Technical Resilience in Intrapreneurs for Product Innovations : An Exploratory Study

Anuja Sehgal [1]
Neelam Saxena [2]
Sajeet Pradhan [3]

Abstract

Technical resilience in intrapreneurs was accepting realities and taking responsible actions through leading change. This research paper actualized an exploratory analysis of technical resilience leadership of intrapreneurs working in hi-tech product innovation companies. It deliberated on technical resilience leadership patterns of technical engineers and their socio-conscious progressive behavior in a technically competitive world. The paper conducted a descriptive, compared means, and exploratory analysis of the technical resilience leadership of 240 intrapreneurs and their product innovations with a statistical tool (SPSS). It examined intrapreneurs' visionary thinking, opportunity-seeking, capability-building, and environment-conscious behavior for creating novel product innovations. It evaluated the different scenario plans and featured the innovative work behaviors of intrapreneurs through novel product innovations. Scenarios significantly built high-risk-taking capabilities to address future uncertainties/complexities and improve social well-being. The exploratory analysis explored the core determinants of technical resilience leadership and their effect on assessing the usefulness of scenario plans for novel productions. The paper expressed the importance of scenario planning for change-making and building something new for societal value. The article meaningfully called the attention of audience readers, practitioners, scenario definers, policy formulators, academicians, and technopreneurs (intrapreneurs) on sense-making and differential approaches to scenario planning and idea building for fruitful, innovative production outcomes via technical resilience leadership. The paper proposed the various aspects of technical resilience leadership in intrapreneurs that concurrently led them to high scenario planning efforts for innovative project ideas with a keenness for resilient, differential action behavior.

Keywords : **technical resilience leadership (intrapreneurship), scenario planning, exploratory analysis, product innovations (applications)**

JEL Classification Codes : D81, O15, O32, O33

Paper Submission Date : April 25, 2022 ; Paper sent back for Revision : June 15, 2022 ; Paper Acceptance Date : August 18, 2022 ; Paper Published Online : October 15, 2022

In hi-tech companies, technical resilience in intrapreneurial leaders necessitates scenario planning for developing product innovations. Technical resilience leadership helps individuals recognize their inherent virtues, beliefs, strengths, knowledge, and abilities to become more versatile in handling uncertainties through potential scenario planning. In addition, scenario planning is valuable for future visualizations and for developing strategic action plans.

[1] *Ph.D. Scholar (Corresponding Author),* Amity Business School, Amity University, Sector -125, Noida - 201313, Uttar Pradesh. (Email : sehgalanuja@hotmail.com) ; ORCID iD : https://orcid.org/0000-0001-9852-1629
[2] *Professor and Head,* Amity Centre for Entrepreneurship Development, Amity University, Noida - 201 313, Uttar Pradesh. (Email : nsaxena@amity.edu) ; ORCID iD : https://orcid.org/0000-0001-7481-3440
[3] *Assistant Professor of OB and HR,* Indian Institute of Management Tiruchirappalli, Tiruchirappalli - 620 024, Tamil Nadu. (Email : sajeet.pradhan@gmail.com) ; ORCID iD : https://orcid.org/0000-0002-2581-4305

DOI : https://doi.org/10.17010/pijom/2022/v15i10/172407

Yet, despite this, little work has been found on satisfying scenario planning outcomes. This paper has attempted to plug the gap by projecting evidence of desired technical resilience leadership behaviors for practical work-value outcomes (Bouhalleb & Smida, 2020).

It is a known fact that proactive technical leadership helps design strategic possibilities. However, empirical evidence is needed on qualities of technical resilience leadership behaviors (individual capability, partnerships, scenario recognition, and planning) for innovative work behaviors. The researchers seek answers on the strength of the strategic posture of technical leadership while focusing on future imaginations and dealing with uncertainties to derive significant outcomes (Madrigano et al., 2017).

The research query involved developing a theoretical understanding of the technical resilience leadership model influenced by factors like visualizing potential opportunities, partnering capability building ability, owning high risks (resilience), socially conscious progressive behavior, and differential scenario action behavior. With emerging technologies, technical developers compete to develop innovative platforms and applications. This competition requires the know-how of differential innovation action approaches, market understanding, and external associations for implementing innovation dynamics (Arenas et al., 2020; Le Bas et al., 2015). Therefore, research is needed on flexible strategic scenario visualization and persistent technical resilience to develop product innovations (Kulshrestha & Jain, 2018).

The research information data was foregathered from 240 technical intrapreneur leaders of hi-tech organizations located in Noida, Delhi, Gurgaon, and some other regions of India. The study utilized statistical reasoning competence tools like exploratory factor examination and descriptive compare mean assessments to know the core dimensional areas of technical resilience leadership.

The research aims to study the following aspects:

- To know the demographic status profile of hi-tech technical leaders.
- To find the determinants of technical resilience leadership qualities vital for hi-tech organizations.
- To understand the effective use of technical resilience leadership determinants for product innovations in hi-tech companies.
- To reflect on the scenario plans of intrapreneurs for innovative work behavior.

The research on technical resilience persistence in intrapreneurs for product innovations is in demand to know the adequate preparedness in strategic planning for uncertainties, adaptability in work behaviors towards deficiencies, and routinization of scenario building (Bouhalleb & Smida, 2020). The paper potentially examines this persistence in hi-tech intrapreneurs for developing sense-making innovations.

Literature Review

Technical Resilience Leadership

Intrapreneurs' visionary, technical, resilient transformational leadership is required to create organizational value within organizations (Farrukh et al., 2022). The leaders must be determined to execute intentional innovations for societal benefit (Afsar et al., 2014; Obschonka et al., 2010). The eager beaver individual passion can be measured with purposefulness and the resolve to create something new (Fontana & Vezzulli, 2016). The individuals must be keen to take up different work assignments, advanced approaches, goals, and responsibilities that mobilize their abilities toward various attractive roles, enlarge their perspectives, and inducements for value actions (Stam et al., 2014). They should undertake every exertion to increase their technological base for increasing effectiveness in innovative endeavors (Mutsuddi & Sinha, 2021).

Visioning Potential Opportunities

The intrapreneurs learn to visualize and understand various future possibilities and envision the application in attention-seeking problem scenarios for differentiated change. They are mostly clear about what (objectives) they want to achieve and focus on directing efforts and designing schemes toward them (Arenas et al., 2020). They should visualize, plan effective programs, and communicate action plans and policies to get active support in realizing them (Aggarwal, 2019). They should focus on cascading vision expression, knowing prospective opportunities that create future usefulness and favorable outcomes in innovative accomplishments (Pradhan et al., 2018). The directive visioning of intrapreneurs can help in information exchange, dialogical meetings for purposive views, new realizations, and imaginations on technical achievements (Stam et al., 2014; Tripathi et al., 2020). Besides focusing on the vision-building context, the main research emphasis should be on understanding vision implementation effectiveness (Gaur, 2016).

Business Environment—Consciousness

The intrapreneurs must be conscious of the restrictions, limitations, resource control, strengths, and inherent potentialities of operational teams at the workplace and view what requires an overall improvement in processes and skills (Le Bas et al., 2015; Maitlis & Christianson, 2014). This effort will help them take notice of the shortcomings and early threat warnings and make considered decisions to handle them (Gandhi et al., 2021). As a result, intrapreneurs can plan and avail resources appropriately, cope with abrupt (unpredictable) changes, and adopt practices that set aside gainful consequences for society (Gupta & Gupta, 2019). In addition, co-existing recognition of several relative forces existing in the environment can accelerate performance and induce debate for expertise action (Birasnav et al., 2019; Pradhan & Pradhan, 2015). This includes recognizing process inefficiencies within individual team interactions, a sense of community well-being, and appropriate application of individual/role identity theories to motivate process effectiveness for transformation (Nandana Prabhu et al., 2019).

Owning High Risks

The intrapreneurs must take personal responsibility for prospects and evaluate frameworks of situational possibilities to develop something useful (Zinn, 2019; Zhao et al., 2020). They must know the structured pattern of occurrences under challenging circumstances and strategize to intellectually deal with existing ways of work while considering various risk initiatives (Bodwell & Chermack, 2010). They must openly visualize potential risk opportunities, assess risk capacities, and plan approaches perseveringly and constructively. The intrapreneurs must valuably appreciate the existence of risks and endeavor to convert them into practical learnings and engagements (Klimczak et al., 2020). The shared, situational understanding of risk opens up a platform of interactive learning and concerted knowledge effort for combined decisions (Farrukh et al., 2022; Prabhu & Koodamara, 2022). It induces responsibility and confidence in the ability of individuals leading to role model beneficial outcomes (Mura et al., 2013).

Differential Action Behaviour

The learnings on various problem scenarios trigger a spirit of inquiry, interest, wonder, and imaginativeness in evaluating decisions, innovation goals, and participation of several functional engineering groups in competency building for design integration and purposeful action behavior (Margolis & Ziegert, 2016; Montgomery, 2017; Verma & Singh, 2020). The intrapreneurs are encouraged to participate in activities that involve workplace integration of ideas in an organized manner to stimulate know-how and heterogeneity in innovative action-filled modus operandi for various situations. Divergent thinking promotes remarkable action, noteworthy outcomes, and variety in earnest activities (Battistelli et al., 2019; Kör et al., 2021; Pradhan & Jena, 2019). The co-existing problems foster the need for differential action behavior, fluid ideation, and creative thinking for new product developments (Fiorineschi et al., 2019; Pastuszak et al., 2012). Individuals with confident work strategies (flexible arrangements, lean operations) and improved partnerships are more likely to overcome rigidities in new technological outcomes (Burt & Nair, 2020; Steele et al., 2018).

Partnership Capability Concern

It involves collaborative learning and engagement for constructive breakthroughs with a long-term view. Intrapreneurs must adopt an empathetic, integrated, and collaborative involvement in ideation (generating lots of ideas) and experimentation (Steele et al., 2018). They must understand the interrelations of several resource skills and powers that can impact performance levels. They must collectively think of managerial and technical strategies that can direct shared capabilities toward common goals (Do et al., 2022; Pradhan & Jena, 2019). This involves mutual regard for group capacities, group action agreements, and relative engagements toward consolidating capabilities for beneficial actions (Nandana Prabhu et al., 2019). Collective thinking, integrated efforts, and generative actions are believed to give more power to ideation on different projects (Jnaneswar, 2019). The engineer intrapreneurs must purposively integrate individual experiences through single/double learning theories to refine competencies for new value innovations/problem-solving for different situations (Burt & Nair, 2020). They must look for definite concerns, discussions, learning traps, and work abilities for research and the development of innovative solutions.

Scenario Planning

Scenario planning is an utmost effort to identify feasible future assumptions and plan responsive actions toward them. It involves predicting future scenarios, identifying realities, reviewing past trends and driving forces, creating scenario plans, developing plausible scenarios, evaluating scenarios, and deciding action strategies accordingly (Bouhalleb & Smida, 2020; Duus, 2016). Scenario planning empowers individuals to consciously redefine business decisions and judiciously apply and examine the effectiveness of outcomes (Schumacher, 2012). The results must be rare, valuable, and realistically possible for users in society and drive energy for continuous innovation in the times ahead (Jena et al., 2019). The review of differential scenarios involves imaginativeness in plausible significant decisions governed by the potential surprise theory that helps determine productive actions (Derbyshire, 2017). This theory underpins the scenario planning process by accommodating any probable surprises in visualizing outcomes. This ensures endurance for uncertainty, stimulated learning, constructive reflection on possible scenarios, techniques for scenario evaluation, and maximization of ultimate gains (via innovation) over losses (Amer et al., 2013; Alekseev et al., 2019).

Product Innovations — Design Thinking

The essence of design thinking is to make an appreciative inquiry into the processes with four questions — What is? What if ? What enthralls ? and What works ? —in unstructured problems and scenarios to provide innovation (Stock & Schnarr, 2016). It involves adequate reasoning for resolving the challenge in the problem situation and designing practices to find a simplified, creative solution. The products may be designed with extensive anticipation, considerable thinking, and fluid imagination to cultivate imaginativeness and originality in expression (Hoever et al., 2012; Hahn, 2021). They may be developed after consideration of various potential ideas that may have been crowdsourced from several suggestions for effective design thinking. This process may include common users in idea development, technical capability assessment, business process improvements, and data-driven decision-making to appropriately fit the redefinition of experiential solutions for user-led innovations (Gaur, 2016; Schemmann et al., 2016; Tripathi et al., 2020).

Research Methodology

Exploratory Analysis

Exploratory analysis is a practical data analysis strategy that curiously examines the prevailing tendencies and movements in data and outlines the core characteristics of data for better understanding. It illustrates research graphically to represent industry insights.

The investigatory research study focussed on conducting exploratory, descriptive compare means and field interviews of technical intrapreneurs. A web-linked questionnaire was shared with a convenient sample of targeted technical intrapreneurs working in Delhi - NCR corporates on product innovation (application) scenarios on personal phone/LinkedIn messenger and direct contact at work. The data picked inputs on scenario planning, visioning opportunities, business environment-conscious, owning individual risks (resilience), and capacity-building partnership concerns for driving technical resilience leadership for product innovation within organizations.

The research instrument incorporated a modified 29-item bundled questionnaire of visionary leadership by Conger and Kanungo (1987) and that of innovative work behavior by Janssen (2000) to assess technical resilience leadership.

The items included scenario planning for innovative ideas (innovative work behavior (IIWB)) = 9 items, visioning potential opportunities (VPO) = 7 items, owning individual risk (OHR) = 3 items, business environment-conscious progressive behavior (BEC) = 4 items, differential action behavior (DAB) = 3 items, and building partnership capability concern (PCC) = 3 items. The itemized questionnaire enclosed 20 statements on a 5-point Likert scale (1– *Strongly disagree* to 5 – *Strongly agree*) and nine statements on a 7-point decisive Likert scale (1 – *Strongly disagree* to 7 – *Strongly agree*) based on prevailing standards. The statistical analysis tool (SPSS) version 21 was deployed for data analysis.

➯ **Aim 1 :** To know the demographic status profile of hi-tech technical leaders.

Demographic Review of Participants

The demographic review of participants generates information on gender, age, qualification, work experience (years), designation, and area of work (Table 1).

The research was actuated on a convenient sample of chosen technical intrapreneurs (N = 280) with a focus on assessing their technical resilience leadership. The study was channelized for six months from April–September 2021 in Indian software companies. Around 240 (85.7%) participants normally responded with an assurance of confidentiality on responses. These included 75.4% males and 24.6% females. The majority of the respondents (75.5%) were in the age group (20–31), and the rest (32–41) age group amounted to 24.6% and engineering bachelor's qualification (72.1%) and engineering master's (27.9%); 51.7% of technical intrapreneurs were from Delhi - NCR, and the rest (48.3%) were from outside. The lead designers, developers, and project managers comprised 70%, while the rest program managers and quality analysts included 30% of the respondents.

Table 1. *Demographic Review of the Participants*

Aspect Number	Categories Considered	Group Categories	Total Participants	Percent (%)
1	Gender	Male	181	75.4%
		Female	59	24.6%
2	Age	20 – 25	100	41.7%
		26 – 31	81	33.8%
		32 – 37	41	17.1%
		38 – 41	18	7.5%
3	Qualification	B.E	122	50.8%
		B.Tech	51	21.3%
		ME	67	27.9%
4	Work Experience (yrs)	2-8	98	40.8%
		9 – 15	82	34.2%
		16 – 22	38	15.8%
		20 – 26	17	7.1%
		27 – 31	5	2.1%
5	Roles	Lead Designers	72	30%
		Developers	51	21.3%
		Project Managers	45	18.8%
		Quality Analysts	40	16.7%
		Program Managers	32	13.3%
6	Area of Work	Noida	35	14.6%
		Delhi	70	29.2%
		Gurugram	19	7.9%
		Outside NCR	116	48.3%

Exploratory Factor Study

The exploratory factor analysis (EFA) is a conclusive, multi-determinant, numeric method that recognizes the underlying factors or determinants from a greater number of distinct variables. Table 2 reflects the Kaiser-Meyer-Olkin (KMO) sample adequacy details and Bartlett's test indicators. The KMO optimal value is known to be exceeding 0.70 and falls between 0 to 1. The KMO evaluation rules for sample adequacy signify figures 0.90 – 1.00 as grand, 0.80 – 0.90 as creditable, 0.70 – 0.80 as ordinary, 0.60 – 0.70 as mediocre, and 0.50 – 0.60 as insufficient.

Table 2. *Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity*

KMO and Bartlett's Test of Sphericity		
KMO (Sampling Adequacy).		0.894
Bartlett's Test of Sphericity	Approx. Chi-Square	5224.910
	Degrees of Freedom	406
	Sig.	.000

The Kaiser-Meyer-Olkin (KMO) figure on the technical resilience leadership scale is creditable at 0.894 (Table 2). The Bartlett's test indicates [Chi-square × 2 (406) = 5224.910].

As can be inferred from Table 3, 73.909% variance in six extracted factors explained variance in factors influencing technical resilience leadership (Table 3). Therefore, the extracted factor components with six high eigenvalues (in a data set) look to be retained from the parallel analysis. Hence, we have kept six factors from the total variance explained where values exceed 1.

➯ **Aim 2 :** To find the determinants of technical resilience leadership qualities vital for hi-tech companies.

The rotating component matrix investigates correlations between highly loaded, correlated assertions (Table 4).

Table 3. ***Total Variance Rationalized***

Total Variance Rationalized									
Component	Primary Eigenvalues			Exacting Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.837	33.920	33.920	9.837	33.920	33.920	7.106	24.505	24.505
2	3.767	12.991	46.911	3.767	12.991	46.911	4.692	16.179	40.683
3	2.633	9.079	55.990	2.633	9.079	55.990	2.667	9.197	49.880
4	2.245	7.742	63.732	2.245	7.742	63.732	2.451	8.452	58.332
5	1.913	6.595	70.327	1.913	6.595	70.327	2.294	7.912	66.244
6	1.039	3.582	73.909	1.039	3.582	73.909	2.223	7.665	73.909
7	.730	2.518	76.427						

Exaction Method : Principal Component Analysis.

Table 4. ***Rotated Component Matrix (Standardized Factor Loadings on Items in Scale)***

Rotated Component Matrix							
	Specific Statements	Component					
		1	2	3	4	5	6
IWB29	Assesses the use of innovative ideas.	0.886					
IWB28	Launches innovative ideas into the workplace in an organized manner.	0.883					
IWB24	Marshals help and assist with innovative ideas.	0.877					
IWB26	Makes prominent organizational members keen on innovative ideas.	0.870					
IWB23	Generates initial course of action for problematic issues.	0.864					
IWB27	Converts innovative ideas into convenient, utilitarian applications.	0.859					
IWB25	Obtains consent for genuine innovative ideas.	0.845					
IWB21	Creates new schemes/ideas for difficult scenarios.	0.844					
IWB22	Explores new operational practices, approaches, or plans of action.	0.825					
VPO6	Forecasting potential opportunities and objectives.		0.828				
VPO5	Enterprising in visualizing prospective ideas.		0.824				

VPO3	Showing persistence in generating prospective ideas for the organization.		0.802				
VPO1	Provides convincing, strategic goals/intentions.		0.793				
VPO2	Encouraging purposeful communication on work-applied behaviors.		0.741				
VPO7	Willingly appraises new scenarios, demands, leadership opportunities, and realistic natural/social situations that meet objectives.		0.711				
VPO4	Stimulating public trust with intent.		0.710				
BEC12	Willingly perceives sociological, societal (culture), locational, environmental restrictions, norms, and lack of down-up support for achieving organizational goals.			0.790			
BEC13	Realizes the limitations and restrictions of other team members.			0.780			
BEC14	Appreciation of proficiency, and capability of team members.			0.761			
BEC11	Willingly appraises physical, technological limitations, conditions, restraining resources, etc., that may hinder organizational goal success.			0.663			
OHR9	Exhibits high-risk ownership for organizational purposes.				0.899		
OHR10	Routinely assumes the higher individual cost for organizational advantage.				0.856		
OHR8	Often takes ownership of risky initiatives for organizational goals.				0.856		
DAB19	Uses progressive ways to achieve organizational goals.					0.899	
DAB18	Participates in advanced approaches for obtaining organizational goals.					0.864	
DAB20	Routinely observes unparalleled behavior that inspires and delights other team members.					0.779	
CAB17	Projects personal regard for feelings, demands, and perceptions of other team members.						0.811
CAB15	Empathy and respect toward co-workers' needs and emotions.						0.782
CAB16	Persuasive; cooperation, respect for partner team members.						0.776

Exaction process: Principal component analysis.

Rotation process : Varimax with Kaiser normalization.

[a] Rotation converged in six iterations.

Table 4 lays out a rotated component matrix with six extracted dimensions having high correlation values exceeding 0.500. Each of the extracted dimensions (c1, c2, c3, c4, c5, and c6) contain (9, 7, 4, 3, 3, 2) statements, respectively. The observations' relative statements help in narrowing the naming of dimensions.

c1—Scenario Planning with Innovative Ideas

c2—Visualizing Potential Opportunities

c3—Business Environment-Conscious

c4—Owning Risks (Resilience)

c5—Differential Action Behavior

c6—Partnership Capability Concern

All subscales' Cronbach's alpha values exceed the acceptable value of 0.70 (Table 5). This result uncovers that the scale is sufficiently reliable with high internal consistency. The values are closer to 1 in scenario planning with innovative ideas, visualizing potential opportunities, and owning high risks (resilience).

Table 5. ***Reliability Analysis of Determinants of Technical Resilience Leadership***

S.No.	Scale Dimensions	Sub-Scale Dimensions	Cronbach's Alpha
1	Scenario Planning with Innovative Ideas	9	0.965
2	Visualizing Potential Opportunities	7	0.913
3	Business Environment-Conscious	4	0.821
4	Owning High Risks (Resilience)	3	0.868
5	Differential Action Behavior	3	0.833
6	Partnership Capability Concern	3	0.827
	Complete Reliability Analysis of Determinants of Technical Resilience Leadership	29	0.894

Table 6. ***Simple Descriptive Statistics Review of Various Dimensions***

Descriptive Statistics Review				
Components	***N*(Number)**	**Mean Rank Value**	**Mean Value *(M)***	**Standard Deviation**
Scenario Planning with Innovative Ideas	240	1	5.6255	1.12749
Visualizing Potential Opportunities	240	4	3.9435	0.84467
Business Environment-Conscious	240	2	4.0875	0.77699
Owning Risks (Resilience)	240	5	3.1153	1.08373
Differential Action Behavior	240	5	3.1153	1.08373
Partnership Capability Concern	240	3	4.0819	0.86098
Valid *N* (list-wise)	240			

➯ **Aim 3 :** To understand the effective use of technical resilience leadership determinants for product innovations in hi-tech companies.

Table 6 shows that technical resilience leadership gives higher mean rank importance to scenario planning with innovative ideas (M = 5.6255), business environment-conscious behavior (M = 4.0875), and partnership capability concern (M = 4.0819). Visualizing potential opportunities (M = 3.9435) and risk ownership (resilience) (M = 3.1153) and differential action behavior (M = 3.1153) take place much later in order of importance (Table 6).

The mean (M = 5.6667) of assessing the usefulness of ideas is highest in scenario planning with innovative work ideas and related to exploring new organizational practices followed by plans of action (M = 5.6583), marshaling help and assistance for innovative ideas (M = 5.6500), and making organizational members keen for innovative ideas (M = 5.6333) (refer to Table 6(a)). Once this is done, technically resilient leaders are competently able to generate an initial course of action for problematic issues. Still, they are the lowest in launching innovative ideas into the workplace in an organized manner.

Technically resilient leaders are enterprising in visualizing prospective ideas (M = 4.0917), showing persistence in generating future ideas (M = 4.0125), and encouraging purposeful communication on work-applied behaviors (M = 4.0333) (Table 6(b)). However, they are low on stimulating public trust with intent (M = 3.6250) and convincing goals (M = 3.9500). Hence, a collectivistic strategic vision must be cascaded among individuals to develop more sensitivity toward purposeful development (Margolis & Ziegert, 2016).

Table 6(a). ***Scenario Planning with Innovative Ideas***

Descriptive Statistical Evidence					
	N(Total)	Minimum	Maximum	Mean *(M)*	Std. Deviation
Creates new schemes/ideas for difficult scenarios	240	1.00	7.00	5.5958	1.25727
Explores new operational practices, approaches, or plans of action	240	1.00	7.00	5.6583	1.28066
Generates initial course of action for problematic issues	240	1.00	7.00	5.6208	1.26507
Marshals help and assistance for innovative ideas	240	1.00	7.00	5.6500	1.20425
Obtains consent for genuine innovative ideas	240	1.00	7.00	5.6083	1.33693
Makes main organizational members keen on innovative ideas	240	1.00	7.00	5.6333	1.25717
Converts innovative ideas into convenient, utilitarian applications	240	1.00	7.00	5.6083	1.30205
Launches innovative ideas into the workplace in an organized manner	240	1.00	7.00	5.5875	1.28422
Assesses the use of innovative ideas	240	1.00	7.00	5.6667	1.28287
Valid *N* (listwise)	240				

Table 6(b). ***Visualizing Potential Opportunities***

Descriptive Statistical Evidence					
	N(Total)	Minimum	Maximum	Mean *(M)*	Std. Deviation
Forecasting potential opportunities and objectives	240	1.00	5.00	3.9208	1.03797
Enterprising in visualizing prospective ideas	240	1.00	5.00	4.0917	.99787
Showing persistence in generating prospective ideas in the organization	240	1.00	5.00	4.0125	1.04494
Provides convincing, strategic goals/intentions	240	1.00	5.00	3.9500	1.06955
Encouraging purposeful communication on work-applied behaviors	240	1.00	5.00	4.0333	1.04648
Stimulating public trust with intent	240	1.00	5.00	3.6250	1.06337
Willingly appraises new scenarios, demands, leadership opportunities, and realistic natural/social situations that meet objectives.	240	1.00	5.00	3.9708	1.03656
Valid *N* (listwise)	240				

Technically resilient leaders are business environment conscious and mainly focus on appreciation of the proficiency and capability of team members ($M = 4.2042$) along with an appraisal of other constraints (physical, technological limitations, conditions, and restraining resources ($M = 3.9750$)). In addition, they realize the limitations of other team members ($M = 3.9667$) (Table 6(c)). This must be viewed as challenging in enabling innovations and must be removed through improved knowledge exchange at the individual/team project level (Glynn et al., 2010).

Technically resilient leaders often take more ownership in risky initiatives for organizational goals ($M = 3.3042$) and routinely assume the higher individual cost for organizational advantage ($M = 3.1292$) (Table 6(d)). The results support past studies on building resilience capacity through routinizing risk ownership and training for improving technical resilience leadership (Zinn, 2019).

Technically resilient leaders exhibit differential action behavior by routinely observing delightful, unparalleled behavior that inspires other team members ($M = 3.1833$) and participates in an advanced way of obtaining organizational goals ($M = 3.0958$) (Table 6(e)). However, the progressive ways to achieve

Table 6(c). ***Business Environment—Consciousness***

Descriptive Statistical Evidence					
	N(Total)	Minimum	Maximum	Mean *(M)*	Std. Deviation
Willingly appraises physical, technological limitations, conditions, restraining resources, etc.) that may hinder organizational goal success	240	1.00	5.00	3.9750	1.00594
Willingly perceives sociological, societal(culture), locational, environment restrictions, norms, and lack of down-up support for achieving organizational goals	240	1.00	5.00	3.9458	0.92455
Realizes the limitations and restrictions of other team members	240	1.00	5.00	3.9667	0.98468
Appreciation of proficiency and capability of team members	240	1.00	5.00	4.2042	0.86541
Valid *N* (listwise)	240				

Table 6(d). ***Owning Risks (Resilience)***

Descriptive Statistical Evidence					
	N(Total)	Minimum	Maximum	Mean *(M)*	Std. Deviation
Often takes ownership in risky initiatives for organizational goals	240	1.00	5.00	3.3042	1.19412
Exhibits high-risk ownership for organizational purposes	240	1.00	5.00	3.0792	1.27002
Routinely assumes the higher individual cost for organizational advantage	240	1.00	5.00	3.1292	1.31454
Valid *N* (listwise)	240				

Table 6(e). ***Differential Action Behaviour***

Descriptive Statistical Evidence					
	N(Total)	Minimum	Maximum	Mean *(M)*	Std. Deviation
Participates in advanced approaches for obtaining organizational goals	240	1.00	5.00	3.0958	1.30784
Uses progressive ways to achieve organizational goals	240	1.00	5.00	3.0667	1.21864
Routinely observes unparalleled behavior that inspires and delights other team members	240	1.00	5.00	3.1833	1.22719
Valid *N* (listwise)	240				

organizational goals (M = 3.0667) need improvement. Hence, participants must persistently undertake differential work behaviors, R&D practices, market understandings, and external associations to develop strategic, innovative behaviors.

Technically resilient leaders are high on partnership capability concerns by showing empathy, respect toward co-workers' needs and emotions (M = 4.2000), and persuasive cooperation (M = 4.1500) (Refer to Table 6(f)).

➯ **Aim 4 :** To reflect on the scenario plans of intrapreneurs for innovative work behavior.

The reflection of scenario plans on innovative ideas and visualization of potential opportunities for partnership

Table 6(f). ***Partnership Capability Concern***

Descriptive Statistical Evidence					
	N(Total)	Minimum	Maximum	Mean *(M)*	Std. Deviation
Empathy and respect toward co-workers' needs and emotions	240	1.00	5.00	4.2000	0.98610
Persuasive cooperation, respect for partner team members	240	1.00	5.00	4.1500	0.92071
Projects personal regard for feelings, demands, and perceptions of other team members	240	1.00	5.00	3.8958	1.08315
Valid *N* (listwise)	240				

Table 7. ***Industry Examples : Technically Resilient Scenario Plans and Product Innovations***

S. No.	Scenario Plans	Product Innovations (Applications)
1	Managing day-to-day field sales activities	Field-Force app
2	Delivering information related to tenant documents	TAP (Tenant Assistance Program) app
3	Senior citizens tracking through postal codes	Senior-polis app
4	Spot and find parties near you and join guest lists of clubs	Party Finder app
5	Tracking of valuables	Seek it app
6	Grocery marketplace enablement	Go Grocer app
7	Event-scheduling	Catchup app
8	Cab booking or ride-sharing	Tag-Along app
9	Online wedding	Vows and Wishes app
10	Background verification	Verification app

capability for differential action (design integration) behavior in developing new workable product innovation applications can be seen in contemporary industry examples (Table 7). This efficacious information was meticulously collected from focused field interviews on differential action behaviors of lead engineers. As a result, the intrapreneurs have modeled patient consideration of contextual and individual needs and developed well-designed approaches for a more resolute innovative solution.

The variety of product innovation applications gives a staunch view of the intellectual thinking of group engineers and their differential action behaviors for an efficient, stretchable solution (Huang et al., 2021). They give a good view of their partnering capabilities, resilience power, socially conscious progressive behavior in hi-tech companies, and their efficiency in thought and action (Rivera, 2017). The application development is feedback-oriented, user-empathetic, and thought-provoking for more futuristic action plans (Brenk et al., 2019). It entails visioning intricate task definitions, collective sense-making in scenario plans, user education, user promotion, and implementation of compelling innovations for national utilization.

Findings

The study findings show that high-risk ownership (resilience) and business environment consciousness are needed to attain the organizational purpose. This includes using alternate differential approaches to achieve organizational goals. Though the past research focused on visioning scenario planning, the more recent studies explained inflexible/unadaptable views in scenario planning and the need for strategic design-thinking plans through unlearning (Alekseev et al., 2019; Bedwell & Chermack, 2010). Hence, training must be conducted to enhance preparedness in visualizing potential opportunities, resilience (risk ownership) building, scenario assessment, decision-making, and differential action approach by implementing learning theories via workshops (Derbyshire, 2017). The potential surprise theory can be applied to stretch mental power for divergent thinking and sense-making in scenario planning for national benefit. In addition, the team capabilities may be enhanced through individual recognition for improving product innovativeness across India.

Managerial and Theoretical Implications

The research outcomes show three significant value implications. Firstly, these outcomes contribute knowledge on industry examples of innovative behavior cases in the hi-tech software industry. They call the attention of scenario visualizers, executants, and technopreneurs (intrapreneurs) to integrate role identity theory for promoting differential and sense-making approaches to scenario planning for technical resilience leadership for innovative outcomes (Kör et al., 2021).

Second, the technical project managers, marketing experts, and academic partners can be inspired to contribute to crowdsourcing new potential schemes for complex scenarios through crowdsource campaigns involving collective creative intelligence, thus supporting the relevance of potential surprise theory (Chen et al., 2021). This stimulated learning can help build motivational business environment consciousness to handle process inefficiencies within individual capacities (Alekseev et al., 2019). Thirdly, they contribute to the argument for the routinization of training on opportunity recognition in complexities, constructive vision-building, strategic decision-making, scenario planning, idea implementation, and technology enablement for social well-being. Finally, technical intrapreneurs can be resilient in identifying any learning traps or rigid issue patterns and facilitating the removal of any restrictions for achieving organizational goals (Appleyard et al., 2020; Battistelli et al., 2019).

Conclusion

The paper delves into the conceptual framework of technical resilience leadership of lead engineer designers, developers, and other technical project managers. It showcases the high mean ranking on scenario planning for innovative ideas and change-making efforts for product innovations (novelty applications) for societal value. It exhibits the need for technical intrapreneurs to willingly appraise new scenarios, demands, leadership opportunities, and realistic situations to stimulate public trust with intent and show more ownership in risk-innovativeness (resilience) in launching innovative ideas into the workplace. Through the descriptive analytical review, it can be inferred that organizations need to foster technical resilience in their employees so that the organization has entrepreneurial orientation and motivation. The emphasis should be on developing differential action skill sets for innovative product development even after facing various challenges/failures. Hi-tech intrapreneurs must become more enterprising in visualizing prospective ideas and new courses of action for product innovations on problematic issues. Continuous assessment of developmental innovations, new societal requirements, technical work progress, and encouragement will direct the way for more resilience power for role performance effectiveness. The strategic direction of technical resilience intrapreneurship should be persuasive in entrepreneurial action to stimulate national interest (Hussein & Hafedh, 2020).

Limitations of the Study and Scope for Future Research

The all-inclusive paper has projected confirmed limitations. Firstly, the data seemingly belongs to an adequately limited sample size from Delhi - NCR and outside areas. Hence, the results are limited to this sample size specifically. The sample could be further increased in the future to grant a generalized representation of a bigger population.

Secondly, significantly less preliminary research has been found on scenario planning and strategic, differential innovation behavior relative to engineer intrapreneurs. Hence, we have taken a significant opportunity to the current needs of the society for further future headway and promotion of research (Gupta & Gupta, 2019). Thirdly, the research was effectuated within a limited time in specific regions of India. Future researchers can advance research in more areas of India with a longitudinal study to get a thorough perspective on technical resilience leadership and its imperfections. Fourthly, the research only focused on innovation behavior and technical resilience leadership. Some more aspects like trust, knowledge, strategic advances, and commitment can be included in the scale to critique technical resilience about these other aspects as well (Stock & Schnarr, 2016). This extension will help visualize the reasons for the outcomes' lack of personal risk assumption (Zinn, 2019).

Authors' Contribution

The authors ideated an exploratory study on components of technical resilience leadership for product innovations in hi-tech companies. Anuja Sehgal scanned distinctive research papers with appropriate keywords and evolved conceptual understanding. She interviewed intrapreneur engineers on differential action behaviors. Dr. Neelam Saxena and Dr. Sajeet Pradhan verified the accuracy of the exploratory factor analysis process and superintended the data analysis via statistical analysis tool (SPSS) version 21. Anuja Sehgal, Dr. Neelam Saxena, and Dr. Sajeet Pradhan interpreted the statistical evidence on the improvement needed in qualitative components of technical resilience leadership for innovative outcomes. Anuja Sehgal composed the manuscript.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this manuscript.

Funding Acknowledgement

The authors received no financial support for this article's research, authorship, and publication.

Acknowledgment

The authors respectfully credit various select intrapreneurs for providing utility opinions and information on novelty applications. Further, we thank the experts for refined research analysis through appropriate statistical guidance.

References

Afsar, B., Badir, Y. F., & Bin Saeed, B. (2014). Transformational leadership and innovative work behavior. *Industrial Management & Data Systems, 114*(8), 1270–1300. https://doi.org/10.1108/IMDS-05-2014-0152

Aggarwal, V. (2019). A conceptual study on factors of entrepreneurial potentiality and their impact on entrepreneurial intention with the moderating role of entrepreneurship education. *Prabandhan: Indian Journal of Management, 12*(6), 7–19. https://doi.org/10.17010/pijom/2019/v12i6/144932

Alekseev, M. A., Freidina, E. V., & Tropin, A. A. (2019). On overcoming strategic uncertainty through the integration of robust control and scenario planning. *Economics and Management, 9*, 97–106. https://doi.org/10.35854/1998-1627-2019-9-97-106

Amer, M., Daim, T. U., & Jetter, A. (2013). A review of scenario planning. *Futures, 46*, 23–40. https://doi.org/10.1016/j.futures.2012.10.003

Appleyard, M. M., Enders, A. H., & Velazquez, H. (2020). Regaining R&D leadership: The role of design thinking and creative forbearance. *California Management Review, 62*(2), 12–29. https://doi.org/10.1177/0008125619897395

Arenas, J. J., Gómez, J. E., Ortiz, E., Paz, F., & Parra, C. (2020). Elements of the persistence in innovation: Systematic literature review. *Administrative Sciences, 10*(4), 83. https://doi.org/10.3390/admsci10040083

Battistelli, A., Odoardi, C., Vandenberghe, C., Di Napoli, G., & Piccione, L. (2019). Information sharing and innovative work behavior: The role of work-based learning, challenging tasks, and organizational commitment. *Human Resource Development Quarterly, 30*(3), 361–381. https://doi.org/10.1002/hrdq.21344

Birasnav, M., Chaudhary, R., & Scillitoe, J. (2019). Integration of social capital and organizational learning theories to improve operational performance. *Global Journal of Flexible Systems Management, 20*, 141–155. https://doi.org/10.1007/s40171-019-00206-9

Bodwell, W., & Chermack, T. J. (2010). Organizational ambidexterity: Integrating deliberate and emergent strategy with scenario planning. *Technological Forecasting and Social Change, 77*(2), 193–202. https://doi.org/10.1016/j.techfore.2009.07.004

Bouhalleb, A., & Smida, A. (2020). Exploring the relationship between scenario planning and strategic flexibility and complexity. *European Journal of International Management*, *14*(3), 476–493. https://doi.org/10.1504/ejim.2020.107033

Brenk, S., Lüttgens, D., Diener, K., & Piller, F. (2019). Learning from failures in business model innovation: Solving decision-making logic conflicts through intrapreneurial effectuation. *Journal of Business Economics, 89*, 1097–1147. https://doi.org/10.1007/s11573-019-00954-1

Burt, G., & Nair, A. K. (2020). Rigidities of imagination in scenario planning: Strategic foresight through 'Unlearning.' *Technological Forecasting and Social Change, 153,* 119927. https://doi.org/10.1016/j.techfore.2020.119927

Chen, L., Gong, Y., Song, Y., & Wang, M. (2021). From creative environment to administrative innovation: Creation and implementation in top management teams. *Journal of Creative Behavior, 55*(3), 604–621. https://doi.org/10.1002/jocb.475

Derbyshire, J. (2017). Potential surprise theory as a theoretical foundation for scenario planning. *Technological Forecasting and Social Change, 124*, 77– 87. https://doi.org/10.1016/j.techfore.2016.05.008

Do, H., Budhwar, P., Shipton, H., Nguyen, H.-D., & Nguyen, B. (2022). Building organizational resilience, innovation through resource-based management initiatives, organizational learning, and environmental dynamism. *Journal of Business Research, 141*, 808–821. https://doi.org/10.1016/j.jbusres.2021.11.090

Duus, H. J. (2016). Strategic scenario construction made easy. *International Journal of Foresight and Innovation Policy*, *11*(1–3), 167–183. https://doi.org/10.1504/IJFIP.2016.078349

Farrukh, M., Meng, F., & Raza, A. (2022). Believe they can succeed, and they will: Intrapreneurial behavior and leadership. *European Journal of Innovation Management*, *25*(3), 661–679. https://doi.org/10.1108/EJIM-10-2020-0393

Fiorineschi, L., Frillici, F. S., Gregori, G., & Rotini, F. (2019). Stimulating idea generation for new product applications. *International Journal of Innovation Science, 10*(4), 454–474. https://doi.org/10.1108/IJIS-09-2017-0099

Fontana, R., & Vezzulli, A. (2016). Technological leadership and persistence in product innovation in the Local Area Network industry 1990–1999. *Research Policy, 45*(8), 1604–1619. https://doi.org/10.1016/j.respol.2016.04.002

Gandhi, S. J., Robb, C. C., & Lee, A. (2021). The entrepreneurial intrapreneur: A managerial approach to building entrepreneurial competencies. *International Journal of Entrepreneurship and Innovation Management, 25*(2 – 3), 211–232. https://doi.org/10.1504/IJEIM.2021.115049

Gaur, S. P. (2016). Kindling the creative potential. *Vision: The Journal of Business Perspective, 20*(4), 290–299. https://doi.org/10.1177/0972262916668712

Glynn, M. A., Kazanjian, R., & Drazin, R. (2010). Fostering innovation in complex product development settings : The role of team member identity and interteam interdependence. *Journal of Product Innovation Management, 27*(7), 1082–1095. https://doi.org/10.1111/j.1540-5885.2010.00772.x

Gupta, A. K., & Gupta, N. (2019). Innovation and culture as a dynamic capability for firm performance: A study from emerging markets. *Global Journal of Flexible Systems Management, 20*, 323–336. https://doi.org/10.1007/s40171-019-00218-5

Hahn, H. A. (2021). Why systems engineers may have an edge when it comes to personal resilience. *INCOSE International Symposium, 31*(1), 664–684. https://doi.org/10.1002/j.2334-5837.2021.00861.x

Hoever, I. J., Van Knippenberg, D., Van Ginkel, W. P., & Barkema, H. G. (2012). Fostering team creativity: Perspective taking as key to unlocking diversity's potential. *Journal of Applied Psychology, 97*(5), 982–996. https://doi.org/10.1037/a0029159

Huang, L.-Y., Yang Lin, S.-M., & Hsieh, Y.-J. (2021). Cultivation of intrapreneurship: A framework and challenges. *Frontiers in Psychology, 12,* 731990. https://doi.org/10.3389/fpsyg.2021.731990

Hussein, H. W., & Hafedh, A. A. (2020). Reflection of strategic behaviors in scenario planning. *International Journal of Research in Social Sciences and Humanities, 10*(4), 135–144. https://doi.org/10.37648/ijrssh.v10i04.013

Jena, L. K., Bhattacharyya, P., & Pradhan, S. (2019). Am I empowered through meaningful work? The moderating role of perceived flexibility in connecting meaningful work and psychological empowerment. *IIMB Management Review, 31*(3), 298–308. https://doi.org/10.1016/j.iimb.2019.03.010

Jnaneswar, K. (2019). Can work engagement and job satisfaction predict employee innovation? Case of Indian telecom employees. *Prabandhan: Indian Journal of Management, 12*(10), 7–19. https://doi.org/10.17010/pijom/2019/v12i10/147813

Klimczak, K. M., Machowiak, W., Shachmurove, Y., & Staniec, I. (2020). Perceived collaborative risk in small and medium technology enterprises. *Journal of Small Business Management*, 1–20. https://doi.org/10.1080/00472778.2020.1799305

Kör, B., Wakkee, I., & van der Sijde, P. (2021). How to promote managers' innovative behavior at work: Individual factors and perceptions. *Technovation, 99,* Article 102127. https://doi.org/10.1016/j.technovation.2020.102127

Kulshrestha, V., & Jain, K. (2018). Technology integration in the mobile communication industry: A review. *Prabandhan: Indian Journal of Management, 11*(4), 7–26. https://doi.org/10.17010/pijom/2018/v11i4/122824

Le Bas, C., Mothe, C., & Nguyen-Thi, T. U. (2015). The differentiated impacts of organizational innovation practices on technological innovation persistence. *European Journal of Innovation Management, 18*(1), 110–127. https://doi.org/10.1108/EJIM-09-2012-0085

Madrigano, J., Chandra, A., Costigan, T., & Acosta, J. D. (2017). Beyond disaster preparedness: Building a resilience-oriented workforce for the future. *International Journal of Environmental Research and Public Health, 14*(12), 1563. https://doi.org/10.3390/ijerph14121563

Maitlis, S., & Christianson, M. (2014). Sense-making in organizations: Taking stock and moving forward. *Academy of Management Annals, 8*(1), 57–125. https://doi.org/10.5465/19416520.2014.873177

Margolis, J. A., & Ziegert, J. C. (2016). Vertical flow of collectivistic leadership: An examination of the cascade of visionary leadership across levels. *The Leadership Quarterly, 27*(2), 334–348. https://doi.org/10.1016/j.leaqua.2016.01.005

Montgomery, T. (2017). What critical factors do companies consider when selecting innovation ideas? *Muma Business Review, 1,* 069–080. https://doi.org/10.28945/3843

Mura, M., Lettieri, E., Radaelli, G., & Spiller, N. (2013). Promoting professionals' innovative behavior through knowledge sharing: The moderating role of social capital. *Journal of Knowledge Management, 17*(4), 527–544. https://doi.org/10.1108/JKM-03-2013-0105

Mutsuddi, I., & Sinha, R. (2021). Role of leadership skills for developing digital acumen in information technology employees. *Vision: The Journal of Business Perspective*, *26*(2), 243–253. https://doi.org/10.1177/0972262920985955

Nandana Prabhu, K. P., Rodrigues, L. L., & Pai, Y. (2019). Transformational leadership and workplace spirituality: A structural model of team effectiveness. *Prabandhan: Indian Journal of Management, 12*(4), 7–22. https://doi.org/10.17010/pijom/2019/v12i4/143344

Obschonka, M., Silbereisen, R. K., & Schmitt-Rodermund, E. (2010). Entrepreneurial intention as developmental outcome. *Journal of Vocational Behavior, 77*(1), 63–72. https://doi.org/10.1016/j.jvb.2010.02.008

Pastuszak, Z., Shyu, S. H.-P., Lee, T.-R., Anussornnitisarn, P., & Kaewchur, O. (2012). Establishing interrelationships among organisational learning, innovation and performance. *International Journal of Innovation and Learning, 11*(2), 200–215. https://doi.org/10.1504/IJIL.2012.045176

Prabhu, N., & Koodamara, N. K. (2022). Exploring shared leadership: Mediating roles of spirit at work and team trust. *Prabandhan: Indian Journal of Management, 15*(2), 24–39. https://doi.org/10.17010/pijom/2022/v15i2/168333

Pradhan, S., & Pradhan, R. K. (2015). An empirical investigation of relationship among transformational leadership, affective organizational commitment and contextual performance. *Vision: The Journal of Business Perspective, 19*(3), 227–235. https://doi.org/10.1177/0972262915597089

Pradhan, S., Jena, L. K., & Bhattacharyya, P. (2018). Transformational leadership and contextual performance: Role of integrity among Indian IT professionals. *International Journal of Productivity and Performance Management, 67*(2), 445–462. https://doi.org/10.1108/IJPPM-08-2016-0186

Pradhan, S., & Jena, L. K. (2019). Does meaningful work explains the relationship between transformational leadership and innovative work behavior? *Vikalpa: The Journal for Decision Makers, 44*(1), 30–40. https://doi.org/10.1177/0256090919832434

Rivera, M. J. (2017). Leveraging innovation and intrapreneurship as a source for organizational growth. *International Journal of Innovation Science, 9*(2), 137–152. https://doi.org/10.1108/IJIS-12-2016-0057

Schemmann, B., Herrmann, A. M., Chappin, M. M., & Heimeriks, G. J. (2016). Crowdsourcing ideas: Involving ordinary users in the ideation phase of new product development. *Research Policy, 45*(6), 1145–1154. https://doi.org/10.1016/j.respol.2016.02.003

Schumacher, T. R. (2012). Constructing vision with scenario planning. In, *2012 Proceedings of PICMET '12: Technology Management for Emerging Technologies,* pp. 122-132.

Stam, D., Lord, R. G., van Knippenberg, D., & Wisse, B. (2014). An image of who we might become: Vision communication, possible selves, and vision pursuit. *Organization Science, 25*(4), 1172–1194. https://doi.org/10.1287/orsc.2013.0891

Steele, L. M., Johnson, G., & Medeiros, K. E. (2018). Looking beyond the generation of creative ideas: Confidence in evaluating ideas predicts creative outcomes. *Personality and Individual Differences, 125,* 21–29. https://doi.org/10.1016/j.paid.2017.12.028

Stock, R. M., & Schnarr, N. L. (2016). Exploring the product innovation outcomes of corporate culture and executive leadership. *International Journal of Innovation Management, 20*(1), 1650009. https://doi.org/10.1142/S1363919616500092

Tripathi, A., Bagga, T., & Aggarwal, R. K. (2020). Strategic impact of business intelligence: A review of literature. *Prabandhan: Indian Journal of Management, 13*(3), 35–48. https://doi.org/10.17010/pijom/2020/v13i3/151175

Verma, A., & Singh, P. (2020). Elucidating the effect of learning ability on employees' potential: A study of IT sector in India. *Prabandhan: Indian Journal of Management, 13*(2), 7–22. https://doi.org/10.17010/pijom/2020/v13i2/150561

Zhao, A., Sun, Z., Guan, H., & Jia, J. (2020). Research on the evolution of innovation behavior of new generation entrepreneurs in different scenarios. *Technological and Economic Development of Economy, 26*(5), 1098–1124. https://doi.org/10.3846/tede.2020.12373

Zinn, J. O. (2019). The meaning of risk-taking – key concepts and dimensions. *Journal of Risk Research, 22*(1), 1–15. https://doi.org/10.1080/13669877.2017.1351465

About the Authors

Anuja Sehgal is a Researcher at Amity Business School, Noida. She has academic/work achievements in global strategic human resources, public administration, intrapreneurship development, and entrepreneurial orientation. She is an XLRI Alumnus with Leadership Excellence, Best Paper Awards, and UGC/Scopus publications.

Dr. Neelam Saxena is Professor & Head at Amity Center for Entrepreneurship Development, Amity University, Noida. She is an entrepreneurship educator for women entrepreneurship programs and technology-based entrepreneurship and has over 40 research publications to her credit.

Dr. Sajeet Pradhan is a Faculty of Organization Behavior at the Indian Institute of Management Tiruchirappalli. He is an IIT Kharagpur doctorate with human resources qualification from KIIT University. He excels in behavioral training and has 30 ABDC/ABS article publications.