STAR, a Universal, Repeatable, Strategic Model of Corporate Innovation for Industry Domination

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Abstract—Within an existing organization, internal expertise, staffing, compensation, information systems, and market focus may complicate the introduction of new ideas while culture and aversion to risk may completely derail the organizations' ability to innovate. The STAR model for corporate innovation provides a theoretical model on how to develop and execute innovative practices to overcome these obstacles and achieve significant market penetration and value. The model is a theoretical framework that empowers organizations of all sizes to construct the necessary structures and advocacy needed to create products, services, and internal processes that enable them to dominate the industry in which they participate. The model also provides the mechanism to support the identification, acceptance, and rapid deployment of relevant new technologies that offer an opportunity to create an unfair advantage, something that is very hard to replicate.

Keywords—Corporate entrepreneurship; innovation model; market dominance; competitive advantage

I. INTRODUCTION

Few companies have strategic architecture to promote the creation and launch of bold new innovations that lead to market dominance. Without a strategic approach, they focus on fragmented tactical isolated activities. Processes do not exist that differentiate between minor product enhancements and bold new initiatives. While every organization has a culture, few, however, encourage and support innovation by fostering input from multiple diverse stakeholders. Innovation is not rewarded. Expertise is not acknowledged. Risk-taking is discouraged. Significant value creation is not considered. Rapid development and prototyping are not permitted until lengthy specification documents are prepared. Metrics do not exist to assess innovation initiatives. Thus, companies may theoretically support the notion of innovation, but the absence of an integrated strategic model limits their ability to actually innovate. These issues cited represent a small subset of the many challenges existing organizations face when attempting to strategically organize for innovation.

When considering the millions of organizations who attempt to innovate, but ultimately fail, understanding how to better conceptualize and enable innovation within an existing organization is crucially important. To begin to understand this important topic, the authors thoroughly reviewed the extant literature then created and deployed a management survey to assess corporate innovation and the necessity to create a management innovation model suitable for use by existing organizations. Survey respondents cited the benefits of innovation while also reporting the challenges encountered in their own organizations and the need to have some type of

model. Based on the survey results, the authors propose the STAR model for corporate innovation described in the remainder of this paper.

II. LITERATURE REVIEW

The literature is replete with tactical approaches for startup companies to create successful new products rapidly and accurately. Over the last 15 years, much of this discussion has been based on the seminal work by Eric Ries [1], who after concluding that many new products fail, proposed tactical novel approaches to product development. Instead of completing a lengthy specifications document that sometime took years to write, he proposed creating a minimum viable product based on perceived customer need. Then, through rapid development and continuous improvement, the product is refined and marketed thereby resulting in accelerated market entry. He argued that continuous improvement and focusing on delivering value to customers produces better results than the creation of traditional business plans.

Ries [2] stressed the importance of employing innovation accounting and continued the use of the term pivot (introduced in 2011) as a structured course correction. He explained that a "pivot" is a change in direction informed by feedback and data from the market, customers, or other sources. In most cases, it is not a complete change in direction, instead, it is a natural part of the iterative process. Ries [3] created a tactical step-by-step guide for implementing lean methodologies in product development. He expanded the discussion and use of a minimal viable product by incorporating practical tools and techniques to create and test customer value propositions. He also supplemented his approach with the creation of a leader's guide in which he suggests the use of innovation accounting methods to measure progress, how to manage entrepreneurial employees, and how to sustain innovation.

Reis successfully proposes tactical approaches for start-ups to create new products more rapidly. Adapting this approach to an existing company has limitations because it is proposed without consideration of an organization's infrastructure, personnel, expertise, staffing and its market focus. He addresses value creation, rapid development, hypothesis testing, and metrics. However, an existing organization is different from a new company. Ries does not address an existing organizations' structure, reward system, company culture and of course risk aversion. Most importantly, Reis does not address how to incorporate existing company resources [4], nor does he critically examine how to scale the initiative [5]. While it is known that there are tactical targeted approaches to enable innovation in start-up ventures, it is not

known whether there is a need for a similar approach for existing organizations. Specifically, it is not known whether existing organizations need an integrated strategic structure that provides the framework to enable innovation on an ongoing basis. To that end, the authors initiated a survey to assess whether management within existing companies in the United States supports the need for such a model.

III. RESEARCH METHODOLOGY

In 2022, a 32-question innovation survey was distributed to managers within existing companies in the United States to assess the current nature of how innovation is enabled within their respective organizations. In as much as there is little data relative to innovation execution within existing companies, the sample population, which includes multiple industries and organizations of all sizes, creates a balanced initial management assessment relative to the innovation process inherent to these organizations.

The sample population consists of managers employed in organizations of varying sizes. As such, 32.9% of the managers represent organizations with two to 100 employees, 34.7% of the managers represent organizations with 101 to 1,000 employees, and 32.4% of the managers represent organizations with 1001 or more employees. The sample population also includes managers employed in over 40 industrial sectors. The largest industry representation consists of Retail (9.3%), Healthcare (8.8%), Manufacturing (7.9%), Information Technology (6.5%), Food Beverage (5.6%), Education (4.6%), Construction (5.6%), Computer Software (4.6%), and Banking/Finance (4.6%).

U.S. managers in this study clearly state that innovation is critical and essential to their firm's success. Eighty-five percent of U.S. managers agreed or strongly agreed that "Innovation is critical to your firm's success," and 81.9% of those same managers agreed or strongly agreed that "Innovation is essential to your organization's survival." Moreover, 88% agreed or strongly agreed that "Innovation is good for your employees" and "Innovation is good for your customers," respectively.

However, in contrast to management's positive perception, the survey results indicate an absence of a corporate innovation model and the necessity to have one. U.S. managers specifically noted that their organizations "needed" certain elements of corporate entrepreneurship and innovation. Seventy percent of U.S. managers agreed or strongly agreed that their organization needs an interconnected (anti-siloed) innovation structure (i.e., ecosystem, finance, marketing, operations, sales, prototyping, internal and external networking) to bring new products to market or to deploy solutions to achieve market leadership. The need for an interconnected innovation model is supported by managers representing organizations of all sizes (Table 1) and industries (Table 2). It increases as the number of employees in the organization grows beyond 100.

While there is an expressed management need for a corporate innovation system, there is an acknowledgment of the absence of key factors included in such a system that

drives innovation. Specifically, only 57.9% of management agree or strongly agree that the firm's reward structure promotes innovation. Additionally, only 63% agree that the ecosystem, which consists of climate, environment, and work orientation is important to innovation in their company. Less than 66% indicate that it is easy for non-managers to introduce new ideas. Only 61% indicate that conflicting ideas are welcome in the organization and are well received, and less than 70% of the managers are encouraged to network and share new ideas that may lead to market leadership. Moreover, only 56% respond that the organization creates customer buyin before launching new products or solutions.

TABLE I. ORGANIZATIONS THAT STRONGLY AGREE FOR THE NEED FOR AN INNOVATION STRUCTURE

Number of Employees	N	% Strongly Agree
2 – 10 employees	13	54%
11 – 50 employees	31	68%
51 – 100 employees	27	63%
101 – 500 employees	34	74%
501 – 1000 employees	41	73%
1001 – 5000 employees	27	81%
5000+ employees	43	72%
Total	216	

Note: The table above represents the response to the question, "Organization needs interconnected structure," based on the number of employees in the manager's organization

TABLE II. INDUSTRY SECTORS THAT STRONGLY AGREE FOR THE NEED OF AN INTERCONNECTED INNOVATION STRUCTURE

Industry	N	%Strongly Agree
Education	10	80%
Food Beverage	12	75%
Healthcare	19	63%
Information / Tech	14	71%
Manufacturing	17	82%
Retail / Wholesale	20	55%
Total	216	

Note: The table above represents the response to the question, "Organization needs interconnected structure," based on the industry sector of the manager's organization

A. Discussion

Three findings emerged which illustrate the adverse relationship in organizational innovation needs vs. operational deployment. Management overwhelmingly indicates that innovation is crucial to their firm's success, is essential to their organization's survival, is good for employees, is good for customers, and is good for stakeholders. The second finding is much less positive than the first finding, as management indicates that their company is not overly successful in deploying new innovations into the market. In the third finding, management supports a solution through an interconnected innovation structure to bring new products or solutions to achieve market leadership. Moreover, as the number of employees increases, the expressed need for an interconnected innovation structure also increases.

The rationale for the inverse relationship in organizational needs vs operational deployment is complex; however, management cites several possible explanations. They suggest that the lack of organizational innovation collaboration, unaligned reward system relative to the innovative proposals, insufficient time to consider new approaches, and lack of encouragement to share, test, and pilot new ideas, adversely affects innovation. As such, this may explain the rationale for the expressed management need for a formal innovation structure.

B. Argument in Favor for a Model for Corporate Innovation

Researchers have created models to increase the likelihood of desired outcomes. Consider that as early as 1985, Peter Drucker [6] noted that entrepreneurship was an intentional and systematic discipline. Peter Senge [7], and J. Richard Hackman [8] reinforced this noting that the organizational intentionality—structures—increase the likelihood organizations can learn, adapt, and innovate Knezović and Drkić [9] also commented that specific determinants psychological empowerment, decision-making process, and organizational processes—precede innovative work behaviors. While some organizations appear to have to some extent an internal innovation model and structure such as Amazon [10], there appears to be paucity in the availability of a universally applicable corporate entrepreneurship and innovation models that can be replicated by organizations in multiple industries and sizes.

Based on system thinking and with recognition of previous research and current managerial survey results, the need for a universal model of corporate entrepreneurship and innovation emerged. What follows is an argument suggesting the creation of The STAR Model for Corporate EntrepreneurshipTM (STARTM), a replicable corporate innovation model that relies on predefined organizational structures that increase the likelihood of successful corporate entrepreneurship and innovation.

IV. STAR MODEL

STAR is a universal, repeatable, integrated strategic model for corporate innovation that empowers companies to create products, services and processes that enable them to dominate the industry in which they participate. STAR is a theoretical framework constructed on the foundation of four building blocks. Organizational structures (S) are the principles and practices that influence organizational outcomes. Think (T) is the process that empowers anyone in the organization to envision and propose bold new ideas that can have the potential to deliver market domination. Advocate (A) is a process that solicits support throughout the organization. Run (R) is a replicable process that provides the framework to go to market at the right time with the right resources. The acronym STAR provides a framework for managers, employees, consultants and academic researchers conceptualize how to best enable development and execution of innovative practices that result in significant market penetration. The broad universal applicability of the STAR Model is that all tactical elements for market dominating innovation reside in one of the components of the model.

Building on the foundational structural and process focused thinking of thought leaders like Senge, Porter, Kotter, and Hackman, STAR increases likelihood of replicable innovation success. STAR incorporates major tenets necessary to enable successful innovation. This model begins by establishing a structure to foster innovation, followed by the creative proposal to create scalable solutions that address big problems that can propel the company beyond market leadership to market dominance. Throughout the process, advocates are sought out to provide guidance, input, and support to influence senior management approval to go to market at the right time with the right resources.

A. Application of STAR

Implementation of the STAR model produces extraordinary results! In 2019 Levi Conlow co-founded Letric e-Bikes with his childhood friend Robby Deziel. Under the auspices of Grand Canyon University's Canyon Ventures Center for Innovation and Entrepreneurship, and using the tenets inherent to the STAR model. Mr. Conlow guided Letric e-Bikes to become a \$250+ million company in just under three years and the largest and fastest-growing e-bike brand in the United States. In 2021 Forbes took notice of the company's success and recognized Mr. Conlow as one of the nation's top 30 under 30 innovators [11]. Lectric's success can be attributed to excellent leadership and early implementation of the four components of STAR: Structures, Think, Advocate and Run.

The following sections provide additional details relative to each tenet in the STAR model. Corporate entrepreneurs working in institutions of all sizes may adopt the model as an architecture to achieve competitive advantages in the marketplace leading to market disruption and or domination.

V. STRUCTURES

Structures are principles and practices that influence organizational outcomes. They are a bias for action. Effective corporate entrepreneurs consciously build organizational structures that align reward systems and energize work into a dynamic innovation engine that seeks bold initiatives. As the foundation of the STAR model, Structures defines how work is done, who is responsible, and how information is shared within the organization. It is defined relative to the (a) creation of the organization's culture, (b) definition of the reward system, (c) creation of work structures, and (d) adoption of an information system.

A. Culture

Culture is the fabric that binds together what is acceptable and what is not acceptable. Culture are those things that we always do, never do, and that which we celebrate and correct. According to Schein [12], culture is present in artifacts, espoused values, and deeply held understandings. It shapes individual behavior through shared values, beliefs, and practices. It provides guideposts of what to do when explicit directions are not readily present. Culture is interwoven with the overall management system and is the unwritten rule book that works alongside the formal organizational structure. A culture that enables independent thought becomes the catalyst for creative thinking.

B. Rewards

Rewards, financial and non-monetary, reinforce and promote the creation of innovative thoughts and actions. Proposing new ideas, questioning old ideas, and exploring new technologies are risky and should be positively recognized. Employees who are rewarded for behaviors consistent with the organization's vision produce more predictable outcomes. If an organization wants empowered, creative, and innovative people, they reward it. As noted by Emilia Bratu [13] when writing about Lockheed's Skunk Works, "Reward performance, not status."

Moreover, when members of a team pivot from their original innovation, innovative organizations reward this. Consider the stories behind both the microwave oven and the Post-it note. Both were happy accidents, but Raytheon and 3M corporation, respectively, rewarded people for applying ideas in new ways. When the developer of a defense radar noticed his candy bar melted in his pocket, he developed the microwave oven. Similarly, when the inventor of a not-very-sticky glue used it on small notes to help him keep his place while singing in the church choir, he created the Post-it note. But, in both cases, there was someone within the organization that rewarded them for their creativity and encouraged them to run with their idea.

C. Work Structure

Work structures define core norms of conduct to balance control and chaos. Too much structure stifles creativity, and too little structure may diffuse outcomes. Work structures are aligned with the organization's culture and reward system. Organizations that find the balance between too much and too little structure unlock the potential of their teams [14]. Moreover, the work structures must reinforce the meaningful nature of the work, the value of the employee's personal contribution, and the opportunity and requirement to propose meaningful enhancements and innovations and receive feedback regarding the results of his or her work.

Work structures must be balanced with the end in mind. Before organizing work, leaders should ask, "What is non-negotiable, and where does the flexibility exist?" The organization of the work must allow for the next microwave oven or Post-it note invention while not detracting from the organization's vision.

D. Information Systems

Information Systems provide the organizational repository for innovative ideas, proposals, and projects, both successful and unsuccessful. The information system provides an objective measure of the level of innovation present within an organization. It offers the ultimate visible feedback loop providing insights into new opportunities. The system enables institutional visibility for anyone to view previously submitted ideas or to propose new ideas. Proposed ideas are automatically routed for review to assess whether the idea provides bold new opportunities or enhancements to an existing product. Ideas are presented to multiple departments within the organization for review. The use of information systems answers the question: What is the level of innovation

in the company? Does innovation have the potential to deliver market dominance? What projects are in the process? What projects have been successful? What projects were not successful (and why)?

Information systems inform the organization where it is compared to where it wants to be. Tracking the submission of ideas can help organizations to foster a culture of innovation by demonstrating that the organization values and is committed to supporting new ideas and initiatives.

E. Application of Structures

At the very onset, Conlow through his management team at Lectric E-bikes recognized the need to establish structure to foster innovation and to enable it pervasively throughout the organization. He adopted the STAR model as described in the following statement:

We believe that if you have the right structure, you get the right outcomes. To this end, we push innovation down into every area of the company from design to customer service. At Letric innovative ideas are expected and rewarded. This structure empowers the entire company to focus on solving customer problems that are then incorporated into product design and the sales process.

VI. THINK

Think represents the iterative process that empowers anyone in the organization to envision and propose bold new ideas that have the potential to deliver market domination. Building on the structures that precede the outcomes, the Think process rests on concepts well established in literature and industry, then integrates them into a clear model. However, in many cases, Think is viewed in isolation. Specifically, the Think process which is described below includes five stages.

A. Think Deeply

Think Deeply is an inquisitive, creative approach to uncovering important new sizable market opportunities. This is accomplished by critically questioning business, consumer, political, capital, and technology assumptions. Although business assumptions were once true, are they still true? Think deeply to challenge convention. Think to examine what is known. Think to discover what is not known. Think deeply to ask, "What if?" Successful organizations encourage thinking deeply about common things at all levels within the organization. Only one percent of the workforce is in top management. If thinking about innovation is exclusively limited to the top management, organizations will miss the ideas of 99% of their most vital resource—people.

Effective thinking encourages the conflict of ideas without allowing it to become a conflict between people. When ideas are allowed to clash, innovation follows. Good leaders protect the disruptors within their organizations because it is vital to challenge conventional thinking. Innovation comes from ideas, and ideas come from thoughts. Successful organizations encourage thought. Thinking organizations want the best ideas from 100% of their people, not only the top one percent.

B. Hypothesize and Prototype

The hypothesis is a proposal to create a new product or process that addresses a significant market opportunity. It is the natural outgrowth of Thinking Deeply. Hypotheses evolve into early prototyping [15]. At this early phase, a prototype developed within your team may be a presentation, a process flow document, a partial simulation including the market assessment (from the previous phase), or all combined. It does not need to be a fully functioning product or process. Prototypes should not be constrained by company directives and guidelines (except for legal) due to their potentially disruptive nature to the organization. Consequently, successful prototyping circumvents traditional barriers placed in organizations, which are adherence to the status quo operations, existing organizational structure, and the risk-averse nature of human beings.

In some cases, prototypes fail. However, creative organizations are willing to "Fail early to succeed sooner" [16] because early prototypes allow for discovery. Early prototypes, which can be revised over time and provide basic functionality to demonstrate the core idea of the product, are less costly and incur less risk than developing a fully functional product. Contrast this with traditional design models where considerable energy goes into planning, designing, and production. Early prototyping is a disciplined process that allows for issues to be encountered and solved early, thereby minimizing disruption upon entering the market. Addressing unforeseen production issues may be costly and, in some instances, cannot be overcome. Instead of order-to-chaos-to-order, early prototyping compresses the process by moving from chaos-to-order more quickly and efficiently [17]. The industry is replete with examples of this in the marketplace. Steve Jobs and Steve Wozniak's Apple 1 computer in 1975 is only one example of an early prototype that eventually disrupted the market. Similarly, Lonnie Johnson prototyped the Super Soaker squirt gun, which now accounts for one billion in sales.

C. Investigate

Investigate expands the prototype review beyond the initial development team to include designated groups within the company. Avoid protecting the prototype—do not fall in love with the early version. Encourage your investigators to break and expose weaknesses in the design. Suspend emotions and solicit the user's ideas. Effective innovators use feedback as the raw material for the next iteration. At this early phase, a prototype developed within your team may be an updated presentation, a refined process flow document, a partial simulation, including the market assessment (from the previous phase), or all combined.

Groups outside your department team_may provide truthful, unbiased input. Soliciting input beyond the development team may increase risk if negative feedback is shared throughout the organization. However, positive feedback helps garner support from advocates who may back the prototype towards company adoption. Investigate answers to the questions: What is good? What works? Does it fix a problem? What does not work? Does it satisfy the identified market opportunity? How can it be improved?

D. Network

In contrast to the Investigate stage, Network expands the initial prototype review to include select customers to solve a specific problem. Corporate entrepreneurs must clearly define and blueprint their solution, then secure an intent to purchase before it is officially built. After examining the wreckage of their failures, many innovators trace their ruin back to this step. They spent valuable time and money building a solution for customers or problems that did not exist. Successful innovators must constantly collaborate with customers to define each of the following:

- The actual problem
- A viable solution
- The price range or budget for the solution
- A comprehensive list of decision-makers
- The timing of delivery, and
- A clear statement of which features are necessary

Gathering feedback from real users helps identify issues or areas of improvement that company employees, from a different perspective, may fail to identify. Soliciting input from customers can be assessed as a higher risk. Receiving and incorporating their feedback early in this stage will make the Advocate dimension of the STAR Model easier. In addition, it is vital in the iterative process of hypothesizing and prototyping, investigating, and networking. Like the Investigate phase, in Network stage answers the questions: What is good? What works? Does it fix a problem? What does it not work? How can it be improved?

E. Kreate

Kreate completes the prototype process and solicits company-wide support for its adoption and go-to-market strategy. The development team may be ready to seek approval to proceed or may need additional work. They may need to acquire the support of an expanded set of Advocates or may need to modify the minimum value proposition (MVP). The Kreate stage answers the questions: What is the value of the innovation? When would you need to enable this innovation? How will this innovation be integrated? What is the anticipated disruption associated with integration? How can this innovation be scaled? The MVP sets the stage for the Advocate dimension of the STAR model.

Once the innovation has been sold internally, corporate entrepreneurs must continue the work of external selling. Corporate entrepreneurs must be in constant communication with their "customer evangelist group". This customer evangelist group should be representative of the total available market (TAM) you intend to capture. These will be the early adopters, think of them as the equivalent to the Key Advocates discussed in the Advocate section. All innovations are created for specific customers to solve specific problems. Corporate entrepreneurs must clearly define and blueprint their solution, then secure an intent to purchase before the solution is officially built. After examining the wreckage of their failures, many entrepreneurs trace their ruin

back to this step; they spent valuable time and money building a solution for customers or problems that did not exist. Successful corporate entrepreneurs must constantly collaborate with customers to define each of the following:

- The actual problem
- A viable solution
- Price range or budget for the solution
- All decision-makers
- Timing of delivery, and
- · Exactly which features are necessary

All this is accomplished with a tool often referred to as a requirements document. Each section of this nonbinding document is completed before anything is built. Throughout the process information is constantly verified and refined realizing that it is difficult to succinctly define the problem. Once the document is fully completed then executed by the prospective customer, it's then used to build the solution.

1) Application of think. Mr. Conlow and his team from Letric eBikes implemented the Think process to overcome their initial product failure. Conlow enabled a process to create scalable products and solutions that address big problems that propel the company beyond market leadership to market dominance. Using available research data, it was clear to Conlow that although European customers were aggressively purchasing ebikes, the US market was still in its infancy. Existing bicycle companies with dominant market positions and years of experience had not yet embraced the new technology, and as a result, the US market was wide open.

Lectric's first e-bike design was a total failure. However, Conlow knew from the data that the potential US e-bike market was massive. "The problem was not the market; it was our bike. The solution was simple, listen to the customer and re-work the prototype." Letric learned that their customers did not want to spend another \$500 to \$1500 on a bike rack to transport their new e-bike. The solution was to build a folding ebike that did not require a bike rack. The reduced price point of an ebike without the bike rack was an incredible innovation that was eagerly accepted by multiple market segments and was difficult to replicate by competitors. Additionally, the folding ebike shipped fully assembled in a box that was smaller than the full-size crates used to ship full-size ebikes. The smaller box made is less expensive to ship and minimized the potential for damage during shipment. The company utilized an organic marketing strategy to launch their newly designed ebike. The campaign deliver \$4 million in pre-orders within the first 30 days.

VII. ADVOCATE PROCESS

Advocate is the process of gaining approval for new innovation by securing the active support of individuals both inside and outside of the organization. The Advocate process works in concert with Think by securing individual support across the enterprise and its key customers.

Developing advocates to support a new innovation requires that one understands the neuroscience of risk. Knowing that everyone in your organization comes with their own level of risk tolerance is essential to successfully introducing an innovation. The findings of a study by Mueller et al. [18] support the notion of risk tolerance. A Cornell University publication summarized their findings "Why we crave creativity but reject creative ideas," [19]. The summary noted the following four reasons why novel ideas are often scorned.

- Creative ideas are, by definition, novel, and novelty can trigger feelings of uncertainty that make most people uncomfortable.
- People dismiss creative ideas in favor of purely practical ideas.
- Objective evidence shoring up the validity of a creative proposal does not motivate people to accept it.
- Anti-creativity bias is so subtle that people are unaware
 of it, which can interfere with their ability to recognize
 a creative idea.

A. Risk

To offset the natural aversion to accepting new ideas, innovations must be introduced as being of exceptionally low risk, intriguing, and viable if they are to gain public support. Incorporated into STAR, a three-part method of language, reports, and stages can help de-risk any innovation by building trust, thus securing buy-in from others.

- 1) Language. Language is important. entrepreneurs should approach potential key advocates and other stakeholders using specific low-risk language. New ideas should be presented with a combination of terms that convey safety and appeal. This combination replaces fear with curiosity. Corporate entrepreneurs may introduce a concept by saying something like,"We've been examining a growing market trend that seems to be going unnoticed by our competitors. We've crafted a test that, if successful, could become a very profitable new revenue source, and we could own this market." Notice the language, "test" is a low-risk term. The word "unnoticed" creates intrigue and introduces the idea of timing. The term "we've" implies that there is a group and there is safety in numbers. "Profitable new revenue source" helps to replace fear with curiosity and appeal.
- 2) Reports. Progress reports should be delivered to key stakeholders. In-person is the preferred method, as visual evaluation of body language and non-verbal cues provides invaluable insight to know if your conversion strategy is working. Updates should include both problem verification and prototype feedback. While email and video conferencing are acceptable, they do not allow for this type of surveillance. These reports follow a simple format that presents test results with a lucid infographic and no confusing information. Updates should be crisp and direct, long updates can become confusing and derail the innovation. A pithy report builds trust

and confidence, anything complicated or confusing can be threatening.

Securing the support of advocates is not done all at once; it is enabled carefully in specific stage. It begins with the innovator securing the support of staff within the department and then expands beyond the department to the entire company and eventually includes select customers. This progression is illustrated in the following five stages:

3) Stage 1: Identify Initial Advocates. By its very nature, innovative proposals of any type are often viewed cautiously. The prospect of something new that potentially may change the existing organizational structure, product mix, company strategy, underlying technology, operational processes, employee reward system, or even staffing levels is a red flag for many employees. For an innovation idea to survive beyond its infancy, the innovator must survive!

Carefully selecting individuals to support a new innovation within an existing organization is of paramount importance to minimize innovator risk. By choosing the right team members, organizations can mitigate potential risks and maximize the chances of successful implementation. Firstly, the selected individuals should possess a diverse set of skills and expertise relevant to the innovation's domain, allowing them to tackle various aspects of the project effectively. Secondly, a wellbalanced team that combines both seasoned experts and fresh minds can offer a mix of experience and creativity, leading to innovative solutions while avoiding tunnel vision. Thirdly, individuals with a proven track record of adaptability and openness to change are more likely to embrace the inherent risks associated with innovation, fostering a culture of resilience. Lastly, aligning the team's values and commitment to the organization's mission ensures a shared vision, boosting motivation and dedication to overcoming challenges. Careful selection of team members can enhance the innovation process, diminish the burden on individual innovators, and significantly reduce the overall risk, leading to the organization's long-term growth and success.

4) Stage 2: Build the Network. Once the initial advocates (who provide minimal risk) are identified, the innovator starts expanding the network of potential supporters who have a vested interest in the innovation and who can help spread the word about it. This includes a series of key advocates who have the power and position to enable the innovation to move forward. A key advocate is a respected and trusted leader in your organization, one who curries favor with other leaders and the rank and file. Key advocates mitigate risk in the minds of others. Building trust with at least one key advocate is essential to converting supporters and critics into public champions.

In addition, the advocate base must include customers, employees, influencers, industry experts, and other stakeholders. A thoughtful expanded network approach maps inherent risk of soliciting advice for a new innovation based on potential advocates key attributes: positional power, feedback, influence, knowledge, risk aversion, and status. Each attribute plays a vital role in determining the quality and

reliability of advice received. Positional power ensures that the advice comes from individuals with the necessary authority and experience to make informed decisions. Feedback provides valuable insights from various perspectives, enhancing the chances of identifying potential pitfalls and opportunities. Influence signifies the potential impact of the advice on the innovation's trajectory, making it crucial to gauge the credibility of the sources. Knowledgeable advisors possess expertise that can significantly improve the innovation's outcome. Risk aversion is crucial to consider, as overly cautious advice might hinder growth, while recklessness could lead to avoidable failures. Finally, understanding the status of potential advocates helps identify biases that might influence their suggestions. By thoughtfully mapping these risk factors, innovators can solicit meaningful information and support to propel innovations towards success.

5) Stage 3: Develop Your Messaging. To create a powerful network of advocates, a clear and compelling message about your innovation is needed. Be specific, emphasize how the innovation provides unparalleled opportunities for the organization to dominate the sector in which it operates.

Targeting your message is of paramount importance when soliciting support for an innovation that may significantly alter the organization's current environment. The message influences the success and reception of your idea both internally and with prospective customers. Tailoring your message to a specific audience ensures that the innovation's unique features, benefits, and value proposition are effectively communicated to customers while concurrently communicating how the innovation will enhance the organization market position and brand. By understanding the needs, preferences, and pain points of the target audience, you can craft a message that resonates with them on a personal level, increasing the likelihood of capturing their attention and generating interest. A well-targeted message also aids in establishing a strong brand identity and positioning in the competitive landscape, fostering customer loyalty and advocacy. Moreover, it enables you to focus marketing efforts and resources efficiently, optimizing outreach and maximizing the return on investment. In essence, effective message targeting plays a pivotal role in not only driving initial sales but also fostering long-term relationships with customers, ultimately leading to sustained growth and success for the new product in the market.

6) Stage 4: Engage, Gather Advice and Refine the Offering. Once the innovator(s) has built the network of advocates, it is essential to engage with them regularly. Engage, listen, and refine. Listen to learn. Learn what may not have been known or seen before engaging. Specifically ask for advice; research has shown this to be more effective than requesting feedback [20]. When seeking advice, an innovator solicits the expertise and knowledge from potential advocates gaining insights and suggestions with relevant experience in the industry or domain. The act of seeking advice is constructive as it provides a personal connection between the

innovator and the potential advocate. On the other hand, the act of seeking feedback does not result in enhancing the innovator relationship with potential advocates and may result in vague commentary that does not suggest how to improve the innovation.

Additionally, provide potential advocates with the resources, information, and tools they need to spread the word and build momentum. Be mindful to solicit input yourself; do not rely solely on others for their input. Allow advocates to be part of the team and value their opinions and insights. Time spent engaging your advocates transforms them from casual participants to enthusiastic supporters.

7) Stage 5: Monitor Progress and Adjust Strategies. Monitor the progress of your network of advocates and adjust your strategies as needed. Use data to track engagement and optimize your outreach efforts. A decision must be made to go forward decisively, to abandon the innovation, or to start again. A "go" decision moves into the Run stage of STAR. A "no-go" or "start again" decision leads to a reflective debriefing to leverage lessons learned for the next cycle of innovation using the iterative, perpetual process that is the STAR Model. The "Go" decision requires the consent of the final decision maker(s) for formal approval to move to Run.

B. Advocates in Action

Mr. Conlow and his Letric team made expert use of advocates and the advocate process to refine their product, identify their ideal customer profile (ICP), and market to their ideal customers. Mr. Conlow and his marketing team identified three different types of key advocates. These included e-bike experts, technical experts, and their prime customer influencer. Once identified, the Letric team expanded this network of key advocates. This network assisted Letric in developing its messaging, for example, Letric's prime customer are recreational vehicle owners or RVer's, the company engaged a social media influencer with thousands of these subscribers to do a product review of their new e-bike. Letric learned from this influencer, and from talking with their other advocates, prospects, and customers, that their messaging should showcase their new e-bike's folding capability. A folding e-bike precluded the extra expense of a bike rack. RV owners viewed Cetric's e-bike as space and expense saver, and the ideal alternative to hauling a car. Letric's expert use of the advocates and the Advocate process as described in the STAR model empowered the company to create and successfully launch their new e-bike and rapidly drive organic sales to over 150,000 units in their first 30 months.

VIII. RUN: THE TACTICAL APPLICATION OF THE STAR MODEL

Run represents a replicable iterative process, meticulously designed to provide a robust framework for venturing into the market at the right time with precisely calibrated resources. In the dynamic landscape of corporate innovation, Run stands as the tactical embodiment of the STAR model; Structure, Think, Advocate, and Run. This model is not a linear procession; rather, its components continuously evolve, interweave, refine,

are rigorously tested, and continually evolve and improve in response to the ever-shifting business landscape.

A. Run: A Replicable Iterative Process

Run's foundation rests on the steadfast understanding that markets and the conditions for execution are in a constant state of flux. The notion that any go-to-market plan can be perfect is debunked, for such assumptions can lead to disastrous outcomes. Unlike linear processes, Run is an ongoing journey with no fixed conclusion point. With each iteration, it systematically revisits the operational plan, fostering the nimbleness to address unforeseen obstacles and those entirely novel in nature.

B. The Ongoing Vitality of Structures

While Structures are designed earlier in the STAR process, their persistent relevance in Run cannot be overstated. These structural underpinnings encompass the fundamental principles and practices that exert a profound influence on organizational outcomes. A meticulously devised innovation reward system, technology deployment to assess and measure innovations, precise staffing levels, selection of innovation staff, strategic aligned marketing and investor communication plans, and unwavering financial support all contribute to the organization's readiness. This readiness transcends the confines of a single innovation; it pertains to the seamless execution of a continuous stream of innovations. A particular emphasis is placed on fostering an open culture that encourages input from all corners of the organization - an invaluable asset during the dynamic Run phase, where the unexpected demands immediate attention.

C. From Think to Run: Requirements Revalidation

The requirements document, initially crafted during the Think phase, undergoes a rigorous process of revalidation in Run This document, conceived months prior to the onset of Run, offers a preliminary definition of the problem, a theoretically viable solution, price range parameters, an ideal delivery timeframe, and delineation of the essential product features. In the ever-fluctuating landscape, Run continually recalibrates this ideal solution, ensuring its alignment with the current environment. Specifications are subjected to relentless assessment to guarantee that the innovation not only provides value but also forges a path to market leadership while remaining eminently achievable. The assessment ambitiously extends to encompass the innovation's producibility, pricing, marketing readiness, distribution strategy, and organization's preparedness to scale the innovation.

D. Embracing Change and the Quest for Market Leadership

Human nature inclines towards the illusion of constancy but Run reminds us of the inexorable nature of change. Failing to acknowledge this reality can be perilous, and the belief in an infallible go-to-market plan can prove catastrophic. It is imperative to remain vigilant, continuously scanning the environment for shifts, changes in internal and external advocate support, the sustained presence of organizational financial support, and the competitive landscape. Furthermore, for those resolute in their pursuit of market leadership, the imperative of scaling innovations takes center stage. This

endeavor necessitates considerable foresight, unwavering commitment, and strategic investments.

E. Application Market Dynamics Drive Lectric's e-Bikes Success

The triumph of Lectric e-bikes, a prominent player in the electric transportation market, serves as a compelling case study that aligns seamlessly with the principles of the STAR model, with a notable emphasis on scalability. For organizations determined to be a market leader, their innovations must rapidly scale. This requires foresight, commitment and investment as described by Levi Conlow, CEO and Co-founder of Lectric e-Bikes. "At the end of 2020 and early 2021, we began to scale our operations by making big investments and adjustments for how we bill, manufacture, distribute, and warehouse. That investment is starting to pay dividends now." offered Conlow. Consistent with the STAR model, scalability was paramount if Lectric's new e-bike was to establish market dominance. Their timing could not have been better, given the spike in U.S. demand for e-bikes. The Covid-19 pandemic triggered a surge in bicycle sales. Starting in July 20211, the twelve-month sales increased for twowheelers by 65% to \$5.3 billion, according to analyst Dirk Sorenson with market researcher NPD Group. "In the past two years, e-bikes grew by a whopping 240%, which made it the third-largest cycling category in terms of sales revenue behind mountain bikes and children's bikes and ahead of road bikes", Sorenson said in a recent report [11]. At the close of 2022, Letric was second only to Tesla in the total number of electric transportation units sold and is poised to pass Tesla in 2024. "The team at Lectric accomplished this through a novel approach of design, marketing, distribution, and customer support, which has earned it thousands of highly satisfied, loyal customers" [11]. Bertram Capital partner Ryan Craig said at the time of the company's VC's funding announcement.

Lectric's forward-thinking approach yielded substantial dividends, in perfect harmony with the STAR model's ethos. Lectric's timing aligned with the surging U.S. demand for ebikes amid the COVID-19 pandemic, underscored the model's efficacy. Run, as the tactical application of the STAR model, epitomizes a dynamic, adaptive approach to corporate innovation. It underscores the importance of continuous assessment, embraces change as the one constant, and champions scalability.

In summary, Run, as the tactical application of the STAR model, embodies adaptability, continuous assessment, and scalability. It champions an iterative approach where Structure, Think, Advocate, and Run are interwoven and constantly refined. The success of companies like Lectric ebikes underscores the efficacy of this model in navigating the ever-evolving landscape of corporate innovation.

IX. GETTING STARTED: ASSESS INNOVATION IN AN EXISTING ORGANIZATION

To adopt the STAR model, it is essential that senior leadership first assess the organization's innovation actions and the associated results. Then, this must be differentiated from management and staff perception regarding innovation in

the organization. This can be accomplished in two steps. In the first step, senior leadership should ask three questions:

- 1) How many new innovations or products were announced by your organization over the last five years? (List only)
- 2) To what extent did these products significantly grow revenue, market penetration, operating margins, or increase operational efficiency? (from the list, indicate the outcome)
- 3) Did the new innovations help to create an unfair advantage that will make it difficult for other organizations to replicate? (From the list, Yes, No response only)

In the second step, senior leadership should formally assess corporate innovation readiness by administering the STAR survey. Executing the survey will help leadership determine the extent in which management and non-management believe that innovation is crucial for organizational survival, whether there is support to achieve this, and whether they believe their innovation has been successful. Combining the organization's perception of innovation with the actual results provides the foundation for senior leadership to begin the strategic transformation of the organization to one that continually enables, enhances, and rewards innovation not just by management but is endorsed throughout the organization.

X. SUMMARY

The absence of a corporate innovation model can be a significant obstacle for companies seeking to drive innovation within their organization. Without a defined approach, companies may struggle to differentiate between regular product enhancement and bold new initiatives and subsequently lose the option to pursue bold market leadership opportunities. Without an integrated model to assess new ideas, prototype a promising idea, solicit internal and external feedback, consider scalability, and develop internal and external advocates, the potential to achieve sustained market leadership is problematic. Therefore, to address this need which is supported by a survey of 200 business managers, the authors propose adopting the STAR model, a teachable, replicable of innovation model. The model includes four tenets:

- 1) Structures: principles and practices that influence organizational outcomes
- 2) *Think:* the process that empowers anyone in the organization to envision and propose bold new ideas that can have the potential to deliver market domination.
- *3)* Advocate: process to gain approval for a new innovation by securing the active support of individuals both inside and outside of the organization.
- 4) Run: a replicable iterative process that provides the framework to go to market at the right time with the right resources.

The current focus in innovation research is primarily focused on new product creation through the vantage point of start-up companies. Agile development and creative thinking models do exist, but these models do not consider staffing,

compensation, technology, leadership authority, culture, risk aversion, and lack of innovation support that many existing organizations encounter that start-up companies do not have. New technologies such as AI provide incredible opportunities for competitive advantage in existing organizations. However, technology alone does not create competitive advantage. Skillful, rapid, cost-effective deployment supported by advocates within the organization and with select customers provides competitive advantage. Although adoption of an innovation model does not guarantee that the organization can outperform its competitors and of course new start-ups, it does improve the odds.

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