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Managing Environmental Turbulence: Issues and Challenges

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Abstract

Environmental turbulence has become a regular phenomenon during recent years, due to a variety of reasons, like, rapid technological change, rising competition and globalization etc. Environmental turbulence is further aggravated by the phenomenon of 'Interlocking Fragility' arising as a result of interplay of forces of globalization and information & communication technology (ICT). Business firms have no option but to explore and even try to predict sources of emerging turbulence, examine its evolving impacts, and take proactive and flexible measures to respond to turbulent situations.

This paper examines various dynamics of turbulence, issues and challenges which arise in managing environmental turbulence, and ways and strategies for managing environmental turbulence. The study is qualitative in nature. The study is based on analysis of existing articles, papers and case studies relating to various dimensions of turbulence. The study also covers the case of Indian telecom sector which is undergoing 4th level turbulence (Ansoff) due to 'Business Market Innovation' drivenmarket turbulence unleashed by Reliance Jio, technological change and regulatory unpredictability on the part of TRAI. The case provides insights into variousstrategies pursued by thes telcos for handling turbulence.

Keywords: *Turbulence, Turbulent Environment, Normal Economy, New Normality, Unpredictability, Complexity, Dynamism.*

INTRODUCTION

Initially the word 'turbulence' was used to refer to atmospheric instability, such as sudden, unpredictable air movements resulting from a storm. In the present times, the word 'turbulence'is used to describe any situation characterized by extreme unrest, fluctuation, and disorder. In the organizational context, 'turbulence' refers to unpredictable, sudden and swift changes in its external or internal environments, or in an economy that affect its performance significantly.

Till 1970s, two swings in economy were normally observed. The first was the upswing that lastedusually between five to seven years. The second was the downswing that lastedabout ten to twelve months. The

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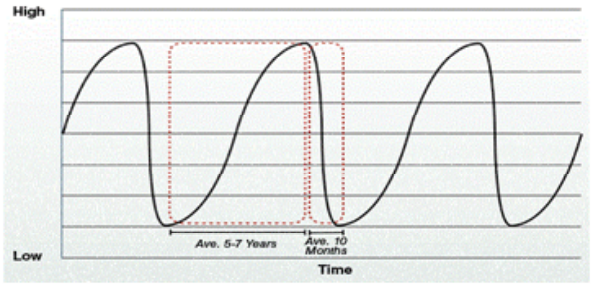
downswing was usually episodic and, and eventually ended, allowing economy to again resume the traditional, multi-year business cycle. These two swings were largely smooth and somewhat predictable. This phase was referred to as 'Normal Economy' (Figure 1).

Figure 1: Normal Economic Fluctuations till 1970s



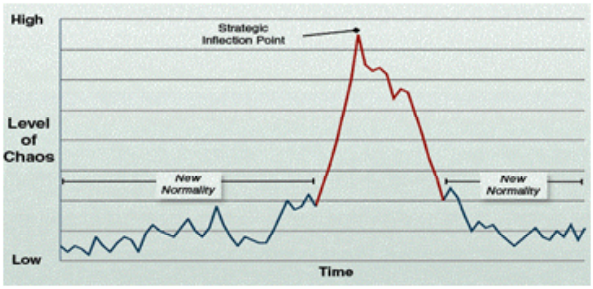
Source: Caslione, J. A., and Kotler, P. (2009). Chaotics: Leading, managing and marketing in the age of turbulence.

Since 1980s, business environment is becoming increasingly turbulent with every passing day due to the rapid technological change, rising competition, and globalization. The present era is sometimes referred to as 'The Age of Turbulence' or 'Chaos Punctuated New Normality'.It is characterized by high degree of Volatility, Uncertainty, Ambiguity and Complexity (VUCA). Now-a-days, former predictable 5-7 year upswing cycle of economy can no longer be counted upon to run its normal course.

Modern national economies may be characterized more by a chaotic up-and-down EKG heartbeat wave - a series of non-uniform W's - rather than the smooth and more predictable sine wave of the twentieth century (Figure 2). The firms are stressed, compressed and tested frequently.A firm may get one or two 'upswing' quarters that may give it some but not sufficient time to repair the damage faced during previous downswings, and turbulence may hit it again. It may become weak, and may not be able to survive over medium- to long-term.

The situation is further compounded by emergence of the phenomenon of '*Interlocking Fragility*', arising as a result of interplay of forces of globalization and information & communication technology (ICT). While in good times, such interconnectivity and interdependence work in favour of most entities; in bad times, such interlocking fragility spreads considerable pain and damage, virally, among most entities.

Figure 2: The Age of Turbulence – 1980s Onwards



Source: Caslione, J. A., and Kotler, P. (2009).Chaotics: Leading, managing and marketing in the age of turbulence.

For example, the year 2008 was a highly turbulent period for financial markets and the world, when many banks across the world could not meet their loan obligations and sought government support. Subsequently, some nation-states also faced difficulties in meeting their debt obligations and had to seek debt rescheduling. The turbulence rapidly spread from Western world to the rest of world; and from banking industry to other sectors and to national governments.

Thus environmental turbulence has become a regular phenomenon during recent years due to a variety of reasons. Business firms have no option but to exploreandeven try to predict sources of turbulence, examine its evolving impacts, and take proactive and flexible measures to respond toturbulent situations.

LITERATURE REVIEW

Turbulence is a natural part of life and business. Khandwalla (1977) defines environmental turbulence as a dynamic, unpredictable, and fluctuating environment. Baburoglu (1988) defines environmental turbulence as an environmentwith increased complexity, uncertainty, and dynamic &

unexpected directionalityof occurrences in a transitional state.

A turbulent environment is an environment in which one cannot predict the outcome of one's actions (Dankbaar, 1996). It is an environment characterized both by several changes occurring rapidly and simultaneously, and by a situation where only the most optimistic see the possibility of a return to a more stable environment in the foreseeable future (Sadler, 1996). The terms 'change & turbulence' may be said to carry same differences as the terms 'risk and uncertainty'. While a change is somewhat predictable, turbulence is equal to unpredictability (Emery and Trist, 1965). Thus turbulence is a complex aggregate of three dimensions: dynamism, complexity, and (un)predictability. These are discussed as follows:

- Dynamism – This dimension describes the degree to which elements of environmental components of the firm remain basically the same over time (stable) or are in a continual state of flux (dynamic), (Duncan, 1972).
- Complexity – The greater the numbers of elements and their interdependencies (Mintzberg, 1979), as well as the relatedness and concentration of the elements (Keats and Hitt, 1988), more is the complexity of the environment.
- (Un)Predictability –In unpredictable or uncertain or unfamiliar environments, development of extrapolation or extension of the cause-and-effect is incomplete (Krijnen, 1979).

Environmental turbulence usually occurs through market turbulence, technological turbulence and competitive intensity. Some of the key drivers behind environmental turbulence are as follows: political, economic, socio-cultural and technical/ technological factors. Market and demographic environment may be also volatile. Both domestic and international factors can be responsible for creating turbulence. These factors working in isolation or in different combinations act as a catalyst for turbulence.

According to Garrett (2018), future events can be divided into three classes. There are known knowns, there are things we know we know (which may create low turbulence). There are also known unknowns, that is, we know there are some things we do not know (which may create medium turbulence). There are also unknown unknowns– the ones we do not know we do not know (which may create high turbulence).

Greater the amount of change in environmental factorsand/or the greater the number of environmental factors, higher the level of environmental turbulence. Based on varying magnitude and degree of different factors, Emery and Trist (1965) suggested four types of turbulence: Type 1- Placid/Random (Almost perfect competition), Type 2- Placid/ Clustered (Monopolistic competition), Type 3- Disturbed/Reactive (Oligopoly head-to-head competition), and Type 4– Turbulent (Industry in constant motion; uncertainty)Whenever type 3or4 turbulence strikes, organizations may be doomed forever unless proactive and flexible measures are adopted by their leadership team to sail out of turbulence.

Ansoff (1979) classified turbulence into five distinct levels based on the changeability, predictability, and instability of the firm's environment, as follows: Level 1 - Repetitive (no change); Level 2 -Expanding (change is slow, incremental, visible, and predictable); Level 3 - Changing (fastchange albeit still incremental and fully visible); Level 4 - Discontinuous (future changewithin the industry is very different from the historical past); andLevel 5 -Surpriseful (change occurs without notice, without visibility, completely unpredictable, and extremely rapid). Whenever level 4 or 5 turbulence strikes, organizations and their leadership teams must take proactive and flexible measures to cope with evolving and dynamic situations. Kipley, Lewisand Jewe (2012) added sixth level 'Entropy' (Table 1) to Ansoff's description, as follows:

Entropy is defined as the measure of disorder or chaos in a system. When a system has lost all order (full disorder), it has reached

Table 1: Levels of Turbulence

Turbulence Level	1 (Low)	2	3	4	5	6 (High)
	Repetitive	**Expanding**	**Changing**	**Discontinuous**	**Surpriseful**	**Entropy**
Turbulence Level Descriptor	Repetitive, Stable, No change	Industry is expanding slowly, Incremental change	Industry is expanding fast, Incremental change	Industry is experiencing discontinuous but predictable change	Industry changes are completely surpriseful, not predictable	Industry experiences chaos, disorder, multiple disequilibrium events

Source: Kipley, Lewisand Jewe (2012). Entropy – disrupting Ansoff's five levels of environmental turbulence.

maximum entropy. Turbulences with levels of 4, 5 and 6 carry significant impacts on the business fortunes and their survival. Turbulence has two major effects: 'Vulnerability'and 'Opportunity'.

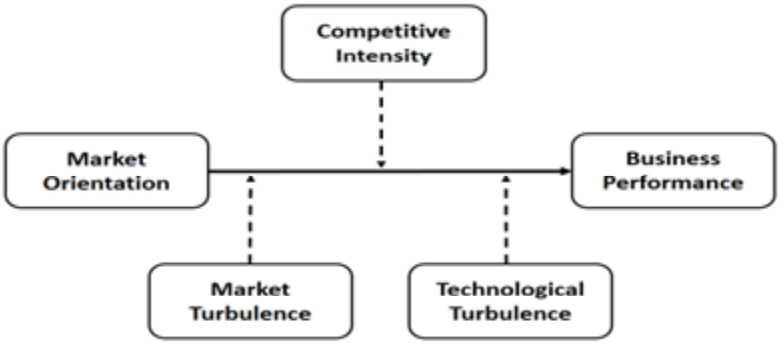
Most firms are ill-prepared to deal with and succeed in a turbulent environment. When turbulence hits such an ill-prepared firm, chaos will result, and vulnerabilities will be exposed. When market turbulence is high, customers' needs change quite rapidly forcing firms to consider modifying their products and services continually so as to satisfy the changing preferences of customers. When market turbulence is high, market share of the firm may fluctuate wildly and may decline in absence of adequate response. When technological turbulence is high and the firm fails to keep pace with technological changes, thenit may not survive.

According to Lantz (2018), when personal turbulence is coupled with business challenges, the stress can be overwhelming. It can destroy our confidence. It makes us doubt ourselves, questions our abilities or compels us to assume the worst.

According to Drucker (2004), turbulence is a time of opportunity for leaders to understand, accept and exploit the new realities. Opportunity occurs when a firm is responsive, robust and resilient, and has transformed or prepared its units and business models to manage turbulence and chaos. Such firms maytap the opportunity by taking away competitors' business, or even acquiring vulnerable competitors at bargain prices.

According to Kipley, Lewisand Jewe (2012), economic impact of turbulence on the firm arises as a result of the following factors: speed with which the chaotic events occur over a time period,time taken/ delay in response to the events,level of capabilities of the firm used in response to the events, and the adequacy of the capacity for effective spending of the strategic budget.

Figure 3: Market Orientation and Business Performance



Source: Andotra, N., and Gupta, R. (2016). Impact of environmental turbulence on market orientation–business performance relationship in SSIs.

Kohli and Jaworski (1990) identified competitive intensity, market turbulence, technological turbulence and general economy as potential moderators of market orientation–business performance relationship. Andotra and Gupta (2016) proposed following framework for showing the moderating impact of environmental turbulence on market orientation–business performance relationship (Figure 3):

OBJECTIVES OF THE STUDY

The objectives of the study are as follows:

- To study the sources and impacts of turbulence
- To study the issues andchallenges arising in managing turbulence
- To examine ways and strategies for managing turbulence

RESEARCH METHODOLOGY

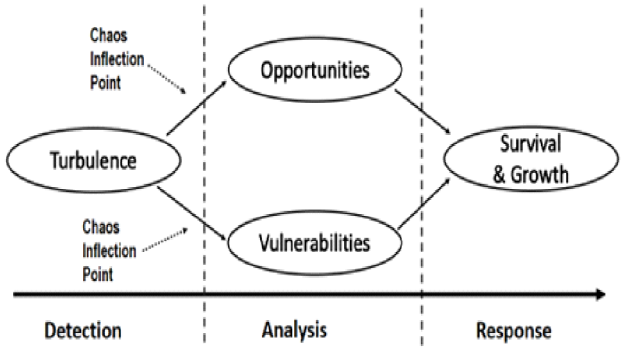
The study is qualitative in nature. It is based on analysis of existing articles, papers and case studies relating to various dimensions of turbulence. The study also covers the case of Indian telecom sector which is witnessing turbulence during last one and a half years beginning September 2016. The case provides insights into various strategies pursued by the telcos for handling turbulence. Secondary data has been collected from various journals, magazines, books, websites and other online resources.

ISSUES AND CHALLENGES IN MANAGING TURBULENCE

As discussed, turbulence creates two major impacts namely: opportunities and vulnerabilities. Its management calls for proper detection, analysing its impacts, and taking appropriate response measures to ensure survival and growth (Figure 4).

Usually there is a misconception that there is one prescription for success in all types of environments. However different environments call for different corporate

Figure 4: Dynamics of Turbulence



Source: Caslione, J. A., and Kotler, P. (2009). Chaotics: Leading, managing and marketing in the age of turbulence.

responses. According to Ansoff & McDonnell (1990), dealing with environmental turbulence requires three things: understanding level of turbulence, strategical capability to respond, and organizational capability to renew. The first difficulty arises in ascertaining the level of turbulence. Business environment involves five turbulence levels, ranging from placid and predictable to highly changeable and unpredictable. If wrong assessment is made, then entire action plan may fail. Wrong assessment leads to 'strategic myopia'. Next difficulty arises in understanding evolving impacts of business turbulence which is highly unpredictable. For each level of turbulence, a different behavior is needed for optimizing organizationalperformance

and profitability. Mostly organizational strategies are of basic level, like stable, reactive and anticipatory strategies, which may be inadequate. This leads to 'strategy gap'. Mostly organizational capabilities are at basic level, like custodial, production and marketing oriented, and may not be adequate. This results in 'capability gap'.

The increased uncertainty arising from turbulent environment means that planning for the future has become more difficult. The situation calls for more and better planning.

Generally fixation of the mind-set of the management is on day-to-day activities pertaining to existing products and competition. Further, most of the times, managements pursue conservative and risk avoidance approach in designing and developing business strategies. Business leaders usually pursue traditional *two broad strategies*—one for up markets and the other for down markets—and continuously fine-tune their strategies, or even discard them based on situation. The difficulty arises when during stretches of normality, their strategies begin to settle down, get optimized and become entrenched. Such relative complacency leaves them unprepared to face turbulence, when it eventually strikes. According to Drucker (2004), in times of turbulence, the greatest danger is to act with yesterday's logic.

A critical element in strategic designis the capability of top management to have an acute knowledge of the complexity of an organization's environment, novelty of the challenges, rapidity of change, and degree of future visibility (Moussetis, 2011). Sometimes leaders are not able to recognize fully the different operating spaces for decision making. Leaders should be ready to operate in many operating spaces (Stacey, 1996).

According to Kipley, Lewisand Jewe (2012), there could be following delaysin response: systems delay- caused by the time expended in observing, interpreting, collating, and transmitting information on the event to the decision makers; verification delay-caused by the managements for seeking assurance that the event is real, probable, and valid and that an immediate response action by the firm is unavoidable; political delay – caused by the managers; and unfamiliarity delay – usually found in a chaotic event.

During turbulence, there is massive influx of discontinuous, novel, often incongruent information, combined with limited time and substantial consequences. This usually produces conditions ripe for 'bounded rationality', in which it becomes difficult for management to make cognitive &timely decisions, and any decision made is one of 'satisficing'. Management's challenge therefore is to maintain a sense of equilibrium, to develop a good environmental scanning system with the resources available, and designing the organization to become flexible in order to be adaptable to change (Kipley, Lewisand Jewe, 2012).

According to Garrett (2018), the unknown unknowns events (which may create high turbulence) are the most difficult to manage. These are sometimes termed as 'black swan events'. Taleb (2010)suggested'Black Swan' theory to explainchallenges of future events as follows:

- the huge impact of unpredictable, irregular and chaotic events that are outside normal experiences and without historical precedent
- the non-computability of the effect of these events because there is no data on which to base calculations
- the psychological bias that blinds us to the possibility and impact of such events. We tend to assume that things will continue in a predictable way.

Turbulence calls for change in business strategies which may be met with resistance to change due a variety of reasons, like, strategic myopia, systemic resistance, managerial resistance etc. Thus a variety of issues and challenges arise in detecting, analysing and responding to turbulence.

Managing Environmental Turbulence

In addition to the everyday challenges of dealing with existing competitive arena, as well as managing the specific stage of the business cycle, business leaders also need to recognize that a stream of disturbances is challenging their business planning, and they need to adjust their strategies and actions appropriately.

There is a need for business leaders and their organizations to develop a new mind-set - to take into account intermittent, unpredictable periods of disturbance - that enables them to thrive during turbulence.

In order to strike balance in the strategic and operational components, business leaders need to look at both the external and internal environments, and align theirstrategic positions and actions to achieve good results. Appropriate analysis and interpretation of the organization's external environment is pivotal to firm's strategic success in the face of turbulence.

In a survey conducted by Economist Intelligence Unit in 2009 and sponsored by EMC, organisational agility was found to behighly critical for business success in today's turbulent environment. Rapid decision-making and execution are not only important, but are also essential to a firm's competitive standing. Itis also linked to profitable growth, as agile firms are found to grow revenue faster and generate higher profits than non-agile companies. Organizational agility can be developed through: flexible systems and structures, strong external intelligence systems, networking with customers and suppliers, effective decision making, clarity of vision and mission, goal congruence, supportive technological systems, optimisation of core processes, minimisation of information silos, nurturing internal and external collaboration, integrating and automating fundamental knowledge-sharing processes etc.

The firm requires flexible systems and structures to respond quickly and adequately to remain competitive. Business leaders and companiesneed to implementnew systems to spot turbulence, install new strategic behaviors and business models in their firms to minimize or pre-empt any ill effects when unanticipated turbulence strikes.

For managing high turbulence, first of all,organization needs to ascertain level/ type of turbulence; then it needs to pursue situation-based higher level entrepreneurial and creative strategies. Organization needs to develop and possess higher level capabilities of strategic and flexible in nature so as to cope with high turbulence. The firms need to pursue dynamic change management strategies to cope with impacts of turbulence as it unfolds.

There is need to pursue an alert and prudent approach that protects business enterprises from the effects of disruptive forces in times of turbulence, and still advances their interests. According to Caslione and Kotler (2009), organizations can pursue t*he 'Chaotics Management System'* - a system and a set of strategic guidelines. The firms can pursue eight (8) key components of the*system as follows*: development of an early warning system, construction of key scenarios and strategies, prioritization of key scenarios and selection of strategies, implementation of *chaotics* management strategic behaviors, implementation of *chaotics* marketing strategic behaviors, expansion of the stakeholder base, flattening of the organization, and shortening strategic planning intervals and developing multiple execution scenarios.

According to Gleeson (2018), following courses of action may help during turbulence: stay abreast of economic indicators, revisit your business plan, review current projects and plans, communicate effectively, consider outsourcing some activities, assess exposure to known risks and dependencies,consider different scenarios, continue to innovate,do not assume that cost cutting is a panacea to all problems, andkeep an eye on the cash flows.

According to Ansoff and Macdonell (1990), organizations can pursue 'Real Time Strategic Management System'for handing turbulence as follows: application of strategic diagnosis

to assess the organization's readiness to respond and succeed; priority attention to ensuring the appropriate mind-set of key managers and the appropriate culture; anticipation of encountering resistance to change, accompanied by early steps to convert the resistance into acceptance and support of change;risk estimates assessment surrounding each major strategic decision; designing the strategic planning and positioning of the organization; introduction of the real-time strategic control mechanism; and,revision mechanism for the organization's current strategy, when it does not work any longer.

The challenges of turbulent times can be met by employing an appropriate blend of the leadership and management. Leaders can take following steps for handling turbulence: choose and decide wisely about action or inaction,make teamwork a priority,hold planning conversations to make good plans,ensure that the plan of action is well understood, plan obsolescence of the current products and services, create a strategy for investing and nurturing people resources, learn from success so as to repeat it, stretch the people and team out of the comfort zone, confirm alignment in actions, and, get comfortable with silence.

According to Nair (2012), following practices can be used fordealing with turbulence: ensure two way & good communication between all stakeholders; hire the right media to convey the right message to the right audience; leaders need to remain positive & engaged, and should involve the team in the solution-finding process; leaders must be sensitive to human aspects; leaders need to lead by setting example; leaders need to keep bad habits like coercion, threatening others, micro management at bay; and, leaders need to exercise strong decision-making skills.

Garrett (2018) suggests that firms need to possess high flexibility for coping with turbulence. The firms can use sensitivity analysis, scenario planning and decision trees for studying its impacts and planning new business strategies.

According to Kipley, Lewisand Jewe (2012), managements can implement 'Strategic Surprise System' as follows: establishing an emergency communication network, repartitioning responsibilities of top management into distinct groups, activation of surprise task force, formulation of strategic response bysenior management, and testing networks under non-crisis conditions.

Thus by taking a variety of steps and strategies, business firms can cope with organizational turbulence. Firstly, there should be proper diagnosis of level/ type of turbulence and its evolving impacts, followed by usage of matching strategies and organizational capabilities.

THE CASE OF INDIAN TELECOM SECTOR

India is currently the world's second-largest telecommunications market with a subscriber base of 1.05 billion. Indian mobile sector is growing rapidly and contributes substantially to India's GDP. Till the year 2015, telecom sector had a somewhat stable market structure with 8 to 9 players.

Beginning September 2016, the telecom sector is undergoing turbulence when Reliance Jio launched its mobile services with Jio Welcome Offercarrying a lifetime of free voice calls and 3 months of free data. It entered the market with a 'Business Model Innovation (BMI)' through better value proposition and different operating model. The old telcos (Airtel, Vodafone, and Idea etc.) are alleged to have tried to disturb the Jio's entry by denying it 'point of connect' to their existing telecom networks, for which penalties/ fines were imposed on old telcos by TRAI.

Jio secured 100 million subscribers in a record time of 170 days of its launch. Jio's entry led to major technological change, as it promoted usage of 4G handsets and internet. As a result, India's global ranking rose to number 2 in terms of internet users by the end of 2016.

Though Jio started thebusiness under the hope that it will capture large number of subscribers

within short span of time; its premise did not fully materialize and it had to extend freebies to March –end 2017. The old telcos seemed to have underestimated the time duration of freebies. They seemed to be of the opinion that freebies will be withdrawn in a short duration and thus were somewhat slow in responding to evolving situation through matching price cuts. The old telcos moved applications before TRAI for restraining Jio for its continuation of freebies and alleged predatory pricing; however, such moves were not successful. Jio also seems to have been caught in the spiral of turbulence, it has created. Jio further extended the freebies to June-end 2017. Jio is said to have continued with its freebies recklessly due to alleged political support.

Annual Report 2016-17 of Bharti Airtel states that India witnessed unprecedented market disruption following the entry of an extremely well-capitalised and aggressive new operator, and claims that Airtel navigated the challenge with a well thought out strategic action plan, and with sheer resilience. Annual Report 2016-17 of Idea Cellular describes entry of Jio as 'Period of Telecom Discontinuity', permanently changing mobility business parameters, and projected a decline of 2% for telecom sector in FY 2016-17, and recovery in FY 2017-18. Annual Report 2016-17 of Reliance Industries states that Jio has led the digital transformation of India by providing data at prices that are affordable to all Indians.

Cost and pricing pressures, declining profitability, mounting debt (around Rs.5 Lakh Crores) and the need to stay financially flexible to face competition are forcing telcos to go for consolidations, mergers and acquisitions so as to harness operational and financial synergies.

Bharti Airtel with around 400 million subscribers, has been on acquisition and merger spree. In February 2017, Airtel took over Telenor India alongwith its tower lease arrangements, networks and IT infrastructure, its spectrum liabilities,and around 700-800 full-time employees. In October 2017, Airtelentered into an agreement to acquire and merge the consumer mobile business of TTSL and TTML (Tata Group) comprising 4 crore customers along with its 180 MHz of mobile spectrum spread across 850 MHz, 1800 MHz and 2100 MHz bands.

Vodafone and Idea are also in the process of merging their businesses, which together have more than 40 crore customers and 2.73 lakh sites. After the merger, the combined entity will have around 35 percent market share. However, some job losses may occur, as existing duplicate portfolios and profiles may get axed.

Anil Ambani led RComs and its affiliates have exited the industry and signed an agreement to sell their wireless assets to Jio, and subsidiary RBTV to Veecon Media and Television Ltd. Aircel and its two units have filed for bankruptcy in the National Company Law Tribunal. Subsequently, a tug-of-war took place between Bharti Airtel and Vodafone over porting in Aircel customers.

Beginning July 2017, when Jio tried to convert free subscribers into paid subscribers, it was forced to offer heavily discounted rates to retain customers. In the meanwhile inter-connect charges were cut down to 6 paise per minute by TRAI, which suited Jio. The regulatory unpredictability on the part of TRAI further compounded the gravity of situation against old telcos.

As Jio continued with its heavily discounted offers, old telcos tried to match their prices. Jio moved an application to TRAI alleging predatory pricing on the part of old telcos, and TRAI decided the case against old telcos. TRAI mandated a new formula to identify predatory pricing and changed the definition of significant market player (SMP), giving pricing flexibility only to operators with less than 30% of the market's subscribers or revenue. Thus there is complete reversal of the cycle. As of date, players can make counter offer of matching prices.

During January 2018, Jio effectively lowered its tariffs by 40-50 per cent by, either offering more data at the same price or lowering the tariff. It also introduced a new plan for Rs 98

that offers unlimited voice and 2GB data per month for 28 days.The plan is meant for wooing existing 700 mn 2G/ feature phone users. According to estimates by Morgan Stanley, about half the revenues of the old telcos are exposed to feature phone users. Jio is speedily launching 4G services across the country, expected to be completed by March 2018. Thus another phase of turbulence is knocking at the door of telecom sector.

Ongoing turbulence in the telecom sector has led to massive job losses of more than 1,00,000 nos. during the period 2016-18. Old players have stopped fresh hiring to trim further job losses.Salary hikes in the telecom sector have been muted as compared to other sectors. About two-third employees are reported to have got annual salary hike of 7 per cent, while almost one-third employees received less than 5 per cent hike.Many private retail distributor outlets associated with telcos have also lost their business as few telcos exited the sector, and there was more direct selling by telcos.

Turbulence and severe competition are denting financial health of the telecom sector. The Table 2 presents details of revenues and PBDITA of select players in the telecom sector in recent quarters.

Table 2: Quarterly Financial Results of Select Companies

Particulars	Bharti Airtel		Idea Cellular		Reliance Jio Infocomm	
	Dec '17	Mar '18	Dec '17	Mar '18	Dec '17	Mar '18
Total Income (Rs. in Crores)	12767.6	12520.9	6413	6261.7	6879	8404
PBDITA	4304.9	3433.7	1132	1577.5	2628	2694
PAT	64.3	-760.2	-1428.2	-1192.8	504	510
Subscriber Base (Nos. in Millions)	394.243	413.822	188.5	207.7	160.1	186.6

Revenues and profitability of old players have declined for the quarter ending Dec 2017 and Mar 2018. Bharti Airtel reported quarterly losses from its Indian operations for the first time in its history. As a whole, the telecom sector's revenue declined by about six percent quarter-on-quarter basis in March 2018. Telecom sector's revenue is expected to decline in fiscal year 2018, too, by about six percent. During the turbulence, old telcos are facing two types of losses: losses from affected operations, and costs of arresting the loss.

Though Jio reported rising revenues and profits, some allege it as a case of window-dressing done by RIL through - writing off initial expenses in FY 2016-17, charging lower depreciation on assets, and lower interest cost etc. RIL is alleged to be presenting rosy picture as it is likely to launch an IPO for Jio around beginning of 2019. Thus Jio also seems to be caught in the spiral of turbulence, it has created.

Ultimately, the industry is likely to be left with 4 or 5 major telcos, assuming that the mergers are completed.Ongoing turbulence is likely to eventually benefit the consumers, as prices are expected to remain low during short- to medium-term, and services will continue to be improved. In the long run, current prices do not appear to be sustainable and should rise.

CONCLUSION

Environmental turbulence has become a regular phenomenon in this era of new normality. Degree and magnitude of turbulence may vary from low to high. Ansoff has suggested 5 levels of turbulence. For managing turbulence, firstly there should be proper diagnosis of level/ type of turbulence and its evolving impacts, followed by usage of matching strategies and organizational capabilities. A variety of issues and challenges arise in detecting, analysing and responding to turbulence.Depending upon the response of the

firm, its business fortunes and survival can go in either direction, upward as well as downward.

Indian telecom industry is facing 4th level of turbulence (Ansoff) since September 2016, due to 'business model innovation' driven market turbulence unleashed by Jio, dynamic and intense competition, rapid technological change, and the unpredictable regulatory environment. Turbulence in the telecom sector has brought forth two major impacts: vulnerabilities and opportunities. While weaker companies like RCom, Aircel and Tata Tele are exiting the sector; stronger companies like Jio, Airtel, Vodafone, Idea etc. are consolidating their positions through mergers and acquisitions. Turbulence and severe competition are denting financial health of the telecom sector. There appears to be some delay in response of old telcos to evolving impacts of turbulence. Old telcos are resorting to cost cutting through mergers and consolidations, and have stopped fresh hiring. Jio also appears to be struggling to keep itself out of spiral of turbulence. The situation is likely to continue during FY 2018-19 and finally four or five major telcos are expected to continue to operate in the market. In the long run, current prices do not appear to be sustainable and should rise.

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