



E-PROCEEDINGS

INTERNATIONAL TINKER INNOVATION & ENTREPRENEURSHIP CHALLENGE

(i-TIEC 2025)

"Fostering a Culture of Innovation and Entrepreneurial Excellence"



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23 January 2025
PTDI, UiTM Cawangan Johor
Kampus Pasir Gudang

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Electrical Engineering Studies, College of Engineering
Universiti Teknologi MARA (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.

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B-SS124: DEVELOPMENT OF SEBLAK CRACKER MSMES IN INCREASING INNOVATION

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ABSTRACT

Economy is one of the main pillars that supports human life and society as a whole. In every country, the economy is an important determinant of growth and development, both through the production of goods and services, consumption, investment, and government policies. Micro, Small, and Medium Enterprises (MSMEs) are one of the important players in the economy, both at the local and national levels, KSungai Binti Old Village Rw.12 is an old village where the Latansa Cracker Factory is produced with the aim of helping to increase the market reach of Latansa cracker business owners. This research activity was carried out through UMKM development activities by providing innovation in the form of making new products from processed crackers to add new variations to cracker products that have been marketed previously. This activity was carried out using an experimental approach, where this activity produced new products from processed raw crackers into dry seblak cracker snacks, this activity is expected to help develop the business of UMKM owners, increase market reach with marketing strategies, increase market competitiveness, and this new product is also expected to be able to provide added value to their business.

Keywords: UMKM, Crackers, Product Innovation, Marketing

1. Product Description

The development of innovative seblak cracker UMKM using an experimental approach where researchers try to make new products from processed raw crackers into dry seblak cracker snacks. The reason for this research is because it sees the potential of UMKM where the cracker business has produced more than 5 types of crackers and has a wide marketing place from stalls to restaurants. The data source used is primary data, namely data sources obtained directly from sources by conducting observations and interviews according to the research conditions.

2. Pictures, Process and Method.



Figure 1. Production Implementation Method

Figure 1 shows the implementation of this activity which was carried out at the Latansa Sungai Binti RW.12 cracker factory. With a 2-day work process, the first day was the process of soaking the crackers in oil for one night, followed by the second day with the frying process until the product was packaged.



Figure 2: Branding Logo and Slogan

Figure 2 illustrates the branding logo with a slogan of “Like Its Delicious And Appetizing”



Figure 3.a: Ingredients of Seblak Crackers



Figure 3.b: Soaking the Crackers



Figure 3.c: Cracker Frying



Figure 3.d: Making Seasoning



Figure 3.e: Mixing the dough



Figure 3.f: Mixing the Flavors



Figure 3.g: Ready-to-Pack Products (400gr)



Figure 3.h: Banner Assistance for the UMKM Community of Kampung Tua Sungai Binti RW. 12

Figure 3.a - 3.h: The Process of Making Innovative Seblak Crackers

Figure 3.a - 3.h depicts the process of making innovative seblak crackers from preparing the ingredients to the packaging phase.

Table 1. Stages of the Seblak Cracker Making Process

Activity Day	Activity Process
First day	<ul style="list-style-type: none"> - The process of soaking 2kg of crackers. Crackers are soaked using 4 liters of cooking oil in a container or basin, the soaking process is carried out for 1 night - Ingredients: 2 kg crackers, 4 liters of oil, container for soaking crackers
The second day	<ul style="list-style-type: none"> - Next is the frying process. Crackers that have been soaked for 1 night are fried with cold oil, you can also use the oil used to soak the crackers. Crackers are fried using low heat so they don't expand, because dry seblak crackers have a hard texture but are cooked. - Thinly slice the garlic, galangal, and lime leaves. Then fry until dry. - Then blend the garlic and galangal until smooth. - Mix the masako, fried lime leaves, garlic and ground galangal into the mixture.

	<ul style="list-style-type: none"> - drained crackers. Also add bon cabe or chili powder to get the desired spicy taste. Then stir until all the spices are evenly mixed throughout the crackers - Then the crackers are put into the packaging that has been provided. - Ingredients: Fried crackers, masako, garlic, galangal, lime leaves, bon chili or chili powder, cracker packaging
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Table 1 shows the process of making dry seblak crackers takes two days. On the first day, 2kg of crackers are soaked overnight in 4 liters of cooking oil. On the second day, the soaked crackers are fried in cold oil over low heat to maintain their hard texture. Garlic, galangal, and lime leaves are sliced, fried, and blended before being mixed with masako seasoning and chili powder. The seasoned crackers are then packaged for distribution.

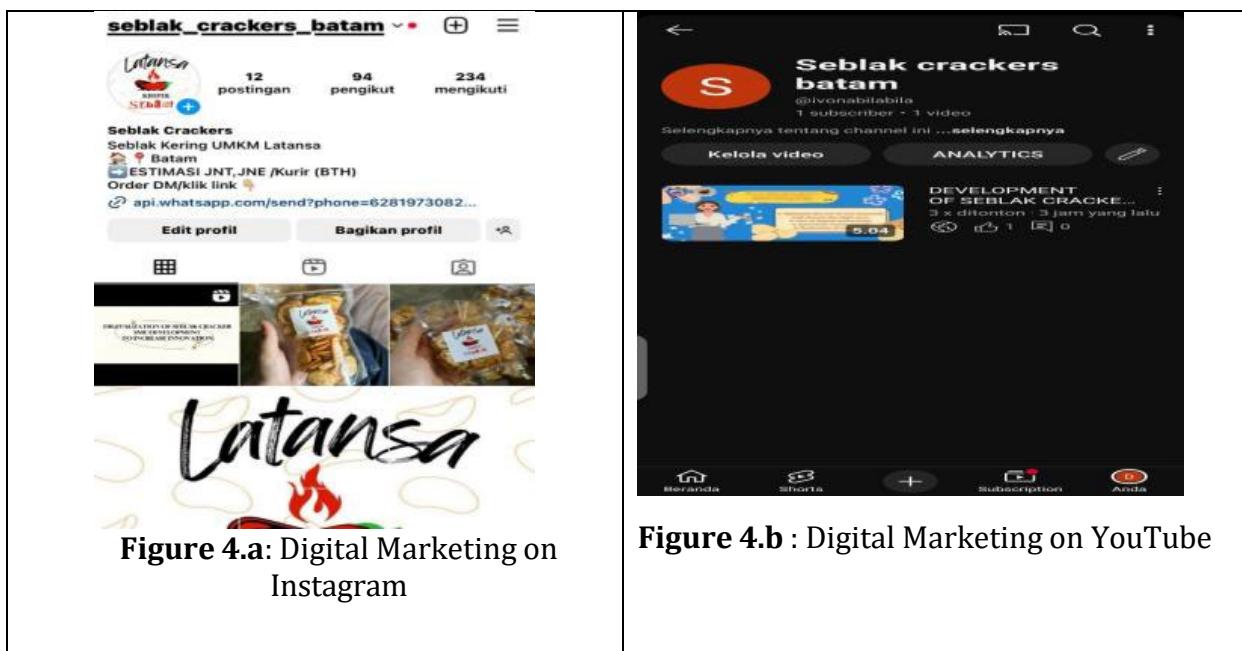


Figure 4: Digital Platforms: Social Media: Instagram & YouTube

Figure 4 shows the screenshot of digital platforms used to market the product. Instagram and YouTube are the primary platforms utilized for marketing, allowing for wider audience engagement through visual content. Instagram is used for promotional posts, product showcases, and customer interactions, while YouTube provides detailed video demonstrations and tutorials to enhance product visibility.

3. Novelty and uniqueness

Novelty and uniqueness are Product Innovation and creative marketing strategies. These two novelties cannot be separated. Product innovation is one way to increase innovation is by creating new variants of seblak crackers. For example, developing unique flavors or using healthier and more environmentally friendly raw materials. This can attract the attention of

consumers who are more concerned about health and sustainability while creative marketing strategy by using social media and digital platforms to promote seblak cracker products. this not only increases visibility but also allows direct interaction with consumers, which can provide valuable feedback for further product development.

4. Benefit to mankind

The development of seblak cracker UMKM not only provides benefits for business actors, but also brings benefits to society as a whole:

- i. Local Economic Development: With the development of seblak cracker UMKM, the local economy will increase. UMKM contributes significantly to job creation, helping to reduce unemployment rates.
- ii. Product Diversification and Consumer Choice: Innovation in seblak cracker products can provide a variety of choices for consumers. This not only increases consumer satisfaction but also encourages healthy competition.
- iii. Community Empowerment: MSME development often involves training and skills development for the community. This helps to improve the community's ability and knowledge in entrepreneurship.
- iv. Strengthening Community: Successful MSMEs often become centers of social activity. They can contribute to strengthening social networks and collaboration between residents.
- v. Innovation and Creativity: With the development of MSMEs, people are encouraged to innovate and think creatively, this is not only limited to seblak cracker products, but can also stimulate new ideas in business.

5. Innovation and Entrepreneurial Impact

Innovation and entrepreneurship are two important elements that support each other in the development of seblak cracker UMKM, where innovation in seblak cracker development can include variations in flavors, the use of healthier raw materials, or the introduction of new products that are in accordance with market trends. For example, creating seblak crackers with organic ingredients or unique flavor variants can attract more consumers and increase sales while encouraging entrepreneurship can create jobs, with more businesses being opened, job opportunities for the community also increase. Entrepreneurship encourages individuals to seek new opportunities and innovate, which can generate additional sources of income. Synergy between Innovation and Entrepreneurship, with Innovation carried out in products and processes can encourage entrepreneurial spirit among the community. Thus, the development of UMKM seblak crackers that focus on innovation not only increases product competitiveness, but also provides a significant boost to entrepreneurship in the community, which ultimately contributes to local economic growth.

6. Potential commercialization

The development of seblak cracker UMKM has significant commercial potential, which can have a positive impact not only for business actors but also for the local economy. Here are some of the commercial potentials of Seblak Cracker UMKM:

- i. High Market Demand: Seblak crackers are a popular snack in Indonesia, especially among young people and urban communities. With the increasing interest in unique and diverse snacks, seblak cracker MSMEs can take advantage of this trend to increase sales and expand market share.
- ii. Product Innovation: By innovating in taste, packaging, and raw materials, MSMEs can attract a wider consumer base. For example, creating a healthier seblak cracker variant or using organic ingredients can be an attractive selling point for health-conscious consumers.
- iii. Digital Marketing: The digital era provides a great opportunity for MSMEs to market their products online. By utilizing social media and e-commerce platforms, MSMEs seblak crackers can reach consumers in various regions, even internationally. This opens up opportunities to increase sales volume and expand distribution networks.

7. Acknowledgement

This gratitude is for all residents of Kampung Tua Sungai Binti RW. 12 who have been willing to accept input from researchers for the development of innovations in their seblak cracker products, and we would also like to thank our assistants, Mrs. Mira and Mrs. Mayang, who have provided a lot of assistance, input and encouragement in this research, as well as team members who have taken the time to achieve the goal of sharing knowledge and kindness to the people of Kampung Tuan Sungai Binti.

8. Authors' Biography



Ivo Siti Nabila was born in Batam on April 18, 2003. She is the first child of two siblings, spent her childhood until now in Batam. She studied at SMKN 8 Batam majoring in Clinical and Community Pharmacy. The author aspires to become a pharmacist but is hampered by costs. She studies as a student at the University of Riau Islands campus with a management study program and is also an employee at one of the manufacturing companies in the city of Batam.



Anggreani Febrianti was born in Kebumen, Central Java on February 25, 2001. He is the second of three siblings, from birth until graduating from SMK Somalangu Kebumen he finally decided to migrate and continue his education in Batam city. The author aspires to become an Accounting Manager and have a fashion business. However, because of the need for adequate literacy, knowledge and experience, he decided to study as a student at the University of Riau Islands campus with a management study program and at the same

time work as an officer in one of the manufacturing companies in Batam city.



Rimayang P Ramli was born in Bandung on June 28, 1990, spent his childhood and adolescence in Batam City. He studied at SMA Negeri 1 Batam, before continuing his studies to college level. In 2011, he earned a Bachelor of Education degree from the Indonesian University of Education (UPI) and then continued his postgraduate education at the same university. In 2014, he successfully completed his studies and obtained a Master of Management degree. His career began in the manufacturing industry in Batam City in 2015, but the calling to contribute to the world of education led the author to become a lecturer at the GICI Campus in 2016. In 2017, the author continued his career as a permanent lecturer at the University of Riau Islands (Unrika) and since then until now has served as Secretary of the Management Study Program at the Faculty of Economics and Business, Unrika Batam.



Mira Yona, born in East Timor, May 3, 1983, the seventh of seven siblings, a graduate of S2 DR. Soetomo Surabaya, management study program, and is currently pursuing a S3 level. Joined the World of Lecturers since 2008 and is currently holding the position of Head of the S1 Management Study Program at the University of Riau Islands, Batam. Motto "Work Sincerely with Maximum Results"