

ANALISIS PROKSIMAT GLYCO BAR BERBASIS TEMPE, PISANG KEPOK, DAN KACANG TANAH SEBAGAI ALTERNATIF CAMILAN DALAM PENCEGAHAN PENYAKIT DEGENERATIF

Harlyanti Muthma'innah Mashar^{1*}, Itma Annah², Mikhael Rukhandra Panarang Tarung³,
Farrel Panampe Maleh⁴, Nur Lia Julianti⁵

^{1,3,4,5} Jurusan Gizi, Poltekkes Kemenkes Palangka Raya

² Jurusan Kebidanan, Poltekkes Kemenkes Palangka Raya

Article Info	ABSTRAK
Article History: Received 21/08/2026 Revised - Accepted 02/09/2026 Keywords: Proximate analysis Peanut Degenerative diseases Snack bar Tempeh flour	Peningkatan prevalensi penyakit degeneratif di Indonesia berkaitan erat dengan pola konsumsi tinggi gula dan rendah serat. Pengembangan pangan fungsional menjadi strategi potensial untuk menekan risiko penyakit degeneratif melalui penyediaan alternatif camilan padat gizi dan kaya serat. Inovasi snack bar berbasis tepung tempe, tepung pisang kepok, dan kacang tanah (Glyco Bar) menawarkan potensi pangan fungsional yang sehat, kaya gizi, dan rendah gula. Penelitian ini bertujuan untuk mengevaluasi komposisi gizi snack bar yang diformulasikan dengan substitusi tepung tempe, tepung pisang kepok, dan kacang tanah. Penelitian eksperimental ini menggunakan Rancangan Acak Lengkap (RAL) tiga formulasi perbandingan tepung tempe, tepung pisang kepok, dan kacang tanah: P1 (10%:60%:30%), P2 (15%:50%:35%), dan P3 (20%:20%:40%). Pembuatan produk dilaksanakan di Laboratorium Pangan Jurusan Gizi Poltekkes Kemenkes Palangka Raya, sedangkan analisis proksimat dilakukan di Laboratorium Uji Public Service TPHP Universitas Gadjah Mada secara triplo. Data dievaluasi berdasarkan Standar Nasional Indonesia (SNI) dan dianalisis secara statistik menggunakan One-Way ANOVA $\alpha=0,05$ yang dilanjutkan dengan uji Duncan's Multiple Range Test (DMRT). Seluruh formulasi snack bar memenuhi Standar Nasional Indonesia (SNI) pada parameter karbohidrat (32,80%–36,83%), protein (13,87%–14,83%), lemak (24,58%–28,57%), serat kasar (2,84%–3,42%), dan energi total (393,90–413,13 kkal/100 g), namun melebihi batas maksimum untuk kadar air (22,18%–22,45%) dan kadar abu (2,32%–2,41%). Hasil analisis statistik menunjukkan perbedaan signifikan ($p<0,05$) antar formulasi pada kandungan protein dan serat kasar, di mana formulasi P3 menghasilkan nilai tertinggi secara signifikan. Glyco Bar memenuhi standar gizi SNI dan berpotensi sebagai pilihan camilan fungsional dalam upaya pencegahan penyakit degeneratif. Formulasi P3 (20% tepung tempe, 20% tepung pisang kepok, 40% kacang tanah) terpilih sebagai formulasi terbaik karena terbukti secara statistik ($p<0,05$) memberikan peningkatan kandungan protein dan serat kasar yang paling optimal. ABSTRACT <i>The rising prevalence of degenerative diseases in Indonesia was strongly associated with dietary patterns high in sugar and low in fiber. Developing functional foods served as a potential strategy to mitigate the risk of degenerative diseases by providing nutrient-dense, high-fiber snack alternatives. The innovation of a snack bar</i>

formulated with tempeh flour, kepok banana flour, and peanuts (Glyco Bar) offered potential as a healthy, nutrient-rich, and low-sugar functional food. This study aimed to evaluate the nutritional composition of snack bars substituted with tempeh flour, kepok banana flour, and peanuts. This experimental study employed a Completely Randomized Design (CRD) with three ratio formulations of tempeh flour, kepok banana flour, and peanuts: P1 (10%:60%:30%), P2 (15%:50%:35%), and P3 (20%:20%:40%). Product preparation was conducted at the Food Laboratory, Department of Nutrition, Poltekkes Kemenkes Palangka Raya, while proximate analysis was performed in triplicate at the Public Service Testing Laboratory, Department of Food and Agricultural Product Technology, Universitas Gadjah Mada. Data were evaluated based on the Indonesian National Standard (SNI) and statistically analyzed using One-Way ANOVA $\alpha=0.05$, followed by Duncan's Multiple Range Test (DMRT). All snack bar formulations met the Indonesian National Standard (SNI) for carbohydrates (32.80%–36.83%), protein (13.87%–14.83%), fat (24.58%–28.57%), crude fiber (2.84%–3.42%), and total energy (393.90–413.13 kcal/100 g), but exceeded the maximum limits for moisture content (22.18%–22.45%) and ash content (2.32%–2.41%). Statistical analysis revealed significant differences ($p<0,05$) among formulations regarding protein and crude fiber contents, with formulation P3 yielding significantly the highest values. Glyco Bar met the SNI nutritional standards and demonstrated potential as a functional snack option for the prevention of degenerative diseases. Formulation P3 (20% tempeh flour, 20% kepok banana flour, 40% peanuts) was selected as the optimal formulation, as it was statistically proven ($p<0,05$) to provide the most optimal enhancement in protein and crude fiber content.

**Corresponding Author: harlyanti@polkesraya.ac.id*
