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INTERNATIONAL TINKER INNOVATION & ENTREPRENEURSHIP CHALLENGE (i-TIEC 2025)

"Fostering a Culture of Innovation and Entrepreneurial Excellence"

23 January 2025
PTDI, UiTM Cawangan Johor Kampus Pasir Gudang

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PREFACE

It is with great pleasure that we present the e-proceedings of International Tinker Innovation & Entrepreneurship Challenge (i-TIEC 2025), which compiles the extended abstracts submitted to the International Tinker Innovation & Entrepreneurship Challenge (i-TIEC 2025), held on 23 January 2025 at **PTDI, Universiti Teknologi MARA (UiTM) Cawangan Johor, Kampus Pasir Gudang.** This publication serves as a valuable resource, showcasing the intellectual contributions on the invention and innovation among students, academics, researchers, and professionals.

The International Tinker Innovation & Entrepreneurship Challenge (i-TIEC 2025), organized under the theme "Fostering a Culture of Innovation and Entrepreneurial Excellence," is designed to inspire participants at various academic levels, from secondary students to higher education students and professionals. The competition emphasizes both innovation and entrepreneurship, encouraging the development of product prototypes that address real-world problems and have clear commercialization potential. By focusing on technological and social innovations, i-TIEC 2025 highlights the importance of turning creative ideas into viable, market-ready solutions that can benefit users and society. The extended abstracts in this e-proceedings book showcase the diverse perspectives and depth of research presented during the event, reflecting the strong entrepreneurial element at its core.

We extend our sincere gratitude to the contributors for their dedication in sharing their innovation and the organizing committee for their hard work in ensuring the success of the event and this publication. We also appreciate the support of our collaborators; Mass Rapid Transit Corporation Sdn. Bhd. (MRT Corp), Universitas Labuhanbatu, Indonesia (ULB), Universitas Riau Kepulauan, Indonesia (UNRIKA) and IEEE Young Professionals Malaysia, whose contributions have been instrumental in making this event and publication possible.

We hope that this e-proceedings book will serve as a valuable reference for researchers, educators, and practitioners, inspiring further studies and collaborations in both innovation and entrepreneurship. May the knowledge shared here continue to spark new ideas and market-ready solutions, advancing our collective expertise and fostering the growth of entrepreneurial ventures.

B-SS001 - B-SS144

B-SS001: CATALYST™ (Corporate Activism & Leadership Yielding Sustainable Transformation)

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ABSTRACT

The aim of this paper is to present an innovative corporate governance mechanism model, which suits the Malaysian corporate environment and seeks to enhance shareholder activism, promote the ethical and socially responsible practices. The enhanced model sought to address the problem of active participation of the shareholders in the corporate governance activity–this activity was becoming more pronounced in relation to the demands for the ESG and risk management frameworks in Malaysia. This model distorts the lines between the historical notion of a corporate governance mechanism and modern developments and the integration of old and new approaches. Some key components of the model comprise a range of engagement mechanisms, including meetings with management, related voter education campaigns, among others, and setting up standard benchmarks for assessing impact. The peculiarity of the model is first in its applicability to the multi variance of the Malaysian socio-cultural and the legal environment and last but not least it relates to the specific needs of the diverse industries in the effort of placing relevancy in the local perspectives. The model provides a great socio-economic benefit by stimulating ethically acceptable business ethics and driving the cases of business transparency and thereby contributing to the sustainable economic.

Keywords: Shareholder Activism, Integrated Shareholder Activism Model, ESG, Corporate Governance, Risk Management.

1. Product description

CATALYSTTM signifies a comprehensive configuration that is designed for shareholders to influence the corporate behavior. This model (Figure 1) includes a broad conceptualization of several stakeholders. Among the basic elements (component 1) are shareholders' rights, voting mechanisms, board engagement procedures, and disclosure requirements, as prescribed under the law. Activism strategies also run the range, from behind-the-scenes collaborative dialogue to publicity campaigns, and legal battles (component 2). Cultural considerations, especially in Malaysia, where various traditions of corporate governance and old business practices must be made to work their way through the different industry (component 3). Communication methods to benefit the latest progress of communication technology, to channel the activism. Emphasis is given to transparency and timely disclosure (component 4). The risk management component in the model form part of the model's strategy that looks at prospective legal liabilities, reputational damage, and market reactions associated with shareholder activism (component 6). Supportive institutions for shareholder activism-such as proxy advisory firms, shareholder rights organizations, and corporate governance research bodies-form an enabling environment that would be a perfect additional component to the framework. Success metrics comprise together quantitative measures (stock price performance, operational improvements) with qualitative indicators related to governance reforms, sustainability initiatives, customer satisfaction, among others (component 5). The model remains subject to change in emerging trends in ESG activism and responsive. The technological advances in shareholder communication, and shifting regulatory landscapes, particularly regarding climate change and social responsibility considerations. This makes the model robust.

2. The Model Flowchart

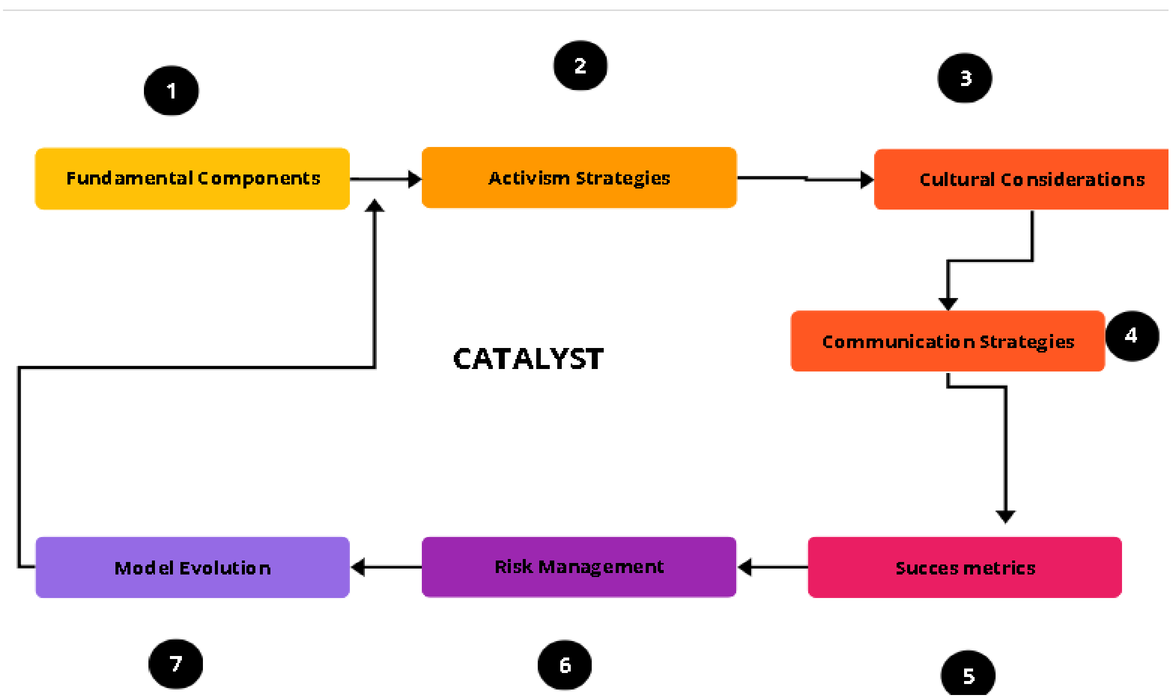

Figure 1. Model Flowchart of CATALYST™

3. Novelty and uniqueness

CATALYST™ proposed a cyclical model which, in contrast to the usual linear activism frameworks. Its novelty consists on integration of several stakeholder's perspectives and on a critical feedback loop which continuously refines activism strategies (component 7). The models unique property is the adaptive risk assessed matrix which conditions to changing market conditions and regulatory environment. It particularly and successfully integrates both collaborative and competitive approaches in a unified structure, providing tactical versatility, but preserving strategic integrity. The communication strategy is to incorporate contemporary digital means, creating a multi-channel approach boosting stakeholder presence and the effectiveness of the interaction. Learning ability is incorporated in the model by way of the feedback loop system, this innovative feature proves the validity of the model (component 7). Furthermore, its unique success metrics framework links the tracking of quantitative performance measures and qualitative improvements, enabling a broader assessment of activism effects than conventional approaches (component 6).

4. Benefit to mankind

This model is an enabler in effecting positive societal transformation through corporate accountability and infusion of the sustainability culture in the business. By focusing on driving meaningful transformation in corporate behavior, the model allows for better quality eco-friendly stewardship, robust social responsibility, and ethical governance practices for society at large. The model could importantly enhance the protection of minority shareholders' rights, besides stimulating sustainable business conduct. It is also a very effective tool in contributing positively towards community development with profitable operations by corporations. This model, with its serious underpinning of the need for greater corporate accountability by means of enhanced transparency and participation of stakeholders, contributes to less corruption and higher ethics in business. The model also encourages better corporate governance and sustainable practices, thus building resilient businesses that will offer stable employment, contribute toward economic growth, and contribute toward the well-being of societies in the long term-serving humanity's interest.

5. Innovation and Entrepreneurial Impact

The framework harnesses innovation and entrepreneurship by developing mechanisms that reward problem-solving and premeditated acts of discernment. An investor can stimulate venture in research and development, therefore creating an environment where innovative ideas can breed. Similarly, this model forces feedback for iterative improvement and experimentation, just like in entrepreneurship. This model provides a venue for the cross-pollination of ideas among different market participants through the stakeholder engagement framework, creating innovative solutions and new business opportunities. The encouragement of corporate venture capital initiatives and startup incubation programs are just some of what emerging entrepreneurs need. Emphasis on ESG considerations drives innovation in sustainable technologies and business practices. In turn, this model creates the appropriate environment for entrepreneurial initiatives to flourish by promoting forms of governance that permit risk-taking and innovation. Its value drivers now include innovation metrics that would spur corporations into supporting their competitive advantages through relentless technological development and innovation in business models.

6. Potential commercialization

The innovative approach presents opportunities, for commercialization for generating revenue streams. The solution can be presented as a consulting service package that offers tailored guidance to investors, senior management teams and investment funds looking to drive change. It could also be converted into a software platform as a service enabling users with automated resources for analyzing stakeholders’ interests evaluating risks and managing campaigns. The theoretical frameworks of the solution could be licensed out to firms specializing in governance consulting and proxy advisory services. Meanwhile the analytical tools can be monetized by offering subscription based access, to parties. Programs, for training and certification could be tailored for governance professionals and board members alike. Moreover, customization for industries or markets is possible resulting in solutions that can fetch higher prices. The data analytics feature can be offered as a dashboard service offering insights into trends in activism and the effectiveness of strategies leading to revenue streams, from segments of the market.

7. Authors' Biography

Maizatul Akmal Musa is a Malaysian academic researcher specializing in corporate governance and corporate administration. Her research interests focus on enhancing organizational effectiveness through improved governance structures and administrative processes, particularly in the Malaysian corporate context. Key Research Areas include Corporate Governance Mechanisms, Board Effectiveness, Organizational Performance and Corporate Sustainability Practice.

Shahril Eashak Ismail is a researcher in innovation and technology management, dedicated to advancing strategic technological development and organizational transformation. With a profound commitment to understanding the intersection of technological innovation and strategic implementation, Shahril explores complex frameworks of technological adoption, innovation diffusion, and organizational change management, providing valuable insights for academics, policymakers, and industry leaders seeking to navigate the complex landscape of technological advancement.

Yus Aznita Ustadi is an expert in corporate compliance and corporate secretarial practices, renowned for her comprehensive understanding of regulatory frameworks and governance strategies. Her research delves into the intricate landscape of corporate governance, focusing on developing robust compliance mechanisms that enhance organizational transparency, accountability, and ethical standards. Yus Aznita provides critical insights into risk management, regulatory adherence, and strategic corporate governance methodologies that help organizations navigate complex legal and regulatory environments effectively.