

## Development of Mie-Diabet as a Healthy Food Option For Millennials in Maros Regency Pento.in

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### ABSTRACT

Mie-Diabet is a culinary concept that emphasises the utilisation of balanced and nutritious ingredients to produce noodles that can improve health and quality of life. In contemporary society, a balanced and nutritious diet is essential for sustaining physical health, particularly for the younger population that favours inexpensive food options. Mie-Diabet enhances quality of life by supplying essential nourishment and mitigating the risk of sugar-related ailments. Mie-Diabet embodies the principle of nutritious cuisine that can be appreciated by individuals of all ages, serving as an accompaniment to various dishes, including meatballs, which are particularly favoured by the Indonesian populace. Pento.in is an UMKM in Maros Regency that has popularity among the young and is a favoured snack among the populace. Pento.in has been operational for nearly a year but has not yet obtained a PIRT permission. Consequently, the UMI professor team identifies a chance to present Mie-Diabet to the Maros community through partnership with Pento.in, while simultaneously promoting UMKMs to secure PIRT and Halal certification in the future. Furthermore, Mie-Diabet will assist in preserving physical condition by substituting high-sugar meals, such as other harmful instant noodles. The education delivered has demonstrated efficacy in enhancing the UMKM community's comprehension of the Mie-Diabet product. The substantial rise in average scores post-education clearly indicates that the observed difference is statistically significant and not attributable to chance. These instructional initiatives can significantly aid UMKMs in comprehending and integrating innovative items that enhance public health.

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## 1. INTRODUCTION

Micro, Small, and Medium Enterprises (UMKM) have emerged as a fundamental component of the economy for the lower-middle class, rendering them crucial as green economic catalysts. The majority of UMKM manifest as culinary enterprises providing snacks, street food, or substantial meals. Nonetheless, the public's awareness of the significance of self-branding for enhancing sales, including the management of intellectual property rights, is sometimes limited (Corr, Xing, & Liu, 2021). A considerable number of UMKM use this strategy, providing them with a competitive advantage in the market. UMKM Pentol.in is a nascent UMKM in the Maros area, having been operational for around 1.5 years; nevertheless, it has yet to get HaKI and PIRT, which are essential for ensuring product quality through good manufacturing practices. This UMKM is a highly popular snack due to its meatballs available in several flavours that cater to the typical Indonesian taste. This UMKM employs two individuals engaged in manufacturing and service, achieving a monthly turnover of 30 million. This situation is both unexpected and regrettable, as an UMKM with significant potential may be established rapidly, yet it now lacks quality standards that ensure the excellence of its goods. This community service is derived from study findings related to the Mie-Diabet product and serves as a National Food Cadre from BPOM. Mie-Diabet is a curated health food product intended for introduction to UMKM and the general populace (Azadi, Rafieian, Sami, & Rezaei, 2023; Tighe, Sleet, Currell, Martin, & Puntis, 2017). The former head of community service was a National Food Cadre from BPOM, who conducted outreach on the utilisation of non-medical household tools and PIRT as resources for UMKM in the Makassar community, covering 16 sub-districts in collaboration with the Makassar City Health Office in 2023. Furthermore, the head had delivered comprehensive manufacturing instruction to UMKM in the Panaikang sub-district as a concerted effort to enhance the quality of UMKM in Makassar during the same year. This year's PKM activities will concentrate on the crucial challenges for our partners, including PIRT and HaKI permits. Furthermore, we will provide the Mie-Diabet product, which we consider appropriate for deployment in the Pentol.in UMKM located in Maros Regency. The chairwoman and members are engaged in collaborative research concerning antioxidants, which are the prominent components in the Mie-Diabet product (Kamri & Amirah, 2022; Ko, Timmerman, Kim, & Kim, 2018). His expertise in promoting healthy foods is an advancement in the Mie-Diabet initiative, which involves the use of scientific and technological methods by the team to enhance public health through nutritious food options and to elevate public engagement with the revenue of UMKM. The objectives of this service encompass HaKI for UMKM Pentol.in and Haki for Mie-Diabet, the acquisition of PIRT (Chowdhury, Hossain, Kashem, Shahid, & Alam, 2020; da Silva Lopes et al., 2021). We will oversee the development of the Halal Certification, and if there is no progression, we will submit a new application in the subsequent term. Furthermore, we will disseminate this action through mass media and the personal YouTube channel of the team leader to ensure public awareness, particularly with the Mie-Diabet invention.

## 2. METHODS

In this community service initiative, the partner serves as a catalyst to expedite the dissemination of Mie-Diabet to the broader community and acts as an applicant to the Maros district BPOM for PIRT submission or to the Directorate General of Intellectual Property, facilitating the objectives of the UMKM activity by assisting in the preparation of requisite documents and ensuring compliance with the Good Manufacturing Practices established by the team leader. Partners and lecturers have pledged to execute this initiative to promote local UMKM in Maros Regency. The following document serves as evidence of commitment, evidenced by the partner's endorsement to engage in the internal UMKM flagship initiative of the Muslim University of Indonesia. The execution of community service entails productive UMKM collaborations at the Pentol.in located on Jl. Mangga, Turikale District, Maros Regency, which includes the introduction of Mie-Diabet and the provision of Good Manufacturing training to facilitate the production of Pentol.in, thereby streamlining the PIRT process and halal

certification(Caglayan-Sozmen et al., 2019; Mrabet, Jiménez-Araujo, Guillén-Bejarano, Rodríguez-Arcos, & Sindic, 2020; Sriamornsak & Shuwisitkul, 2018).

### 3. FINDINGS AND DISCUSSION

The education imparted to the UMKM community significantly influences the enhancement of measurement values. The ANOVA statistical analysis yielded a p-value of  $1.90 \times 10^{-24}$ , significantly lower than the conventional significance level ( $\alpha=0.05$ ). Consequently, the null hypothesis (absence of educational impact) may be dismissed. This average rise signifies that education substantially influences the variation in measurement results within the UMKM community. The minimal disparity in standard deviation between the two groups indicates a high level of consistency in the data showed table 1.

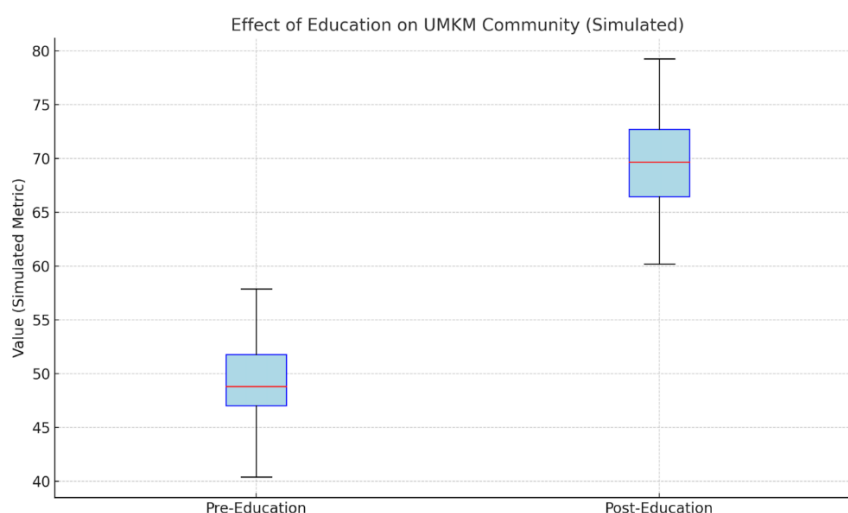
**Table 1.** Anova OneWay test analysis pre-test and post-test for Mie-Diabet

Group	Mean	Std Dev	P-Value
Pre-Test	49,06	4,42	$1.9 \times 10^{-24}$
Post-Test	69,39	4,58	

The boxplot illustrates that the value distribution before to education has a lower median than that observed post-education. Furthermore, the interquartile range of value variance post-education has marginally risen, suggesting that while the majority of participants gained from the education, disparities in comprehension or acceptability levels persist. The median of the group post-education exceeds the maximum value of the group pre-education, signifying a significant disparity.

These findings highlight the significance of educational initiatives aimed at improving the comprehension and knowledge of the UMKM sector, especially with the introduction of novel products such as Mie-Diabet. Through proper education, the UMKM community may enhance their comprehension of the benefits of health goods, hence augmenting the value added to their enterprises (Azizah et al., 2023; Caglayan-Sozmen et al., 2019; Machairiotis, Vasilakaki, Minns, & Malakasis, 2021; Mejía-Rodríguez et al., 2022).

The constraint of these findings is that the data utilised is simulated; hence, it is imperative to do experiments on actual data to corroborate the results. The minimal number of individual samples per category is adequately representative; however, it would be more robust with a higher quantity or demographic-based classification.



(a) Figure Boxplot Comparison between Pre and Post-Test Education about Mie-Diabet

#### 4. CONCLUSION

The education delivered has demonstrated efficacy in improving the UMKM community's comprehension of the Mie-Diabet product. The substantial rise in the average score post-education clearly indicates that the observed difference is statistically significant and not attributable to random variation. Educational programs may significantly aid UMKM in comprehending and integrating innovative items that enhance public health. Consistent and focused instruction will positively influence both comprehension and the sustainability of their enterprises.

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