PERSPECTIVES

presents emerging issues and ideas that call for action or rethinking by managers, administrators, and policy makers in organizations

Innovation through Intrapreneurship: The Road Less Travelled

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Executive Summary

The relentless pressures of competition stemming from globalization, technological changes, etc., today are increasingly buffeting organizations. One of the pathways for companies to weather these storms is through unleashing the entrepreneurial spirit latent in its employees enabling these employees to carve out new paths, initiate new ventures, defy the *status quo* in their organizations, and break fresh ground. There is an increasing body of knowledge relating to unleashing entrepreneurial energies in large organizations referred to as 'corporate entrepreneurship' or 'intrapreneurship.' Intrapreneurship is a major driver for organizational renewal or 'reinvention.'

This article seeks to understand the intrapreneurial mindset as opposed to the 'employee' mindset. It is inextricably connected with leadership since it involves mobilizing teams of people towards a cause much greater than the individuals involved, often in the face of significant resistance from *status quo* preserving forces within and outside the organization.

Intrapreneurship at any level (individual, group or organization) fundamentally involves taking ownership, i.e., operating with an entrepreneurial mindset. In the corporate context, since the person leading the reinvention is not an autonomous entrepreneur, he/she is more appropriately referred to as an 'intrapreneur.' It is very unlikely that reinvention at any level can occur without this basic transformation of perspective from 'employee' to 'psychological owner' or intrapreneur. Intrapreneuring is not a path that is chosen by the vast majority of people in any profession since this path involves a lot more of the person than would be the case for a person operating with an 'employee mindset.' However, the reason it is important is that it is challenging, fulfilling, personally and professionally rewarding, and is urgently required by corporations—both big and small—the world over to thrive meaningfully in today's uncertain times.

While the context in which this manifestation of entrepreneurial behaviour is enacted may vary (government, public sector, private sector, NGO, etc.), the fundamental fibre of the person who chooses this path is essentially similar. This article presents three interesting case studies from Tata Steel, a company that has sought to create an entrepreneurial climate in the organization over the last several years. Two of these relate to crashing project time and cost lines to create international records in the face of international technical collaborators affirming that this would not be possible in India. The third intrapreneurial episode relates to turning around a run-down manufacturing facility in the company to produce spectacular results. In the process, the authors have:

- drawn generic lessons from each of these case studies
- presented the results of interviews with 30 practising managers on the facilitators and inhibitors for creating an intrapreneurial climate in large organizations
- highlighted the perspectives of a few senior managers from the Indian IT industry on this very important source of innovation in large organizations
- tied together the three intrapreneurial episodes presented in this paper by attempting to understand the commonalities among the intrapreneurs.

This article would be beneficial to Indian companies seeking to create an entrepreneurial climate and to professionals in these companies to motivate them to look at their work lives differently and to enable them to redefine their roles in their organizations. \checkmark

KEY WORDS

Corporate Entrepreneurship

Intrapreneurship

Facilitators and Inhibitors of Innovation

Tata Steel

Corporate Regeneration

Here's to the crazy ones. The misfits. The rebels. The troublemakers. The round pegs in the square holes. The ones who see things differently...you can praise them, disagree with them, quote them, disbelieve them, glorify or vilify them. About the only thing you can't do is ignore them. Because they change things. They invent. They imagine. They heal. They explore. They create. They inspire. They push the human race forward. While some see them as the crazy ones, we see genius. Because, the people, who are crazy enough to think they can change the world, are the ones who do.

> —"Here's to the Crazy Ones," The Apple Creed, www.apple.com

uch has been written in management literature about innovation in general and about corporate entrepreneurship (intrapreneurship) as a potent tool for delivering innovation in particular (Pinchot, 1985; Hamel, 2002). Intrapreneurial innovation can be incremental or radical. The arena for intrapreneurial innovation could be an existing busi-

ness, and, at times, could even result in a totally new business being created within the organization. Sharma and Chrisman (1999) define corporate entrepreneurship as "the process whereby an individual or a group of individuals in association with an existing organization create a new organization or instigate renewal or innovation within that organization." Covin and Miles (1999) go a step further by stating that corporate entrepreneurship necessarily implies the presence of innovation although there is more to the meaning of the concept than just innovation. Stopford and Baden-Fuller (1990) describe corporate entrepreneurship as 'rejuvenation' within an existing organization.

Intrapreneurism enables employees of an organization to unleash their passion that often results in generating new avenues for business growth or alternately provides radically different ways of doing existing business. Every company requires new ideas to survive and grow profitably and, hence, it has to find ways to tap the entrepreneurial potential inherent in its employees.

INTRAPRENEURSHIP AS A PATHWAY TO PERVASIVE INNOVATION

Many scholars have highlighted the importance of pervasive innovation across the organization (as opposed to centralized innovation by specifically created groups/teams) as one of the important strategies for long-term marketplace success, especially in large organizations. However, most large organizations experience a severe gap between intent and reality in this regard. These issues have been extensively discussed in literature (Pinchot, 1985; Hamel, 2002; Kaplan and Norton, 2001; Quinn, 1985).

There is a strong relationship between innovation and employees taking on psychological ownership of the company's growth thereby manifesting entrepreneurial behaviour. Since this is done within the framework of a large organization rather than as an autonomous entrepreneur, it is more appropriate to look at these innovators as corporate entrepreneurs or intrapreneurs (Pinchot, 1985; Hamel, 2002; Stopford and Baden-Faller, 1990; Kaplan and Norton, 2001; Quinn, 1985).

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> rating new avenues for business growth or alternately provides radically different ways of doing existing business. Every company requires new ideas to survive and grow profitably and, hence, it has to find ways to tap the entrepreneurial potential inherent in its employees.

> Scholars have recognized that the top management has a significant role in creating an atmosphere wherein employees are encouraged to experiment. According to them, even if the top management wants to create an innovative and intrapreneurial organization, there is a need for intrapreneurs within the system who could execute the process of intrapreneurial innovation. A comprehensive model of intra-

Various other terminologies are sometimes used interchangeably to mean corporate entrepreneurship. These include strategic renewal (Guth and Ginsberg, 1990), intrapreneuring (Pinchot, 1985), and internal entrepreneurship (Schollhammer, 1982). preneurship is presented by Hamel (2002) where, apart from the culture of innovation in the organization that the top management is responsible for creating, there are three other major components, viz., innovation activism, that is, the role played by autonomous corporate entrepreneurs, innovation as a capability whereby people in the organization are trained for innovation, and, finally, innovation as a process which ensures that ideas are progressively ramped up from imagination to experimentation, assessment, scale-up, and, finally, reality. The implicit mantra in intrapreneurial innovation is 'make a little, sell a little,' 'low risk experimentation,' and 'freedom to fail.' Nowhere is this more glaringly visible than in 3M, the US-based company that has built its fortunes over the decades by harnessing the power of its corporate entrepreneurs.

While the phenomenon of corporate entrepreneurship as a formally recognized avenue for corporate regeneration and growth is relatively new in India, there are many examples of this phenomenon occurring in companies across the country although much of this happens in isolated pockets and has not been welldocumented. In this article, we provide some additional

understanding of this phenomenon, particularly in the Indian context, and draw some lessons from three 'intrapreneuring episodes' in one company (Tata Steel Ltd., Jamshedpur) which is attempting to accelerate its growth by harnessing this potent force. In addition, this article presents insights garnered from interviews with 30 managers from different companies as well as their responses to a structured questionnaire. This paper additionally presents relevant insights on the subject based on interviews conducted with the CEOs of over ten large Indian IT companies.

The purpose of the article is five-fold:

- to highlight the importance of intrapreneurial innovation as a potent process for corporate renewal
- to present through examples from the Indian context what intrapreneurial innovation entails and what it can deliver to the organization
- to demonstrate that while this phenomenon may not be much show-cased or written about for various reasons (confidentiality, perceived sensitivity about the possible negative effect of show-casing intrapreneurs on the morale of other employees of the company who may also be working very hard, etc.),

it is very much a growing phenomenon in India

- to present, through the case studies presented in the article, interviews with 30 managers as well CEOs of ten large IT companies, the facilitators and inhibitors of intrapreneurship in organizations
- to integrate the three intrapreneurial episodes presented in this paper with a view to identifying the commonalities that existed in the three intrapreneurs.

OBJECTIVES OF INNOVATION AND INTRAPRENEURSHIP

Cost reduction and/or improved customer focus tend to be the primary objectives of innovation and intrapreneurship. At the level of an individual intrapreneur, the trigger for innovation could emanate from the desire to challenge oneself beyond the obvious. Intrapreneurs seeking to reinvent a company in order to increase

The implicit mantra in intrapreneurial innovation is 'make a little, sell a little,' 'low risk experimentation,' and 'freedom to fail.' Nowhere is this more glaringly visible than in 3M, the US-based company that has built its fortunes over the decades by harnessing the power of its corporate entrepreneurs. efficiency may do so by removing 'unproductive layers' of bureaucratic hierarchy, harnessing the power of technology, proper delegation of authority and power or find other ways to improve efficiency and effectiveness. Another trigger for intrapreneurs could be the desire to provide more value to the customer through intense customer focus. They may develop innovative means of minimizing inconvenience to the customers that would enable them to become companies that are 'easy to do business with.' Alternately, they may seek to enhance the company's market offerings by providing additional features to its market offer-

ings. Intrapreneurial innovation also occurs when the issue at hand is one of pure survival. Whatever may be the trigger, intrapreneurial innovation serves as the growth engine for the company. It helps the company to expand or deepen its core competencies as can be seen from the three 'intrapreneurial episodes' in the case of Tata Steel, one of India's most respected companies, and among the world's lowest cost and most efficient steel manufacturers. These three episodes relating to the intrapreneurial activism in the company are only illustrative and are by no means exhaustive of the intrapreneurial episodes in the company.

THREE INTRAPRENEURIAL EPISODES AT TATA STEEL

Episode 1: Implementation of Cold Rolling Mill

In line with its quest for adding capability and capacity for producing higher value products, Tata Steel embarked on several new projects over the last several years. Setting up the Cold Rolling Mill (CRM) to manufacture high value 'cold rolled' products for use in the automobile and white goods industry from hot rolled coils was one such important project for the company. The realistic estimates put the project cost at Rs. 25 billion and the project completion within 36 months.

The board of the company approved the project based on these estimates. The company did not have a very strong in-house project implementation team at the time when the project was initially being conceived. This may have prompted the top management to seek out and

induct a project manager with excellent track record from outside the organization. The search resulted in the induction of Mr. R P Singh who had earlier occupied several senior project management positions in various public sector steel plants. Accordingly, he joined the company as part of the senior management with a special focus on new projects. In 1997, he was entrusted with the responsibility of heading the CRM

project implementation. After taking stock of other worldwide CRM implementations, Singh announced his intention to create a world record in terms of both time and cost in the implementation of the CRM complex. When he articulated his bold vision to the project team that he headed (which included about 60 Tata Steel engineers) as well as many contractor companies' engineers, he was greeted with a stony silence that stemmed from skepticism and cynicism. They regarded him as a new entrant whose enthusiasm would taper off once reality set in. Many large foreign contractor companies advised Singh: "You are an Indian and you want to create world records in project implementation in India...Don't even think of it!"

While the initial reactions of the project team ranged from polite amusement to outright disagreement, by July 1998, the 400-strong CRM team (including contractor firms' and supplier firms' engineers) was solidly behind Singh. The mindset in the group went through many changes starting from 'It is not possible,' to 'It is very difficult,' followed by 'It can be done,' 'It is being done,' and, finally, 'It has been accomplished!' This was the result of a number of initiatives by Singh including creating a new way of thinking; changing work habits; comprehensive research on the subject, situation, requirement, and resources; providing a route map to team members; developing stretch targets for individuals in the team through a process of patient dialogue with team members; meticulous planning; close review and monitoring; and the creation of a system and culture where there is little room for failure. Most importantly, he succeeded in creating a pervasive sense of 'ownership' and 'intrapreneurship' among the team members energized by a powerful collective vision of 'creating a world record in project implementation of the CRM.' By June 1999, Tata Steel completed the project successfully under

> Singh's leadership in a world record time of 26½ months and at the lowest project cost of Rs. 16 billion while ensuring world-class quality. That the steel industry was in a downturn at that time contributed to achieving the lowest project cost. However, there can be no doubt that the intrapreneurial mindset of the entire project team, led by Singh, was instrumental in this stellar achievement. In the process, the company

had managed to beat all earlier records set by several other giants in the industry including Bethlehem Steel of USA, Posco of Korea, Siam United Steel of Thailand, and Baoshan of China in implementing similar CRM projects.

In the process of implementation, Singh succeeded in changing the mindset of the 400-strong CRM project team members. He instilled in them a 'can do' spirit which gradually led to the melting away of a defeatist attitude. Singh would have been a good project manager if he had delivered the project within the board-approved Rs. 25 billion and 36 months implementation time. Instead, driven by a personal vision of 'creating a world record in CRM project implementation both in terms of cost and implementation time,' as well as a personal point of view that 'Indian project managers are second to none,' he delivered the project within Rs. 16 billion and 26½ months, figures that initially seemed

INNOVATION THROUGH INTRAPRENEURSHIP: THE ROAD LESS TRAVELLED

The mindset in the group went through many changes starting from 'It is not possible,' to 'It is very difficult,' followed by 'It can be done,' 'It is being done,' and, finally, 'It has been accomplished!' unachievable to most of the agencies involved. This is what qualifies Singh to be labelled as a 'corporate entrepreneur.' While Singh took on the role of a corporate entrepreneur and completed the project in a record time and at a record project cost, he had the total support and cooperation of the top management of the company comprising of Mr. B Muthuraman (the current Managing Director), Dr. T Mukherjee (the current Deputy Managing Director), and Dr. J J Irani, the Managing Director at that time.

It was coincidental that at the time the CRM project

was being implemented, Tata Steel was in the process of reinventing itself. Consequent to the liberalization of the Indian economy, a process that commenced from the early nineties, the top management had realized that due to a variety of legacy issues (such as antiquated plant, gross overstaffing, a mindset that was tuned to a protectionist economy, etc.), as a company, it either had to reinvent itself or perish. It chose the former. It took the liberalization of the Indian economy as a challenge. Although the company was still not ready to face the agile competitors from overseas at the time that the economic liberalization of the country was initiated, concerted steps spanning over a decade were taken by it to make it a fighting fit organi-

While a competitive open market may partly be the reason for attempts at innovation by intrapreneurs, there are many examples of companies where even with the threat of extinction of the company looming large, there is little intrapreneurial activity in the company and many companies choose to be *status quo* preservers and gradually undergo a process called 'ossification.'

panies choose to be *status quo* preservers and gradually undergo a process that Piramal, Bartlett and Ghoshal (2000) called 'ossification.'

From the experience of implementing the CRM project at Tata Steel, we see that the ongoing reinvention processes in the company coupled with the induction of a top manager for the project — Mr. R P Singh — unleashed the intrapreneurial forces in the project management team. Singh came in with a long legacy of working in the public sector. However, sometime after he joined Tata Steel, he set for himself the personal

challenge of beating world records in project implementation. By his own admission, he had never in his earlier project management episodes adopted many of the practices and processes that he instituted in the CRM project. Apart from Singh who staked his reputation and credibility in committing to such aggressive implementation plans, the top management of the company also took significant risks in betting on Singh to deliver and allowing him to shoot for his seemingly outrageous targets. While the possibility of failure to achieve these targets was a reality all through the implementation phase, this did not deter Singh and the company's top management from attempting what seemed impossible to most others.

zation to face the new environment. It would be interesting to ask whether Singh would have succeeded in the absence of the pervasive sense of urgency that prevailed in the company resulting from the various other reinvention processes already under way in the company at that time.

Lessons from Episode 1

What does it take to make the employees in a company take on intrapreneurial roles often at considerable personal risk? What are the situations within the company which ensure that intrapreneurship is encouraged? While a competitive open market may partly be the reason for attempts at innovation by intrapreneurs, there are many examples of companies where even with the threat of extinction of the company looming large, there is little intrapreneurial activity in the company and many com-

Episode 2: Revamping the Blast Furnace-F

Soon after the completion of the CRM project, Singh was entrusted with the responsibility of revamping Blast Furnace-F. The old furnace had outlived its utility and had to be totally upgraded. Reputed foreign project consulting firms came up with a 'best estimate' of 210 days and a cost of Rs. 5 billion. The Blast Furnace is a massive set of equipment that forms the heart of any integrated steel plant. There are thousands of jobs to be executed in revamping a Blast Furnace involving interactions among dozens of agencies. The work involved can be truly described as 'humongous.' The impact of every day delay in executing such a project is several tens of millions of Rupees for the company. This was not challenging enough for Singh and his team who had already tasted success in the CRM project implementation. Based on Singh's recommendation, the board of the company approved a shut-down period of 155 days. After careful evaluation of all the factors, the contractual shut-down period was fixed at 150 days. However, Singh felt that his team could surely do better than this and called for a meeting of all the experts including the key managers of his team, technical collaborators, and lead project contractors. After a detailed study, this team felt that the shut-down period of 130 days could be achieved with careful planning. Singh believed that the team could do better than this. After further meticulous plan-

ning, including day-to-day and hourto-hour planning, the team came up with a stretch target of 110 days for the completion of the project and a project cost of Rs. 2.1 billion.

The foreign consultants felt that this was not a practical target even by western standards, leave alone for a project that was to be executed in India. People who were familiar with the challenge of the work involved in the revamp of the Blast Furnace-F could not believe that a 150-day plan could be compressed to 110 days. In fact, Mr. Jain, the Ex-Chairman of Steel Authority of India Limited (SAIL), the giant government-owned steel company, had even expressed his doubts to Mr. B Muthuraman. When the project was finally completed in 104 days, Mr. Jain attended the inauguration of the

The spark for the virtuous cycle is inspiration followed by determination, mustering resources, and achievement, resulting in confidence to take on even more ambitious goals in the future. The intrapreneurial leader's role is to ignite the imagination of his team, work with them intensely, enable them to perform and provide support in case they are likely to fail, and show them the way forward.

as well as among the contractors, consultants, and suppliers. Therefore, the stretch that he was trying to create in the target was not met with cynicism that was the earlier situation during the run-in to the CRM project implementation. Singh had earned what Pinchot (1985) termed as 'intra capital' where the intrapreneur earns the right to dream even bigger, have a more daring vision, and works to make them a reality and the organization facilitates the achievement of such expansive dreams. The team members had also tasted success in the CRM project and knew what it meant to be a winner. They were ready to win again and follow where Singh led them.

> After the successful implementation of the CRM and Blast Furnace-F revamp projects, the project management activities at Tata Steel had got into a virtuous cycle as can be seen from the target setting for the next project implementation that soon followed, viz., the revamp of the Blast Furnace-G. This furnace is three times the size of the Blast Furnace-F. The target project completion time for revamp of the Blast Furnace-G was set at 95 days and the project was completed within this target. In the words of Singh, "The spark for the virtuous cycle is inspiration followed by determination, mustering resources, and achievement, resulting in confidence to take on even more ambitious goals in the future. The intrapreneurial leader's

new Blast Furnace. In his talk at the inaugural function, he told the audience that the revamping of Blast Furnace-F would normally have taken six months. He also told the audience that while he thought that Singh had started with a good plan, he was sure that Singh would fail in its execution because it was an impossible schedule. The fact that the project was actually completed in 104 days and at a project cost of Rs. 2.1 billion is a testimony of teamwork, immaculate planning, and Singh's intrapreneurial leadership.

Lessons from Episode 2

Credibility is a key for intrapreneurs. By the time the Blast Furnace–F revamp project was conceived, Singh had already established his reputation in the company role is to ignite the imagination of his team, work with them intensely, enable them to perform and provide support in case they are likely to fail, and show them the way forward." Undoubtedly, the top management support to Singh was vital to make his intrapreneurial vision of creating world records in project implementation at Tata Steel a reality.

Episode 3: Turnaround of Merchant Mill

Sometimes, innovation becomes a necessity for pure survival. When Mr. Nandji Pandey took over as the Chief of Merchant Mill (MM) at Tata Steel in 1997, the worker morale was low, the plant that was over 40 years old was in a run-down condition, and there were other products from the other mills of the company that needed attention of the marketing division. MM was not on the priority list of the company. It had very indifferent performance through most of the nineties.

All through the nineties, the company had embarked on major modernization. All unviable plants, which were essentially old vintage plants, were getting progressively phased out. The company had two Rolling Mills, RM1 and RM2, which supplied feedstock in the form of 75 mm. square billets (long bars with square crosssection) to the various finishing plants in the company including to the MM. MM converted these billets into steel rods for construction. RM2 was too far from MM and it was logistically very difficult to supply billets from RM2 to MM. Besides, being old, it was also in the

process of being shut down. RM1 had to be closed down because it was very old and run-down.

The only other source of billets was the Continuous Caster (CC) that produced billets with a square crosssection in two sizes: 100 mm. (this was to be discontinued shortly) and 127 mm. The foreign collaborators and equipment suppliers who installed MM many years ago were consulted regarding the possibility of using 100 mm. or 127 mm. square billets as raw material for MM. They made it amply clear to the company that the design of MM would not allow the use of such large-sized billets in place of the 75 mm. square

billets for which it was designed without a significant additional investment for revamping the entire plant. The top management of the company justifiably saw no merit in making any further capital investments in a rundown plant like MM. The foreign consultants, therefore, suggested that there was no alternative but to close down the MM and sell off the assets to any willing buyer.

With the intention of selling off the plant, the top management identified a prospective buyer who visited the plant to take stock of the machinery so that the sale could be consummated. As the prospective buyer was being taken around the plant, Pandey informed him (within the hearing range of the shop-floor employees who had gathered around them out of anxiety about their future in the company) that the plant was not for

The objective of innovation in MM was to bring in higher volumes without incurring significant incremental investments. This prompted the top management of the company to comment that the capacity of a plant is only in the minds of the people running them and not on the nameplate of the plant.

sale and that his team would make it profitable. To the workers who had gathered around him by this time out of curiosity to see what the commotion was all about, Pandey told them: "Whether the plant will be sold or not is in your hands. You have the keys to make the plant profitable." Pandey set about motivating his team of officers and workers, encouraging them to come up with their best ideas so that they could run the plant using the larger 100/127 mm. square billets in place of the earlier 75 mm. square billets, without additional capital expenditure. The team came up with several ideas and implemented them systematically without requiring any significant incremental investment. Whatever minor investments were needed for implementing these ideas came from the revenue budget of the mill.

The steps taken included frequent and thorough maintenance, changing the design of the hydraulic pushers to take care of the largesized billets, changing entry and exit guides to the furnace, improving mixing of fuel gas and air in the burners to create better swirling effect, improving the material handling and logistics in the plant, etc. Most important, however, was the change in the mindset of the workforce and inculcating a 'can do' attitude among them, on which Pandey relentlessly worked upon. The average production of the MM plant was in the range of 300 to 500 tonne per day for several years be-

fore Pandey took over as its chief. Owing to the many steps taken by him to motivate his team, the production by December 1997 reached record levels of over 1,300 tonne per day. This was a major turning point for MM. It demonstrated to the people in the mill that with focus, determination, and teamwork, it was possible to make the mill economically vibrant again. In the case of MM, necessity had literally become the mother of reinvention! Pandey had managed to improve the efficiency of both man and machinery. The objective of innovation here was to bring in higher volumes without incurring significant incremental investments. This prompted the top management of the company to comment that the capacity of a plant is only in the minds of the people running them and not on the nameplate of the plant.

Lessons from Episode 3

The key to the successful turnaround of MM was the powerful vision of the intrapreneur — Mr. Nandji Pandey — as well as his ability to mobilize the entire team of 400 dis-spirited workers to rise up to the challenge before them and work towards turning around the plant by working in an entrepreneurial mode. Equally important was the maturity of the top management which gave space to the intrapreneur instead of getting caught up in ego battles like: "We told you to facilitate the sale of the plant to the buyer. Why did you summarily dismiss the potential buyer by telling him that the plant was not for sale?" They were willing to understand the 'Point

of View' (Hamel, 2002) of Pandey the intrapreneur — and provide him the opportunity and latitude to work towards achieving it.

MM has achieved record production levels during the last several years crossing 300,000 tonne per annum in the early 2000s, up from about 95,000 tonne per annum in 1995. It is today a significant contributor to the company's revenues and profits. Pandey, having established his credibility as an intrapreneur par excellence in turning around MM, then took the role of the intrapreneurial turnaround architect of another comatose production facility, the over 70-year old Indian Steel Wire Products Ltd., Jamshedpur. This company was

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the front and even met each one of the 400 people in the MM plant during the first few days of his taking over as its Chief. The sincerity of his approach and his ability to vividly transmit his vision of the plant to each of the workforce and make them take the ownership of this vision were powerful enablers in his intrapreneurial efforts. Whenever there was any significant achievement by anyone in the plant, he made it a point to acknowledge the contribution of the people who made it possible. He would do this by calling for an impromptu meeting on the shop-floor to recognize the contribution. For any record that was broken or bettered, he would ensure that the achievement was genuinely celebrated

> through various means such as distribution of sweets to the entire team. Apart from a direct face-to-face communication with the workforce on every possible occasion, he would also send written messages in his earthy style in the local language (Hindi) to each one of the 400 members of the team. He also innovated by unleashing the 'women power' ---involving the wives of the workers in his vision and calling upon them to provide the emotional support to their husbands in their quest for achieving higher and higher stretch targets. In this manner, the targets became targets not only for the MM team but also for the families (wives and children) of the workforce. He created an atmosphere where win-

earlier closed for over eight years. About two years ago, through a court order, it was transferred to Tata Steel as its wholly-owned subsidiary. Pandey's intrapreneurial efforts have borne fruit in this plant as well and within months of the takeover of the company by Tata Steel, it achieved its rated capacity. The company has since been continually bettering its performance, achieving record production levels.

How did Pandey achieve the transformation of the MM? Some of the initiatives he took are briefly described in the following. Pandey frequently addressed meetings on the shop-floor to celebrate achievements. His manner of speaking, the sincerity, the language, and the choice of analogies were down-to-earth and appealing to the largely semi-educated workforce. He led the battle from ning became an addiction for the team. His intrapreneurial acumen lay in galvanizing people closest to the machines—people who intimately knew the equipment to innovate in many small ways that resulted in the rebirth of the mill.

When the top managers of the company sent messages congratulating him on the progress being made in the plant, he would ensure that individual copies of these messages were given to everyone of his 400-strong team members. He would conduct unscheduled meetings daily on the shop-floor with small groups of employees encouraging them to achieve even greater heights. He could be seen in his best elements on the shop-floor of the plant at any time of the day or night throughout the week. His hands-on approach, which Pinchot (1985) refers to as 'taking end-to-end responsibility,' resulted in his becoming a successful intrapreneur.

FACILITATORS OF INTRAPRENEURSHIP

It is clear from the above episodes that intrapreneurism can manifest itself in any role and function in an organization. No one function or position has the monopoly over intrapreneurial behaviour. We could, thus, have intrapreneurs in technical or non-technical functions; senior, middle or junior management levels; line or staff functions; manufacturing or service related roles; etc. We now discuss the facilitators of intrapreneurship based on our interviews with 30 managers from large companies as well as administering structured questionnaires to them. Some important enablers of intrapreneurial activity in a company are the support of the top management to the intrapreneurs, the freedom to fail, and the ability of the management to condone mistakes and create an atmosphere of learning for them. Intrapreneur-

ial vision on the part of the intrapreneur, the ability to get the intrapreneurial team to own the vision, fostering team work, accepting the brutal reality, taking prompt and proactive actions, and making timely decisions are essential for intrapreneurial success. Resource constraints and time pressure also bring out the best of intrapreneurial innovation. The managers whom we interviewed also felt that the intrapreneur, especially one with a proven track record of intrapreneurial performance, must

be allowed the latitude to operate freely. These include freedom to induct or remove any member of the intrapreneurial team, freedom to select suppliers, etc. This is what Hamel (2002) refers to as an 'open market for talent.' These findings are corroborated by the three Tata Steel episodes discussed earlier.

All the managers interviewed underlined the importance of the top management to create an environment conducive to intrapreneurship. Specifically, the top management must have an open mind. It must be transparent and able to clearly articulate the company's objectives and what it expects from the workforce. It must demonstrate willingness to experiment and change. The management also needs to recognize, mentor, and encourage people who demonstrate intrapreneurial traits. Our interviews also revealed that the top management must 'go easy on the purse strings for pilot endeavours' in order to foster a culture of experimentation and continuous learning. Hamel (2002) refers to these systemic prerequisites for intrapreneurship respectively as 'an open market for capital,' 'an open market for resources,' 'low risk experimentation,' and 'win small, win early, win often.' Recognition of work well done, rewarding innovative ideas, sharing of success stories, and constant reminders to employees of the vision and mission of the company also play a major role in harnessing intrapreneurial energies of the employees.

INHIBITORS TO INTRAPRENEURSHIP

Our research has identified several inhibitors to intrapreneurship. We now discuss these briefly. The top management's inconsistent, intermittent or sporadic enthusiasm or lack of commitment of the top management to the growth of the company as perceived by the

The top management's inconsistent, intermittent or sporadic enthusiasm or lack of commitment of the top management to the growth of the company as perceived by the employees can kill the intrapreneurial spirit in employees. employees can kill the intrapreneurial spirit in employees. This often results in poor follow-up and indifference on the part of the management to intrapreneurial achievements in the organization leading to non-existence or presence of weak reward and recognition mechanisms. This, in turn, can remove the steam from the innovation engine in the company. A high manpower turnover perhaps due to poor human resources policies or a rigid or myopic approach by the top man-

agement can hurt the intrapreneurial process. Some companies simply lack the courage to accept failures and instead penalize employees for failures. While their brochures and slogans declare that the company seeks innovation, their action and words belie this intent creating widespread cynicism. Even an occasional and inadvertent slip in word or action by the top management that signals undermining the spirit of innovation and intrapreneurism in the company is enough to bring the intrapreneurs' enthusiasm to a grinding halt for a long time to come.

The reasons for dissonance in the signalling by the top management can arise for a variety of reasons. These include companies that have an aversion to risk and want to play safe due to ingrained corporate dogmas, limited exposure of the company's leadership, and its inability to see the big picture. The indifference and resistance of influential people in the organization towards an innovative idea can stifle the best-intentioned intrapreneurial designs of a company. This can create havoc in the intrapreneurial process in the company especially in the absence of seasoned intrapreneurs with strong leadership traits and motivational abilities.

THE INDIAN IT INDUSTRY PERSPECTIVE*

Leading captains of the Indian IT industry who were interviewed spoke of the urgent need for innovation within companies. They went on to emphasize the role of the government and the educational system in the country to foster the spirit of innovation and entrepreneurship.

According to Mr. Jerry Rao, Chairman & CEO of MphasiS BPL Limited, Mumbai, "There is no magic bullet that will guarantee the long-term success of any company. While eventually all companies would be

challenged, the task before them is to find ways to continually reinvent themselves through widespread innovation so as to strengthen their position in the marketplace."

According to Mr. Subrahmanyam Vempati, the Vice President and General Manager, Systems Technology and Software Enterprise Systems Group, Hewlett Packard, Bangalore, "Companies in India need to re-skill at all levels in order to meet the challenge of value creation. This re-skilling is in terms of creating a

pervasive culture of innovation in the company." He acknowledges that there are many challenges to make this happen including process-related challenges and mindset changes that Indian companies have to contend with.

Reflecting on the role that the government ought to play in encouraging innovation and growth in the IT sector, Mr. Lakshmi Narayanan, President and CEO of Cognizant Technology Solutions, felt that the government should provide a strong thrust to innovation and incubation. Setting up facilities and infrastructure like STPI while ensuring that they function as crucibles for innovation is a step in this direction.

Mr. Raman Roy, till recently the Chairman and Managing Director of Wipro Spectramind, felt that the starting point for innovation in corporations is innovation in the educational sector in the country. He felt that nothing short of a fundamental retooling in the educational system would be required for India to successfully get its population ready for the emerging global opportunities. This retooling is primarily meant to get people to think, question, inquire, and innovate. He fears that if this is not expeditiously addressed then, "just like our fathers told us that we missed the industrial revolution, the manufacturing revolution, and the textile revolution, we will end up telling our children that we missed the IT revolution as well. The world is not going to wait for us to get our act together."

TOWARDS UNDERSTANDING THE DRIVERS OF INTRAPRENEURIAL BEHAVIOUR

Based on the three intrapreneurial case studies present-

A fundamental retooling in the educational system would be required for India to successfully get its population ready for the emerging global opportunities. This retooling is primarily meant to get people to think, question, inquire, and innovate. ed above, we attempt to understand briefly the commonalities in the mental make-up of the intrapreneurs. In developing such a unified understanding, we have also examined three other case studies that have not been explicitly presented in this article. A common thread running through all these case studies is that in each of them, the intrapreneur demonstrates an extremely strong sense of 'psychological ownership' that is well beyond the call of duty. Moreover, each of them has attempt-

ed to innovate in his/her respective domains of work.

While there are many models that help understand the process of innovation in large organizations (Hamel, 2002), most of them focus on the larger organizational entity rather than the intrapreneur *per se*. Many researchers have studied the optimal organizational conditions that foster the spirit of entrepreneurship in the employees. In the following, we instead try to understand the intrapreneur at a deeper level. What drives an intrapreneur to manifest such an intense sense of ownership in his/her role in the organization? It is more appropriate to view the unification of the three intrapreneurial case studies by understanding the commonalities of the intrapreneurial behaviour as 'work-

^{*}Excerpts from personal interviews with CEOs of ten large Indian IT companies conducted by the authors.

in-progress' needing further research before a formal and validated model can be presented.

Focusing on the intrapreneur, there are factors that are relatively more under his/her control and others that are relatively less under the control of the intrapreneur. We briefly examine these next.

Relatively More Controllable Factors

As observed earlier, what drives every intrapreneur is a clear sense of purpose or mission of his/her life. We see this relentlessly at play in all the case studies on intrapreneurship that we have examined. The intrapreneurs have a long-term vision for their respective organizations, a clear sense of their own life's purpose, and a lucid understanding of the role they must play in their organizations. This is what perhaps provides the extraordinary energy needed to fuel their intrapreneurial

journey, which, by definition, seeks to deliver results well beyond the call of duty.

All the intrapreneurs studied bring to their work an entrepreneurial mindset which is a much more intense form of engagement than operating with an 'employee mindset' (Hamel, 2002). This results in their manifesting strong emotional commitment to their work. This emotional sense of ownership is perhaps what motivates them to come up with outlandish dreams and to execute those dreams. It gives them the courage to 'take on the system' and deliver extraordinary results by working with their intrapreneurial teams who are likewise 'driven' by these intrapreneurs despite the fact

that many others in the organization tend to feel that the goals set by the intrapreneurs are unattainable. It is this 'emotional coalescing' of the individual identity with the daring vision that enables the intrapreneurs to achieve excellence.

Another important prerequisite for effective intrapreneurship is communication with stakeholders. There are many stakeholders who are directly or indirectly involved in every intrapreneurial venture. These include the immediate team members, customers, other employees in the company, suppliers, governmental

agencies, senior management of the company, etc. All these stakeholders need to be effectively managed. A key vehicle for such stakeholder management is effective communication.

Finally, the image of the intrapreneur in the perception of the people who matter to him/her is a key driving force in the intrapreneurial journey. Intrapreneurs do not easily give up. One of the reasons for this tenacity is their dislike to come out of a venture as a loser. To put the same more positively, intrapreneurs are 'addicted to winning.' This is amply demonstrated in the three intrapreneurial case studies described in this article.

Relatively Less Controllable Factors

Our examination of several cases of intrapreneurship suggests that there are several factors that are not under

The intrapreneurs have a long-term vision for their respective organizations, a clear sense of their own life's purpose, and a lucid understanding of the role they must play in their organizations. This is what perhaps provides the extraordinary energy needed to fuel their intrapreneurial journey, which, by definition, seeks to deliver results well beyond the call of duty.

the complete control of the intrapreneur. The first is the life situation of the intrapreneur. For instance, if the person has extreme and excruciating family circumstances such as financial or health-related pressures or has large family obligations to discharge, he/she may be less prone to taking personal risks that an intrapreneurial career entails. The second relates to the preparedness of the person and includes experience, capabilities, etc., of the person seeking to play an intrapreneurial role. A third factor is what may broadly be categorized as 'environment.' The 'environment' for intrapreneurship includes the facilitators of and barriers to intrapreneurship that were presented earlier in this article. These include myriad

issues such as the right environment in the immediate work situation to foster the spirit of intrapreneuring, the right organization, the right leaders including a suitable sponsor (a person of senior management rank who believes and supports the intrapreneur), etc. Much of the research on corporate entrepreneurship addresses this issue of 'environment.' Finally, another factor that may be an important determinant of success on the intrapreneurial journey is the 'past baggage' in the form of 'hardwired' behavioural patterns that are a part of the person seeking to play an intrapreneurial role.

Clearly, there is a need for more research to validate our understanding of what drives an intrapreneur. There are likely to be other factors that are necessary for obtaining a fuller understanding of the intrapreneur's very unique pattern of behaviour. For this reason, our discussion above represents a tentative attempt to discover the 'unity among the diversity of intrapreneurs.' Since more elaborate research is needed to further validate our understanding of the intrapreneur, it is appropriate to consider the ideas relating to a unified understanding of intrapreneurs that we have presented in this article as 'work-in-progress.' What is clear, however, is that understanding the phenomenon of intrapreneurship in general and the intrapreneur in particular has far-reaching implications for management practice. With organizations struggling to increasingly unleash the intrapreneurial energies of their workforce in order to cope with the relentless forces of change and competition, a better understanding of intrapreneurs, who are essentially change agents in their organizations, will help senior management to better manage them and create conditions that facilitate the realization of their intrapreneurial dreams and thereby propel their organizations to new realms of excellence.

CONCLUSIONS

Large companies worldwide are on a journey to create organizational cultures, conditions, and processes that facilitate innovation and enable large numbers of employees to move from an 'employee mindset' to an 'intrapreneur mindset.' Very few companies have actually succeeded in making this transition. The situation is not very different in India. The task is clearly non-trivial and the roadblocks are many resulting in a considerable gap between intent and reality in making this happen.

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World-class companies like Tata Steel recognize that the path to excellence is never-ending, as can be seen from their continually increasing scores on business excellence over the years on the JRDQV model (JRD Tata Quality Value model, which essentially mirrors the Malcolm Baldridge Business Excellence model for companies based in USA).

The steps taken to create an innovative and intrapreneurial organization are the first in the long journey on which any company seeking to succeed in today's turbulent times must continue to persevere. When companies make innovation and encouragement of intrapreneurship a part of their ongoing business agenda, a sense of psychological ownership is created among the employees with regard to their roles and responsibilities and the expectation that each employee is expected to innovate in his/her role is clearly communicated across the organization. This, in turn, ensures proper utilization of a company's most important asset, viz., its people.

In today's context where the source of power is knowledge, harnessing the full potential of the workforce is absolutely vital for a company's success. Profits increase through a new and sustainable value creation logic (Piramal, Bartlett and Ghosal, 2002). This is especially important in the knowledge-driven economy in which we find ourselves today where employee involvement and encouragement of innovation are essential and vital. Sustained efforts at encouraging innovation and its torch-bearers, i.e., the intrapreneurs, play a key role in keeping employees motivated and open new avenues for them to bring their vision and creativity into reality for the benefit of the organization. This results in an energized and enthusiastic work environment which helps the company move towards becoming world-class. 🖌

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Innovation is the specific instrument of entrepreneurship. The act that endows resources with a new capacity to create wealth.

Peter F Drucker