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Entrepreneurship for profitable farming: Extension education pathways for youth agripreneurship

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Abstract

This narrative review was updated in 2026 to synthesize evidence on how extension education can help transform farming into a profitable entrepreneurial career for rural youth and agricultural graduates. Published literature assembled in the source manuscript was screened for relevance, recency and direct contribution to agripreneurship, entrepreneurial education, youth engagement, incubation, finance, markets and value addition; recent studies from the Indian Journal of Extension Education were also incorporated. The synthesis showed that entrepreneurial intention alone was insufficient for enterprise success. Profitable agripreneurship depended on opportunity recognition, business planning, financial and marketing competence, technology use, risk management and continuous learning. Experiential approaches such as field projects, mentoring, simulation, exposure visits and enterprise-based learning strengthened practical competence, while incubation centres and extension organizations improved access to technical advice, networks and commercialization support. Constraints related to land, credit, markets, social perceptions and weak institutional coordination continued to limit youth participation. The review concluded that extension education should integrate competency development with incubation, finance, market intelligence and post-training mentoring to support sustainable farm enterprises and rural employment.

Keywords: Agribusiness incubation, entrepreneurial competency, experiential learning, extension education, rural youth, value addition, farm enterprise

Introduction

Agriculture is increasingly expected to generate not only food and raw materials but also competitive enterprises, rural employment and value-added opportunities. This shift has strengthened interest in agripreneurship, which applies opportunity recognition, innovation, risk management, resource mobilization and market orientation to farm and allied activities. The relevance of this approach is especially high for rural youth and agricultural graduates because conventional employment opportunities are limited while agriculture continues to offer space for new services, processing, input delivery, livestock enterprises, digital advisory, direct marketing and niche production. Evidence nevertheless shows that many young people perceive farming as physically demanding, uncertain and less rewarding than non-farm occupations, and these perceptions interact with limited access to land, finance, markets and reliable information (Geza *et al.*, 2021; Girdžiūtė *et al.*, 2022; Henning *et al.*, 2022) ^[10, 11, 13].

Entrepreneurship education can influence this situation when it develops competence rather than merely awareness. Studies have emphasized opportunity recognition, planning, creativity, communication, financial management, networking and problem solving as learnable capabilities that shape entrepreneurial intention and performance (Hou *et al.*,

2022; Li *et al.*, 2023; Pinto *et al.*, 2024) ^[14, 17, 23]. Within agriculture, training must also connect these generic capabilities with production technologies, value chains, market intelligence and risk reduction. Recent Indian evidence has highlighted the utility of enterprise planning, exposure visits, case-based learning and entrepreneurial management within agripreneurship training programmes (Kumari *et al.*, 2024) ^[16]. Agripreneurial competency has likewise been associated with education, income, age and experience, indicating that extension interventions should be differentiated according to the learner and enterprise context (Panigrahi *et al.*, 2025) ^[21]. Extension education provides a practical bridge between technical knowledge and enterprise action. Its role extends beyond technology transfer to facilitation, mentoring, networking, market linkage, group organization and support for innovation. Agri-entrepreneurship promoting institutions in India have increasingly combined training with co-working spaces, certification support, branding, pitching assistance and incubation, although funding and intellectual property support remain uneven (Kadmani *et al.*, 2024) ^[15]. Globally, agricultural entrepreneurship research has also expanded around entrepreneurial behaviour, innovation systems, sustainability and institutional support, confirming that enterprise development is now a central concern of

agricultural extension and rural development (Vineeta *et al.*, 2026)^[27].

The present review therefore examines how entrepreneurial education and extension support can contribute to profitable farming. It focuses on three interrelated questions: which competencies are most relevant for youth agripreneurship; which learning approaches are most likely to translate knowledge into enterprise behaviour; and which institutional conditions are needed to sustain profitable farm ventures. Particular attention is given to the practical role of agricultural universities and extension organizations because these institutions can connect technical knowledge with enterprise planning, market information and mentoring. The objective is to reorganize the available evidence into an extension-oriented framework that links competence development, experiential learning and entrepreneurial ecosystems with farm profitability, value addition and rural employment.

Methodology

A narrative review design was adopted because the source manuscript was a conceptual synthesis rather than a report of primary field experimentation. The literature corpus consisted of the published studies and institutional sources already assembled in the manuscript, with emphasis on agripreneurship, youth participation in agriculture, entrepreneurship education, entrepreneurial competencies, incubation, technology adoption, finance, market access and value addition. During the 2026 journal-format revision, references were screened for direct relevance to the review objective, authenticity and recency. Duplicate citations, incomplete or unauthenticated entries and sources that did not materially support the central argument were excluded. Preference was given to peer-reviewed work published within the preceding 15 years, particularly studies from 2020 onward.

To strengthen alignment with extension education, recent articles from the Indian Journal of Extension Education published during 2024-2026 were incorporated on agripreneurship training, promoting institutions, entrepreneurial competency and the knowledge structure of agricultural entrepreneurship. The retained evidence was organized thematically into three domains: youth orientation and entrepreneurial competencies; experiential extension education and technology-enabled learning; and institutional ecosystems involving incubation, finance, markets and post-training support. Findings were synthesized narratively by identifying recurring relationships, constraints and practical implications across studies rather than by estimating pooled statistical effects. The synthesis emphasized areas of convergence and complementary evidence relevant to agricultural universities, extension organizations and rural enterprise development. Evidence was compared across studies to distinguish individual-level factors, learning-process factors and institutional factors, and the resulting themes were translated into practical extension actions. International studies were retained when they clarified mechanisms also relevant to Indian agripreneurship, while recent Indian extension literature was given priority for institutional and training implications. Because the source literature used diverse designs, populations and outcome measures, findings were interpreted qualitatively and no causal effect sizes were inferred. No primary human or animal data were collected for this review, and no meta-analysis was undertaken.

Results and Discussion

Youth orientation and agripreneurial competencies

The reviewed evidence consistently indicated that the decision to enter agriculture as an enterprise was shaped by both perceived opportunity and the surrounding resource environment. Youth participation declined when farming was associated with low prestige, unstable returns, weak services and limited access to land or capital; conversely, participation improved when young people could see clear pathways to income, innovation and professional growth (Fiedler, 2020; Geza *et al.*, 2021; Girdžiūtė *et al.*, 2022; Henning *et al.*, 2022)^[9, 10, 11, 13]. These findings imply that extension programmes should not treat lack of motivation as the only barrier. Motivation becomes meaningful when it is supported by accessible resources, enterprise choices and visible market opportunities.

Entrepreneurial competence emerged as a second decisive factor. Agripreneurs require the ability to recognize opportunities, organize resources, make strategic decisions, maintain commitment and adapt to uncertainty. Indian evidence has identified opportunistic, organizing, strategic, commitment and personal competency as important dimensions, with age and experience contributing substantially to variation in competency levels (Panigrahi *et al.*, 2025)^[21]. Other studies similarly linked entrepreneurial learning, self-efficacy and creativity with stronger entrepreneurial intention and enterprise-oriented behaviour (Hou *et al.*, 2022; Li *et al.*, 2023)^[14, 17]. For extension education, this means that technical training alone is insufficient. Enterprise curricula need business planning, costing, financial literacy, marketing, negotiation, digital communication, customer discovery and risk management alongside production skills.

The competence perspective also clarifies why youth support must be staged. Beginners need opportunity identification, confidence building and simple business planning; emerging entrepreneurs need finance, market validation and operational management; established enterprises need scaling, branding, quality assurance and network development. Such differentiation is consistent with evidence that youth engagement is constrained by a mix of economic, institutional and behavioural factors rather than by a single deficit (Mulema *et al.*, 2021; Ofosu-Appiah *et al.*, 2025)^[19, 20]. Extension systems can therefore improve effectiveness by assessing enterprise readiness before training and by matching advisory support to the stage of the venture.

The literature further suggests that career orientation should be linked with enterprise demonstration. General messages that agriculture is important may have limited influence when youth continue to observe unstable prices, fragmented markets or low-return production around them. Exposure to viable enterprises, transparent cost and return information, and discussion with practicing agripreneurs can make the opportunity structure more concrete. Such exposure is particularly important where family expectations and social status influence occupational choice (Girdžiūtė *et al.*, 2022; Henning *et al.*, 2022)^[11, 13]. Extension educators can therefore combine motivational communication with enterprise feasibility exercises so that aspiration is grounded in realistic local evidence.

The Indian extension context also supports linking entrepreneurial orientation with locally available support services. Training programmes become more actionable when learners know where to obtain technical backstopping, certification guidance, incubation, credit counselling and

market information after the course. The institutional profiling reported by Kademani *et al.* (2024)^[15] showed that promoting organizations already perform several of these functions, although the intensity of support differs across service areas. An extension curriculum can therefore include a local entrepreneurial resource map that identifies institutions, schemes, laboratories, financial agencies, producer organizations and market actors relevant to the proposed enterprise. This mapping exercise turns institutional awareness into a practical planning tool and encourages learners to build networks before problems arise. Competency assessment also provides a useful basis for individualized support. A learner with strong technical ability but weak marketing competence requires a different intervention from one who can identify markets but lacks production discipline or financial records. The multidimensional nature of agripreneurial competency reported by Panigrahi *et al.* (2025)^[21] supports a diagnostic approach in which training needs are mapped before enterprise development begins. This can improve training efficiency and reduce the common mismatch between standardized course content and the diverse needs of farm, livestock, processing and service enterprises.

Experiential extension education and technology-enabled learning

Entrepreneurship education was most persuasive when learning was action oriented. Experiential approaches allow learners to test ideas, interact with customers, solve real problems and receive feedback under conditions that resemble enterprise uncertainty. Problem-based learning, simulation, mentoring, internships and reflective practice have been recommended because they move learners from knowing about entrepreneurship to practicing entrepreneurial judgement (Peschl *et al.*, 2020; Hardie *et al.*, 2022; Sarasvathy, 2023)^[12, 22, 25]. This is particularly relevant to agriculture, where production cycles, biological risk, seasonality and market fluctuations require repeated decision making rather than one-time classroom instruction. Recent evidence from Indian agripreneurship training reinforces this conclusion. Participants in Agri-Clinics and Agri-Business Centres training valued exposure visits, case studies, presentation skills and enterprise planning, while the study also identified market fluctuation, social stigma and climate uncertainty as important constraints (Kumari *et al.*,

2024)^[16]. Such findings suggest that extension education should combine enterprise planning with direct exposure to functioning ventures, local market assessment and guided preparation of bankable business plans. Mentoring by experienced agripreneurs can add tacit knowledge that is difficult to transmit through lectures alone.

Digital tools can strengthen these approaches when they support market intelligence, financial recording, communication, advisory access and customer engagement. Technology should, however, be integrated with pedagogy rather than treated as a substitute for field experience. Entrepreneurship education research indicates that digital tools are most useful when they support creativity, problem solving, collaboration and evaluation of business ideas (Pinto *et al.*, 2024; Wardoyo *et al.*, 2023)^[23, 28]. Extension institutions can apply this principle through blended learning, mobile advisory, online mentoring, digital market tracking and enterprise dashboards connected with regular field follow-up.

The reviewed literature also indicates that entrepreneurship learning should be assessed through performance tasks rather than attendance alone. Useful indicators include the ability to identify a customer problem, prepare a feasible enterprise budget, calculate a break-even point, compare alternative marketing channels, maintain records and revise a business model after feedback. These tasks mirror the adaptive learning emphasized in entrepreneurship pedagogy (Malywanga *et al.*, 2020; Peschl *et al.*, 2020)^[18, 22]. In agricultural settings, assessment can be strengthened by requiring learners to test a small enterprise component, conduct a local market survey or complete a supervised value-addition exercise before receiving advanced incubation support. Faculty and extension personnel also need facilitation skills for this form of learning. Traditional subject-matter expertise remains necessary, but enterprise education requires educators to guide experimentation, connect learners with specialists and help interpret failure as information for redesign. Programmes that combine technical instructors, business mentors, bankers, buyers and successful entrepreneurs can expose learners to the multiple decisions involved in venture creation. This multidisciplinary orientation is consistent with the wider evidence that entrepreneurial learning improves when knowledge is connected across technical, managerial and social domains (Hou *et al.*, 2022; Pinto *et al.*, 2024)^[14, 23].

Table 1: Extension education pathways for profitable agripreneurship

Pathway	Capability developed	Extension action	Expected enterprise effect
Opportunity orientation	Opportunity recognition and enterprise choice	Local value-chain scanning, success cases, market mapping	Better fit between enterprise idea and local demand
Business competence	Planning, costing, finance, marketing and risk management	Business-plan clinics, record keeping, pricing exercises, financial literacy	Improved viability and decision quality
Experiential learning	Problem solving, confidence and adaptive judgement	Exposure visits, mentoring, simulation, internships, enterprise projects	Faster conversion of knowledge into practice
Technology use	Digital communication, information access and market intelligence	Mobile advisory, digital marketing, e-records and blended training	Timelier decisions and wider market reach
Incubation and networks	Resource mobilization, commercialization and collaboration	Incubation, pitching support, certification, co-working and expert networks	Reduced start-up barriers and stronger enterprise survival
Post-training support	Adaptation, scaling and resilience	Follow-up visits, peer networks, credit and buyer linkage, troubleshooting	Continuity, value addition and growth

Source: Narrative synthesis of the reviewed literature, including Kademani *et al.* (2024)^[15], Kumari *et al.* (2024)^[16], Panigrahi *et al.* (2025)^[21] and Vineeta *et al.* (2026)^[27].

Institutional ecosystem, finance and market linkages

Competence and training produced stronger outcomes when embedded in an enabling institutional ecosystem. Agri-entrepreneurship promoting institutions in India have emphasized training, branding, pitching, certification and co-working support, demonstrating that entrepreneurship development increasingly requires coordinated services rather than isolated courses (Kademani *et al.*, 2024) ^[15]. University entrepreneurship centres, technology business incubators and extension organizations can jointly provide technical validation, business mentoring, networking, access to laboratories and support for commercialization (Ahamat *et al.*, 2021; Pinto *et al.*, 2024) ^[12, 23]. These functions are particularly important for farm enterprises because entrepreneurs often need to coordinate biological production, quality standards, logistics and market relationships simultaneously.

Finance and market access remained recurrent constraints. Youth agripreneurs frequently face difficulties in obtaining start-up capital, collateral, land and reliable buyers, while market volatility can quickly undermine otherwise sound production decisions (Mulema *et al.*, 2021; Adeyanju *et al.*, 2023; Ofosu-Appiah *et al.*, 2025) ^[1, 19, 20]. Extension agencies cannot replace financial institutions, but they can reduce information asymmetry by helping entrepreneurs prepare realistic cost-return projections, maintain records, understand credit products and connect with producer organizations, incubators, buyers and government schemes. Market linkage should also precede expansion decisions so that production targets are based on verified demand rather than optimism alone.

Profitability is therefore best understood as the outcome of a connected pathway rather than a single training event. Opportunity identification must be followed by competence development, enterprise testing, resource mobilization, market linkage and continuing advisory support. Value addition and diversification can improve income opportunities, but only when entrepreneurs understand quality, customer requirements, pricing and logistics. The growing research base on agricultural entrepreneurship and entrepreneurial behaviour confirms the need for integrated approaches that connect individual capabilities with institutions and networks (Vineeta *et al.*, 2026) ^[27]. Table 1 summarizes an extension education pathway in which each learning stage is linked to an enterprise function and an intended profitability outcome.

For agricultural universities, this framework implies a shift from stand-alone entrepreneurship courses toward campus-to-market learning systems. Students and rural youth can be supported through multidisciplinary enterprise teams, local problem challenges, incubator-linked projects, field mentoring and post-training follow-up. For extension organizations, the implication is to combine advisory services with facilitation of credit, markets, digital tools and peer networks. Such an approach addresses both sides of the entrepreneurial equation: the capability of the individual and the quality of the ecosystem in which the enterprise operates. Post-training continuity is especially important. Many programmes concentrate resources on the training event even though enterprise problems often become visible only after production begins, credit is used or products enter the market. Follow-up extension can help entrepreneurs interpret records,

respond to price changes, improve quality, negotiate with buyers and decide whether to diversify or scale. This continuing relationship can also identify early signs of business stress and connect the entrepreneur with specialized technical or financial support. The value of such coordinated support is consistent with evidence that youth entrepreneurship is constrained by interdependent financial, social and institutional barriers (Adeyanju *et al.*, 2023; Ofosu-Appiah *et al.*, 2025) ^[1, 20].

A profitable-farming orientation therefore changes the expected outcome of extension education. The endpoint is not simply knowledge gain or adoption of a production practice, but an enterprise that can create and retain value under local conditions. This requires attention to unit costs, product differentiation, timing of sales, customer relationships and reinvestment decisions in addition to yield. Value addition may include processing, grading, packaging, direct marketing or service provision, but each option should be evaluated against demand, skills and capital requirements. Extension programmes that integrate these business dimensions with technical advisories are better positioned to support durable agripreneurship than programmes that treat entrepreneurship as a separate motivational topic.

Conclusion

Extension education can make farming more profitable when it develops entrepreneurial capability and connects that capability with real enterprise opportunities. Youth require practical competence in opportunity recognition, planning, finance, marketing, technology use, value addition and risk management, supported by repeated field experience rather than classroom instruction alone. Mentoring, incubation, market intelligence, credit linkage and post-training advisory support are central to converting skills into viable ventures. Agricultural universities and extension organizations therefore need integrated learning ecosystems in which students and rural youth can test ideas, interact with entrepreneurs and buyers, obtain technical and business guidance, and refine enterprises over time. Such an approach strengthens the attractiveness of agriculture as a professional career and improves the likelihood that new farm ventures will generate sustainable income, employment and locally relevant innovation.

Declarations

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References

1. Adeyanju D, Mburu J, Gituro W, Chumo C, Mignouna D, Mulinganya N. Harnessing the job creation capacity of young rural agripreneurs: a quasi-experimental study of the ENABLE program in Africa. *Soc Sci Humanit Open*. 2023;9:100791.DOI:10.1016/j.ssaho.2023.100791.
2. Ahamat A, Sharif SM, Ali MSS, Masrom NR, Aziz CNA. Examining the characteristics of academic entrepreneurs: the case of Malaysian technology driven university. *J Tech Educ Train*. 2021;13(2).DOI:10.30880/jtet.2021.13.02.007.
3. Ajekwe CC, Ibiame A. Entrepreneurship through agriculture in Nigeria. *Bus Manag Res*. 2020;9(1):35.DOI:10.5430/bmr.v9n1p35.
4. Ataei P, Ghadermarzi H, Karimi H, Norouzi A. The barriers hindering the application of the value chain in the context of rural entrepreneurship. *J Agric Educ Ext*. 2020;26(4):365-382.DOI:10.1080/1389224X.2020.1726780.
5. Ayyildiz B, Erdal G, Çiçek A, Ayyıldız M. Factors influencing rural youth's tendency to stay in agriculture in Türkiye. *Sustainability*. 2025;17(8):3313.DOI:10.3390/su17083313.
6. Chipfupa U, Tagwi A. Youth's participation in agriculture: a fallacy or achievable possibility? Evidence from rural South Africa. *S Afr J Econ Manag Sci*. 2021;24(1).DOI:10.4102/sajems.v24i1.4004.
7. Daudu AK, Abdoulaye T, Bamba Z, Shuaib SB, Awotide BA. Does youth participation in the farming program impact farm productivity and household welfare? Evidence from Nigeria. *Heliyon*. 2023;9(4):e15313.DOI:10.1016/j.heliyon.2023.e15313.
8. Deng W, Wang J. The effect of entrepreneurship education on the entrepreneurial intention of different college students: gender, household registration, school type, and poverty status. *PLoS One*. 2023;18(7):e0288825.DOI:10.1371/journal.pone.0288825.
9. Fiedler Y. Empowering young agri-entrepreneurs to invest in agriculture and food systems. Rome: Food and Agriculture Organization of the United Nations; 2020.DOI:10.4060/cb1124en.
10. Geza W, Ngidi MSC, Ojo TO, Adetoro AA, Slotow R, Mabhaudhi T. Youth participation in agriculture: a scoping review. *Sustainability*. 2021;13(16):9120.DOI:10.3390/su13169120.
11. Girdžiūtė L, Besusparienė E, Nausėdienė A, Novikova A, Leppälä J, Jakob M. Youth's (un)willingness to work in agriculture sector. *Front Public Health*. 2022;10:937657.DOI:10.3389/fpubh.2022.937657.
12. Hardie B, Lee K, Highfield C. Characteristics of effective entrepreneurship education post-COVID-19 in New Zealand primary and secondary schools: a Delphi study. *Entrep Educ*. 2022;5(2):199-218.DOI:10.1007/s41959-022-00074-y.
13. Henning JIF, Matthews N, August MM, Madende P. Youths' perceptions and aspiration towards participating in the agricultural sector: a South African case study. *Soc Sci*. 2022;11(5):215.DOI:10.3390/socsci11050215.
14. Hou F, Su YP, Qi M, Chen J, Tang JY. A multilevel model of entrepreneurship education and entrepreneurial intention: opportunity recognition as a mediator and entrepreneurial learning as a moderator. *Front Psychol*. 2022;13:837388.DOI:10.3389/fpsyg.2022.837388.
15. Kademani S, Nain MS, Singh R, Roy SK. Analysis and profiling of agri-entrepreneurship promoting institutions. *Indian J Ext Educ*. 2024;60(1):35-40.DOI:10.48165/IJEE.2024.60107.
16. Kumari A, Jirli B, Singh P, Roy P. Assessing the utility of Agri Clinic and Agricultural Business Center training contents for agripreneurs. *Indian J Ext Educ*. 2024;60(1):20-24.DOI:10.48165/IJEE.2024.60104.
17. Li Y, Cao K, Jenatabadi HS. Effect of entrepreneurial education and creativity on entrepreneurial intention in college students: mediating entrepreneurial inspiration, mindset, and self-efficiency. *Front Psychol*. 2023;14:1240910.DOI:10.3389/fpsyg.2023.1240910.
18. Malywanga J, Shi Y, Yang X. Experiential approaches: effective pedagogy "for" entrepreneurship in entrepreneurship education. *Open J Soc Sci*. 2020;8(2):311-324.DOI:10.4236/jss.2020.82024.
19. Mulema J, Mugambi I, Kansime MK, Chan HT, Chimalizeni M, Pham TX, et al. Barriers and opportunities for the youth engagement in agribusiness: empirical evidence from Zambia and Vietnam. *Dev Pract*. 2021;31(5):690-706.DOI:10.1080/09614524.2021.1911949.
20. Ofosu-Appiah S, Boahen PAN, Agbenyegah AT. Socio-ecological barriers to youth entrepreneurship in sub-Saharan Africa: a systematic review of empirical evidence. *J Innov Entrep*. 2025;14(1).DOI:10.1186/s13731-025-00484-x.
21. Panigrahi SP, Ghadei K, Maji S, Nikhil J, Gupta RP, Singh J. Dimensions and correlates of agripreneurial competency. *Indian J Ext Educ*. 2025;61(1):37-41.DOI:10.48165/IJEE.2025.61107.
22. Peschl H, Deng C, Larson N. Entrepreneurial thinking: a signature pedagogy for an uncertain 21st century. *Int J Manag Educ*. 2020;19(1):100427.DOI:10.1016/j.ijme.2020.100427.
23. Pinto P, Vinish P, Pinto S, Hawaldar IT. Unveiling the entrepreneurial mindset: exploring orientation and intentions among students of prominent engineering disciplines. *J Innov Entrep*. 2024;13(1).DOI:10.1186/s13731-024-00390-8.
24. Ryan M, Jansen M, Nielsen J, Gruère G, Antón J, Asai M. Labour and skills shortages in the agro-food sector. OECD Food Agric Fish Pap. 2023.DOI:10.1787/ed758aab-en.
25. Sarasvathy SD. Questions worth asking for futures worth making: an effectual approach. *Small Bus Econ*. 2023;61(1):11-23.DOI:10.1007/s11187-023-00747-5.
26. Umeh NG, Nwibo SU, Nwofoke C, Chidi I, Ezech AN, Mbam NB. Socio-economic determinants of agripreneurship choice among youths in Ebonyi State, Nigeria. *J Agric Ext*. 2020;24(1):24-33.DOI:10.4314/jae.v24i1.3.
27. Vineeta, Prusty AK, Padhy C, Raj RK, Ray S. Global knowledge structure of agricultural entrepreneurship and entrepreneurial behaviour research: a bibliometric analysis. *Indian J Ext Educ*. 2026;62(3):7-14.DOI:10.48165/IJEE.2026.62302.
28. Wardoyo C, Narmaditya BS, Handayati P, Fauzan S, Prayitno PH, Sahid S, et al. Determinant factors of entrepreneurial ideation among university students: a systematic literature review. *Heliyon*. 2023;9(6):e17227.DOI:10.1016/j.heliyon.2023.e17227.