to analyze the dynamic business environment that has arisen due to pandemic and arrives at strategic insights.

PEST concept was first developed by Francis J. Aguilar (1967), he proposed 'ETPS' for the four sectors of his taxonomy of the environment: Economic, Technical, Political, and Social. In the turbulent environment arising due to pandemic, the business environment can be analyzed under the concept of PEST analysis or PESTEL analysis which is an extension of the former.

The strategic review shall be carried out with PESTEL Analysis and modified Value Chain Analysis (Porter,1990) which shall be briefly discussed. The main premise of value chain analysis is that it is the unique value a firm creates and offers to the customer by a unique combination of its activities and support services. PESTEL analysis facilitates recognition of environmental factors the company operates in. Secondly, it also helps in forecasting environmental situations that could occur in the future. It is therefore imperative that strategic analysis begins with PESTEL analysis (Yüksel, 2012)

In this paper strategic factors affecting the company's primary and support, activities are identified through a discussion. Modified PESTEL analysis from an external environmental point of view is applied to the modified value chain component.

Methodology

The methodology used in this paper is described step-by-step in different sections. The second section is a brief literature review. The third section discusses the currently applicable strategy frameworks relevant to the subject of this study. The fourth section is dedicated to the development of a strategic factors framework.

Development of the Framework

PESTEL Factors

The external environmental factors have become extremely important due to ensuing geopolitical changes, climate change, and pandemics. The world has not experienced such a combination of critical environmental factors perhaps in the last century. External environmental analysis has become very important for strategy formulation, implementation, and review of companies. PESTEL factors are modified to include the effects of new environments and geopolitics in the following paragraphs.

Political

Political factors have assumed significance because of specific political developments across the globe. The Chinese aggressive stance towards Taiwan and continuing escalation of threats, military build-up in the South China Sea, withdrawal of US forces from Afghanistan, withdrawal of UK from EU under BREXIT, Russian hawkishness with Ukraine are these developments to name a few. In the connected world, every business is a global business in a sense. The business of a purely domestic player also could get threatened due to the import of the substitute products. Due to the WTO regime, independent nations have only limited leverage to protect their domestic industry. Domestic politics always plays an important role in the political environment of an organization.

Economic

COVID 19 pandemic has very badly affected developing economies and developed economies. Interest rates, inflation, GDP, taxation, and the developmental stage of the nation are major economic aspects for analysis.

Added to these are economic relief and incentive packages, production linked incentives, sectoral grants, tax holidays announced by various governments.

Socio-cultural

Socio-cultural factors drive consumer demands and opportunities for business. The Digital revolution has altered consumer preferences. Online shopping versus in-store buying for grocery, electronic goods, books, film booking, etc. and the list is continuously growing. This has a significant bearing on business strategy.

Technology

Technology is all-pervasive and technological obsolescence is very high in most products. With Digitalization, Artificial Intelligence, and Machine learning to name a few, new technologies are revolutionizing the way business is done.

Environmental

Environmental factors such as frequent flash floods and heatwaves in the regions which have never experienced these, soil erosion due to rising sea levels, forest fires are a reality we have to face. The effect of climate change forecast in the region is an important metric for strategy.

Legal

Legal factors such as licensing of processes, GI tags, patents under intellectual property laws, environmental regulations specific to industries and geographies are the regulatory and compliance requirements that have to be kept in mind during the analysis. There are global legal considerations such as free trade agreements, international treaties, tariff barriers, import concessions, etc. are to be considered for a global business.

Application of PESTEL Analysis to Primary Activities of an organization

Primary activities of the organizational value chain are grouped into Product and Service Design, Manufacturing and Operations, Supply Chain Management, and Marketing & Sales. The support activities are Human resources management, Organizational Infrastructure, and Technological Competence & Infrastructure

The premise is that PESTEL factors affect primary activities and support activities of organizations. There is no evidence in the literature of study of the effect of environmental factors on primary activities and support activities. Effect of PESTEL factors must be studied on each of the primary activities and support activities. The theoretical approach is to identify strategic factors that affect primary and support activities.

Product or Service Design

Political

Physical Infrastructure- Product and service specifications have to be manufacturable. Manufacturability depends on the availability of physical infrastructure. The infrastructure referred to here is basic which is generally provided by the government such as adequate water, desired electrical power, roads, social infrastructure, etc.

Legal provisions governing products decide the specifications that a product/service can have.

Economic

Disposable income drives the product design and specifications in a particular region. A product fully loaded with features may be good in quality, however, if the target population does not have enough disposable income, it will not be able to generate sales.

Scio Cultural

1. Age distribution in the population indicates the type of user the product or service is to be designed for.
2. Gender Ratio – Designers have to bear in mind what is the gender of the

majority of the users for a particular product/service
3. Average family size – Product capacity and size is dictated by the average family size.
4. Life expectancy – Knowing life expectancy helps the firm to design specific services/products for senior citizens.
5. Attitude towards leisure – Population willing to spend money on leisure drives the design and demand for suitable products.
6. Consumption of luxury goods – If the luxury goods consumption is sizable, luxury products could be designed and manufactured.
7. Quality consciousness- With increasing awareness about quality, firms must produce quality products/services.

Technological

1. Manufacturing ecosystem – Product design to a large extent depends on the availability of level of manufacturing ecosystems consisting of supporting ancillary units, testing & calibration facilities
2. Digitalization- Design process capability is driven by the extent of digitalization in the firm.

Environmental

1. Climate – Temperature variations and rainfall are critical factors to be considered in product/ service design.
2. Recycling and waste management– Product design should be such that most of it should be recyclable at reaching its end of life.

Legal

Applicable standards – Every product needs to be designed as per the applicable national and international standards and codes.

Manufacturing and Operations

Political

1. Physical Infrastructure- planning of manufacturing facilities is driven by the availability of physical infrastructure closer to the plant location. Availability of adequate water, desired uninterrupted electrical power capacity, ancillary units, central effluent treatment plants, common test facilities, access to ports, airports, and markets. Global geopolitical alignments must be considered while setting up a facility. Realignments could hinder or facilitate technology transfers, collaborations, etc.
2. Legal and regulatory provisions regarding the location of specific types of manufacturing units have to be ascertained while locating a manufacturing facility. Global legal requirements

Economic

1. Labor costs are a very critical component in deciding the manufacturing plant location. Every business is a global business. Labor cost for a similar product in other competing nations has to be found out. If the manufacturing cost in your country is more than that in other countries, it would not be long before the market is flooded with products from that competing nation.
2. Workforce productivity – This drives the total cost of production along with labor cost.

Socio-cultural

1. Age distribution in the population – Indicates the availability of the working-age population which could be used for manufacturing.

2. Gender Ratio – It is important to know this factor, since males are more suitable for manufacturing involving arduous physical work, whereas females are more efficient in certain manufacturers such as electronics, computers, etc.
3. Literacy level – A high literacy level means easily trainable personnel for manufacturing.
4. Work ethic – A good work ethic is a critical requirement for efficient manufacturing operations.
5. Safety culture – Society with a good safety culture contributes better workers for manufacturing. Damage to equipment, work-related accidents/injuries cause loss of productive machine time.
6. Quality consciousness – Quality conscious workforce avoids defects by maintaining consistently acceptable quality during manufacturing. Defective products cause loss of reputation and eventually market share.

Technological

1. Technology infrastructure level – Availability of advanced technology infrastructure within the region/country makes manufacturing easier and cheaper.
2. Manufacturing ecosystem – The presence of a competitive manufacturing sector helps a new unit by providing competitive ancillary support as well as healthy competition.
3. Digitalization – It is among the most important aspect of manufacturing today. Implementation of the Internet of Things, Artificial Intelligence, Machine learning in manufacturing needs to be explored and adopted. This makes operations easier, reduces downtime, improves efficiency, helps avoid equipment breakdowns with predictive maintenance. Robotic Process Automation – deploying robots in place of humans for performing repetitive activities and dangerous activities makes manufacturing more efficient and safer.
4. R&D capabilities – Investment in R&D is important for the long-term sustainability of manufacturing and business. Continuous improvements are what drive product innovation and sustenance.
5. GDP spend on R&D – If the government and the industry spend adequate amounts on R&D it adds to the capability and competence building of the nation. The manufacturing sector benefits from these investments.
6. Incentives to spend on R&D – Government incentives to the private sector also improve R&D capabilities.
7. Access to the latest technology – Technological developments take place in government laboratories as well as private laboratories. Providing access to these new technologies for interested manufacturers is critical for new product development.

Environmental

1. Effect of climate change - Every manufacturing plant must critically be examined for its location about the forecast of effects of climate change. Be it floods, soil erosion, heatwave, their future impact on the region must be analyzed
2. Recycling – Recycling of used water must be encouraged. The principle of the circular economy could be used by reusing some of the waste material, substituting some raw materials with organic materials could also be explored.
3. Waste Management – Disposal of unusable waste must be done as per

provisions of the pollution control requirements.

4. Pollution control requirements. – Manufacturing plants must be designed for zero discharge, meaning there should be no effluent of unacceptable quality, be it solid, liquid, or gaseous discharged into the atmosphere or water streams. These should be treated to a legally acceptable discharge level before disposal. Pollution control rules define the acceptable discharge parameters.

Legal

1. Environmental pollution control Laws – Compliance with pollution control laws must be adhered to.
2. Health and Safety Rules – The factories act/ relevant laws stipulate the requirement regarding temperature to be maintained, air quality, noise level, layout requirements at the workplace. Safety standards and codes prescribe safety precautions for manufacturing units.
3. Labour laws, workmen compensation rules, insurance, minimum wages, working hours, etc. are prescribed by concerned government/local authorities.

Supply Chains

Evaluation of risks to the supply chain in the wake of new geopolitical alignments, the possibility of more pandemics, and climate change need to be properly evaluated. The consequences of the occurrence of these events could cause massive disruptions in the supply chain resulting in unforeseen economic losses and sometimes closure of business. Existing, as well as new proposed supply chain, have to be critically evaluated considering changed geopolitics. Regional trade cooperation agreements, the creation of trade blocks, and the introduction of trade barriers, sanctions, etc. will have far-reaching consequences on supply chains.

Some of the risk-mitigating measures could be: developing alternate local suppliers, developing suppliers in different regions/countries with minimum risks.

Political

Legal and Regulatory provisions - Legal and regulatory provisions such as inter-regional cess or tax should be considered regarding the transportation of goods within the country. There are stringent rules on the transportation of certain goods such as explosives, petroleum products, chemical products, etc. these must be considered while designing supply chains. For global supply chains sea, routes, regional conflicts, safety, and alternate routes must be planned and their costs built in.

Economic

Labour, warehousing, and freight costs are the major components of supply chain costs.

Socio-cultural

1. Literacy levels- On-time deliveries are critical for efficient logistics and supply chains. A better-educated workforce helps build efficient supply chains since they can understand the importance of on-time delivery.
2. Work ethic- good work ethic results in better efficiency.
3. Safety culture – Supply chains involve multiple movements of materials that are prone to accidents and damage to equipment and materials. Safety culture helps in implementing better safety practices and avoiding mishaps.

Technological

Technology plays a crucial role in the optimization of supply chains. Digitalization of components of the supply chain process increases its efficiency manyfold. Extensive use

of EDI, GPS tracking of transport vehicles, use of DLRs, and smart contracts make processes faster and minimize mistakes. Application of Robotic Process Automation in supply chains particularly in material handling and loading significantly improves efficiency.

Environmental

All the constituent units within the supply chain must follow Recycling, Waste management, and pollution control requirements and laws. Specific transport and storage requirements of dangerous goods such as petroleum, fertilizers, chemicals, explosives must be understood, handled carefully, and costed for.

Legal

Supply chain constituent units must follow cross-border export-import rules, comply with customs duties, packaging, and fumigation rules.

Marketing and Sales

Political

Applicable legal and regulatory provisions to be studied and adhered to

Economic

1. Domestic Tax rates- Taxation (GST) is an important component of the market price of the product/service. For marketing, it is the final price of the product after tax in the hands of the consumer decides its competitiveness. Market penetration depends on the final price.
2. International – In global markets the marketing team needs to study the import taxes in the country where the product is being exported to. The base price needs to be set at such a level that after import duty the price of the product is competitive for the consumer. In the case of countries within the trade block, free trade agreements, there could be waiver/concessional duties on the product making the export easier and price competitive. Trade barriers make imported goods expensive.
3. Disposable income – translates into the purchasing power of the consumer. More the disposable income more is the propensity to buy.
4. Price stability – Customers like price stability. However, price stability for a product/service can be maintained if the inflation is under control and the input prices are also stable. Marketers need to resort to various strategies to keep prices stable.
5. GDP – GDP growth is directly reflected in consumer spending. GDP trend helps the marketer to forecast demand.
6. Credit availability – Credit availability increases consumer spending and expands the overall market for non-essential and aspirational goods. In case of easy credit availability consumers avail of consumer loans to buy aspirational products.

Socio-cultural

1. Literacy level – Literate population makes marketing easy, particularly digital marketing. Literacy level decides the marketing strategy of the firm.
2. Population growth rate – It can be used to estimate the market size for the product.
3. Age distribution- Age distribution helps in estimating the market for specific products.
4. Gender Ratio – Estimation of gender-specific products can be done only based on gender ratio combined with age distribution.
5. Average family size – It can be used to determine the number of families

requiring certain products consumed only by families.

6. Life expectancy – It is an indicator of the products /services required by senior citizens.
7. Awareness about consumer rights – Marketers have to be careful in offering warranties, service guarantees for their products/services if the consumer awareness is very high.
8. Buying behavior – It decides where can the product/service be marketed. It can be physical stores, the internet, e-commerce platforms, distributors, etc.
9. Consumption of imported goods and services – This is an indicator of the affluence of society. The study of these trends tells the marketer about the market for products that can be manufactured within the country as a replacement for imported goods.
10. Attitude towards leisure – Leisure products/services market size can be ascertained by a study of these attitudes.
11. Consumption of luxury goods – A country whose GDP is growing at a healthy rate consumes luxury goods.
12. Quality consciousness – Organizations, in general, must strive to offer good quality products/services, but particularly so where the population is quality conscious. A quality-conscious population demands good quality products.

Technological

1. Digitalization – Every organization must digitalize its marketing as much as it can. It is easy for consumer products. With the proliferation of online meetings, part of B2B marketing can move online, saving travel expenses and travel time. Product/service information, presentation, etc. can be shared online during e-meetings. A new product launch can also be done online. Blockchain – Digital Ledger Records helps in the seamless sharing of records and smart contracts.
2. Mobile Connectivity & Internet penetration – These have become the backbones of doing business. Most of the business processes nowadays are available on mobile platforms.

Environmental

Marketers need to pay special attention to packaging materials to ensure that most of them can be recycled.

Legal

1. Global supply chains need to consider the following legal aspects and their effects.
2. Tariff barriers, trade restrictions from nations
3. Effect of bilateral, multilateral agreements and trade blocks.
4. Competition regulation, advertising industry code

Application of PESTEL Analysis to Support Activities of an organization

Support activities in this paper are modified to Organizational infrastructure, Human Resources management, and Technological competence and infrastructure. These support activities also get affected by PESTEL factors.

Organizational Infrastructure

It includes planning, finance, information, and quality control (Johnson and Scholes, 2001) systems. Internal organizational structures, routines, and procedures between the support activities are a source strength and part of its core competence. Primary activities together with the company's support systems with set methods and structures contribute to its performance.

Political

Legal and regulatory requirements affect financial systems in the company.

Economic

Tax rates, sectoral incentives, interest rates, central bank's monetary policies have to be studied concerning company requirements and the company investment strategy decided.

Socio-cultural

1. Literacy levels- A workforce with a good literacy rate is useful in staffing support functions.
2. Work ethic- Efficient Quality control systems can be built only based on well-qualified personnel with good work ethics.

Quality Consciousness – A quality conscious society helps build quality organizations

Technological

A technologically advanced industry environment makes technologies available to the organizations within the country. Support systems such as planning, finance, quality control, and information systems need software solutions to make them effective, reliable, and efficient. Technology also brings in a great amount of transparency to processes.

Environmental

Support activities such as planning, finance, and quality need to keep themselves abreast of environmental changes so that they could incorporate necessary provisions in their respective systems including the provision of finances.

Legal

1. In the support activities, financial activities are responsible for compliances to accounting standards, company law, corporate governance, disclosures, board meeting proceedings, etc.
2. The legal environment both domestic as well as global in the case of global operations has a significant effect on company business.

Human Resources Management

Political

The political environment in terms of governance, unionization of the workforce, bargaining power of the unions in a specific industry are important considerations during the evaluation of the human resources management structure and systems of a company.

Economic

Personnel compensation is affected by income levels indicated by per capita GDP. This affects the payroll cost which has to be kept in mind in local as well as global operations.

Socio-cultural

1. Literacy level- has a huge bearing on the availability of, recruiting, managing, and training of personnel.
2. Age distribution- Age distribution of the population combined with gender data and literacy rate could be useful in recruiting and training personnel.
3. Quality consciousness: Availability of quality-conscious population provides a solid base for staffing of an organization.
4. Work ethic- good work ethic results in better workforce efficiency.

Technological

Technological review and evaluation of HRM activities are essential. Digitalization of HRM processes brings in efficiency and effectiveness. Payroll systems, online learning, attendance system, performance management systems have become an essential part of HRM.

Environmental

Organizations exist in societies. The HRM system has to be sensitive to the surrounding environment. Corporate Social responsibility is an important aspect that cannot be ignored. Society is an essential stakeholder in every organization.

Legal

1. Health and Safety Rules – The factories act/ relevant laws stipulate mandatory requirements regarding temperature to be maintained, air quality, noise level, layout requirements at the workplace. Safety standards and codes prescribe safety precautions to be complied with.
2. Labour laws, workmen compensation rules, insurance, minimum wages, working hours, etc. are prescribed by concerned government/local authorities.

Technological Competence & Infrastructure

The Internal Technology infrastructure of an organization relates to all processes beginning with Manufacturing, Operations, Supply Chain, HRM, Marketing & Sales, and Information Technology. Digitalization brings immense benefits and costs savings to an organization. Specific digitalization technologies must be evaluated for every organizational process and appropriate technology is chosen. Other technology infrastructure would be equipment for manufacturing, material management, process technologies, etc. These technology infrastructure components should also be evaluated.

Political

Physical Infrastructure- Government emphasis on building national technology capability facilitates capacity building. A technology ecosystem that supports manufacturing should be used to evaluate a company's technology capability.

Economic

Government Incentives for technology upgradation need to be used if available to the firm

Socio-cultural

Age distribution in the population – Younger workforce with an above-average literacy level is conducive to building organizational technology competence.

Environmental

Equipment and Technology deployed by the organization deserves a thorough critical evaluation from the point of view of carbon footprint, greenhouse gas emissions, etc. An evaluation from the circular economy perspective also has to be done.

Proposed Strategic Factors Framework

Strategic factors that have emerged in the external analysis of primary and support activities of the organizational value chain are summarized in Table 1

Table 1. Strategic Factors Framework

PESTEL Factor	Strategy Factor	Primary and Support Activity
Political	PSF1- Basic local Infrastructure	Product and Service design Manufacturing and Operations
	PSF2- Geo political alignments	Manufacturing and Operations

		Supply chain
		Organizational structure
		Human Resources management
	PSF3- Legal and Regulatory	Product and Service design
		Manufacturing and Operations
		Supply chain
		Marketing and Sales
		Organizational structure
		Human Resources management
	PSF4- Unionization	Manufacturing and Operations
		Organizational structure
		Human Resources management
	PSF5- Ancillary Units	Manufacturing and Operations
Economic	ESF1- Tax rates, Interest Rates	Manufacturing and Operations
	and Incentives	Marketing and Sales
		Organizational structure
		Marketing and Sales

Table 1. continued

PESTEL Factor	Strategy Factor	Primary and Support Activity
		Technological competence and Infrastructure
	ESF2- Labour Cost	Manufacturing and Operations
	ESF3- Freight and Warehousing	Supply chain
	ESF4- Disposable income	Product and Service design
		Marketing and Sales
	ESF5- GDP and Income levels	Marketing and Sales
		Human Resources Management
	ESF6- Credit availability	Marketing and Sales
Socio Cultural	SSF1- Demographics	Product and Service and design
		Manufacturing and Operations
		Organizational structure
		Human Resources Management
		Technological competence and Infrastructure
	SSF2- Attitude to Leisure	Product and Service design
		Marketing and Sales
	SSF3- Quality consciousness	Product and Service design
		Manufacturing and Operations
		Marketing and Sales
		Organizational structure
	SSF4- Literacy level	Manufacturing and Operations
		Supply chain

		Human Resources Management
	SSF5- Workforce productivity	Manufacturing and Operations
		Human Resources Management
	SSF6- Buying behavior	Marketing and Sales
Technology	TSF1- Manufacturing Ecosystem	Product and Service design Manufacturing and Operations
	TSF2- Technology Ecosystem	Manufacturing and Operations Technological competence and Infrastructure
	TSF3- Digitalisation	Product and Service design Manufacturing and Operations Supply chain Marketing and Sales Human Resources Management
Environmental	ENSF1- Green Technology	Product and Service design Manufacturing and Operations Marketing and Sales
	ENSF2- Recycling	Product and Service design
	ENSF3-Pollution control	Manufacturing and Operations

Table 1. continued

PESTEL Factor	Strategy Factor	Primary and Support Activity
	ENSF4- Climate change and Pandemics	Product and Service design Manufacturing and Operations Supply chain Marketing and Sales Organizational structure
Legal	LSF1- Applicable standards and codes	Product and Service design
	LSF2- Compliance to pollution control	Manufacturing and Operations Organizational structure
	HSE, labour laws	Human Resources Management
	LSF3- Transportation rules Global laws	Supply chain
	LSF4- Tariff barriers, FTAs, competition Law, Advertising code	Marketing and Sales
	LSF5- Compliance to Financial regulations Disclosures Corporate governance	Organizational structure
	LSF6- Corporate Social Responsibility	Human Resources Management

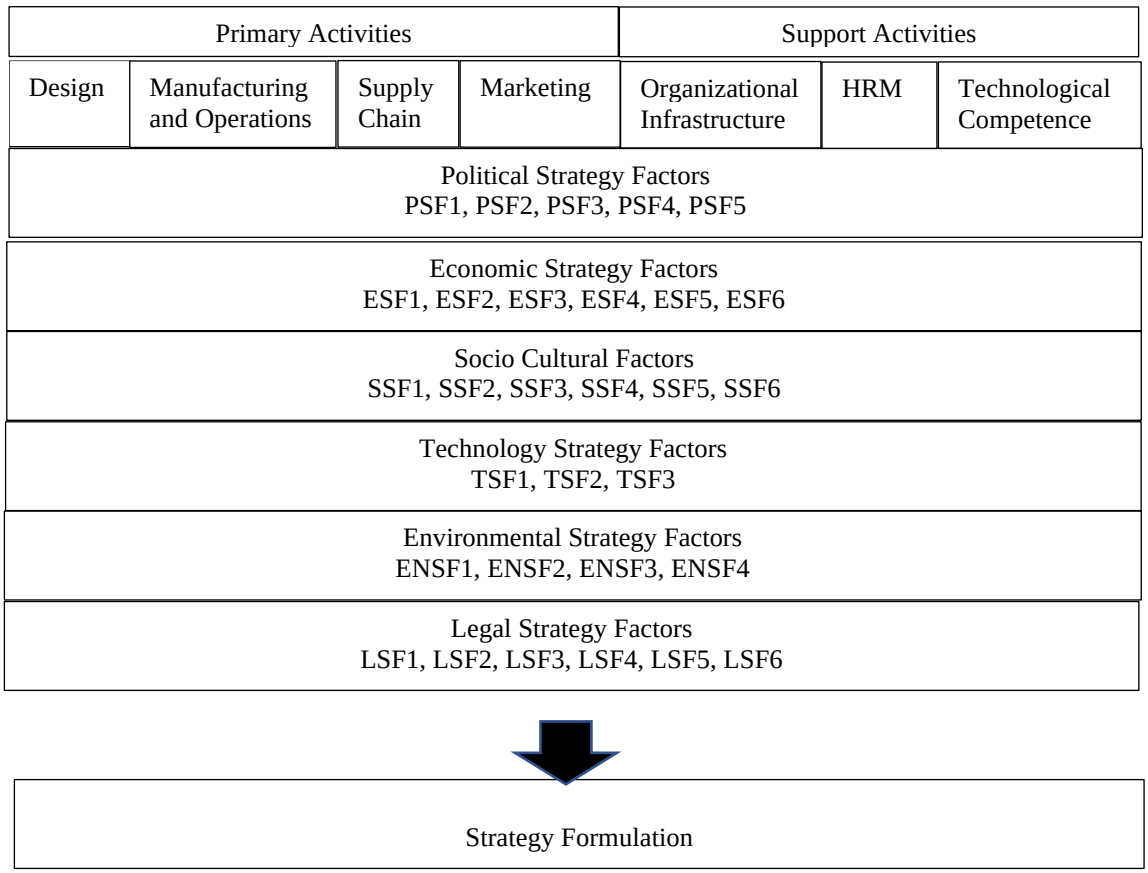

Figure 1 Strategic Factors Framework Diagram

The strategic factors that have been tabulated in the Table are in detail. The simplified diagram of the strategic factors framework utilizing short factors nomenclature is given in figure 1. The diagram makes it easier to visualize the strategy formulation exercise.

Discussion and Recommendations

The proposed strategic factors framework is a qualitative framework. It is based on the classical strategy theory assumptions which have been recalibrated to suit the current external environment. The COVID 19 has resulted in a complete overhaul of the strategic thinking in organizations. The recurrent factors that have emerged are as follows:

1. Localization of supply chains has been initiated
2. Plus one strategy is certainly in. Developing countries are looking to diversify their supply chains to countries such as Vietnam, India, Cambodia, etc.
3. Geopolitical factors have assumed significance in long-term strategy formulation.
4. Supply chains have to consider the effect of geopolitics while routing cargo etc.
5. Supply chain risk mitigation should include, localization and nearshoring.
6. Digitalization of all the processes in an enterprise is mandatory for survival. It is happening at a very rapid pace even in developing countries like India.
7. IoT, AI, ML, RPA, Web-based industrial applications are being implemented at a feverish pace.
8. Climate change must be given due importance in new plant locations, processes, and equipment selection retrofitting plants to reduce carbon footprint.

9. Corporations while formulating strategies should consider the costs of pandemics, climate change, and political disruptions.

Conclusion

The essence of strategy making is in getting into the details at the formulation stage and when there is an imperative need due to a radical change in the environment. The new dynamic that is emerging in the wake of the pandemic is one such radical change. This study has done exhaustive identification of strategic factors that need to be considered while formulating a new strategy or revaluating the current strategy. The tendency to consolidate these factors into lesser numbers for representing in a model or a framework will defeat the purpose of strategy making. The factors identified are generic but would apply to most businesses.

Research limitations/implications

The proposed strategic factor framework is conceptual and is based on strategy frameworks that have been substantially modified to understand the impact of the external environment on the strategy formulation of an organization. There are certain research limitations to this study. First of all, the proposed framework has not been tested empirically. This sets clear limitations regarding generalizability. Secondly, there is a possibility that some of the external factors such as legal provisions, weather patterns, typical to certain geographies may have been left out.

Practical Implications/Original Value

The research has added to the literature on integrated strategic factors framework for strategy formulation incorporating external as well as internal value chain factors. The proposed framework could be used for further empirical research. To the authors' awareness, the external and internal strategic factors have not been integrated into a single framework before. This is an original work carried out by the author.

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