

# InnoPulse FBM: A Fusion of Business Innovation

Innovation Unit, Faculty of Business and Management Universiti Teknologi MARA Cawangan Johor



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## FOREWORD BY HEAD OF FACULTY OF BUSINESS AND MANAGEMENT



In 2023, the Faculty of Business and Management took the initiative to combine innovation reports involving faculty members, known as InnoPulse FBM: A Fusion of Business Innovation. The InnoPulse FBM: A Fusion of Business Innovation is the first and pioneer 2022/2023 involving faculty members. The first edition of this e-book would not have been possible without the team's energy, effort, and expertise. I am delighted to write this foreword in appreciation to the teamwork and efforts of all Innovation Unit FBM committee members. My wholeheartedly thank you for this excellent e-book.

In addition, my gracious appreciation to the Rector of UiTM Cawangan Johor, Associate Professor Dr. Saunah Zainon and Associate Prof. Madya Dr. Akmal Aini binti Othman, Deputy Rector of Academic Affairs for her distinctive support, the editorial board as well as all the authors, reviewers, language editors, and graphic designers and the support staffs from BPJI&A who have contributed directly and indirectly in the publication of this issue.

I hope the readers find this e-book informative, useful, practical, and relevant for their references. As always, I am grateful to all my family, friends, and colleagues, whose encouragement means everything.

Thank you.

**DR. NOR HAZILA ISMAIL** Head of Faculty of Business and Management Faculty of Business and Management Universiti Teknologi MARA Cawangan Johor

## PREFACE

In the year 2023, the Faculty of Business and Management initiated a significant endeavour by leading the compilation of innovation reports contributed by our recognised faculty members. The outcome of this undertaking led to the establishment of the InnoPulse FBM: A Fusion of Business Innovation. The InnoPulse FBM: A Fusion of Business Innovation is a pioneering publication that showcases the range of innovative endeavours, achievements, and successes accomplished by our dedicated faculty members throughout the academic year 2022-2023. This publication serves as evidence of the combined competence, collective strength, and innovation that define our Faculty of Business and Management.

In this issue, we are thrilled to present a collection of innovation reports that have emerged victorious from IID (Invention, Innovation, and Design) national and international competitions, where they were awarded gold and silver medals. These competitions are unique in that they bring together the collaborative genius of both students and faculty members, offering compelling conviction, innovative viewpoints, and scholarly proficiency.

The innovative issues showcased within these pages span across a diverse spectrum, with a specific focus on teaching and learning and community services that cater to the contemporary needs of society and industries. Furthermore, apart from the innovative insights offered by the IID competitions, we also explore the domain of innovation in teaching and learning in the classroom.

It is hoped that the contents of this e-book will not only inform and educate but also ignite one's creative spark. May it serve as a source of inspiration and drive one to embrace innovation in their own endeavours.

# INNOVATION COMPETITION & AWARD

#### ENHANCING STUDENTS' ENGAGEMENT VIA ONLINE WEBINAR

#### ZANARIAH ABDUL RAHMAN, SYAIDATUL ZARINA MAT DIN, ZAIRA MOHD NOR, AKMAL AINI OTHMAN

#### Introduction

Various distance learning methods have been adopted by academicians to capture students' attention and ensure that students can still benefit the most from lectures. Lecturers must ensure that they can educate students creatively. Effective teaching requires thoroughness and works best in collaborative communication. Therefore, involving students and encouraging them to be hands-on in expressing their ideas is the most effective approach, especially when using Online Webinar as one of the tools to enhance students' engagement.

#### Issue

For the past few semesters, various distance learning methods have been adopted by academicians to capture students' attention and ensure that the latter will gain knowledge and experience from their lecturers. Lecturers must ensure that they can educate the students, and this must be done creatively. Many have encountered challenges in maintaining optimal student's participation in online learning. Effective teaching requires thoroughness and is successful through collaborative communication. Therefore, utilizing an online webinar can be an effective approach to engaging students and enhancing their attention and involvement.

#### Output

Two online webinars were successfully conducted for the semester of 20224. The online webinars were led by Digital Marketing Students (Part 3), and the audience consisted of business program students from various parts. The first online webinar focused on the topic of "Burnout or Lost Passion". It addressed students' hectic lives and helped them identify the difference between the two. Audiences were encouraged to participate in the games provided at the end of each session.

The second webinar was centered around "Building Social Skills". Its purpose was to assist students in recognizing ways to interact with others and develop their social skills at the university. Building social skills is important for students because it equips them with the tools they need to thrive academically, socially, and emotionally. These skills are not only valuable during their school years but also for their future years.

#### Impact

Feedback from the students and the audience showed positive responses. The feedback we received on Telegram consistently highlights the program's strengths. Comments such as 'This program was incredibly informative and fun,' 'I learned so much,' and 'Thank you for this enlightening experience' echo the sentiments of an engaged and satisfied audience. These testimonials reaffirm our commitment to delivering content that is both meaningful and impactful.

The post-event survey also revealed that all students who were involved in organizing the webinar rated the program as excellent and found it to be a good and significant experience for them. They were pleased to share valuable information with the audiences.

Therefore, in this program, students' engagement has significantly increased. Through various interactive activities and effective teaching methods, students have become more actively involved in their learning. This heightened engagement has resulted in improved academic performance and a more vibrant and enthusiastic classroom environment.

#### Knowledge application on innovation

This project is unique and different from the traditional webinar or in-class lecture. It requires students to become the organizer and the presenter at the same time. Students will study the topics, conduct their own research, and act as informative providers of the topic. Students choose a topic related to the audience's needs and aim to deliver an interesting experience to the audience. All students will take on roles as committee members, panelists, moderators and so on, thus potentially achieving 100% involvement from them.

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#### SULAM FOR INV 621 V1

#### NIK NUR SHAFIKA MUSTAFA, AHMAD SYAHMI AHMAD FADZIL, ROHANIZAN MD LAZAN, NURUL HAIDA JOHAN, SYAMSYUL SAMSUDIN

#### Introduction

An innovation competition, also known as an innovation challenge or contest, is an organized event or program designed to encourage individuals, teams, or organizations to generate creative and novel solutions to specific problems or challenges. We participated in the Educational Design Games Invention and Innovation Competition 2022 organized by the Academy of Language, Universiti Teknologi MARA Pasir Gudang, Johor.

#### Issue

As at September 2022, the issue of achieving or not achieving the 30 percent target for Bumiputera (ethnic Malay and indigenous people) equity ownership in Malaysia was a significant and ongoing topic of discussion in the country. This target has been a key component of Malaysia's affirmative action policies, which aim to address economic disparities among different ethnic groups, particularly between the majority Malays and indigenous people (Bumiputera) and the ethnic Chinese and Indian populations.

#### Output

Community-based learning is an educational approach that involves the community as an integral part of the learning process in the equity market. It typically aims to empower and train community members by providing them with knowledge, skills, and resources to address local challenges and improve their quality of life. One example of such initiative is the community-based learning namely Service-Learning Malaysia-University for Society (SULAM).

Under this program, students engage with the community for 3 months. They facilitate coaching sessions for a lower income community (B40 group), sharing their knowledge and skills related to investment, with a specific focus on the stock market. This program helps the community in generating income through the SULAM program methods. Thus, it aligns with the objective of the Ministry of Higher Education for Service-Learning Malaysia University for Society.

#### Impact

SULAM is capable of enhancing the sense of social responsibility, religious and racial tolerance as well as developing 21st century skills such as the ability to work well with others, critical thinking skills and creative, leadership and communication skills. Community engagement is a vital aspect of student and academic life at Malaysian Higher Learning Institutions (HLIs). It deepens academic learning, builds stronger relationships beyond the campus, and prepares students more effectively for their post-HLI endeavors. Integrating community engagement into the university curriculum creates an educational environment where students not only develop academically but are transformed personally and professionally. It will also work towards instilling the culture of happiness, love and mutual respect in HLIs in a bid to create a fun and positive learning environment.

#### Knowledge Application and Innovation

Transforming conventional teaching to effectively transfer knowledge to a community requires a student-centered, culturally sensitive, and community-driven approach. It is about empowering individuals within the community to acquire the knowledge and skills they need to improve their lives and address their unique challenges.



#### SULAM FOR INV 621 V1

# AHMAD SYAHMI AHMAD FADZIL, ROHANIZAN MD LAZAN, NURUL HAIDA JOHAN, NIK NUR SHAFIKA MUSTAFA, SYAMSYUL SAMSUDIN

#### Introduction

Service-Learning Malaysia-University for Society (SULAM) appears to be an initiative related to service-learning in Malaysia. Service-learning is an educational approach that combines community service with academic learning, allowing students to apply their classroom knowledge to real-world situations while addressing community needs. SULAM is capable of enhancing the sense of social responsibility, religious and racial tolerance as well as developing 21st century skills such as the ability to work well with others, critical thinking skills and creative, leadership and communication skills.

#### Issue

SULAM INV 621 program involved students sharing their knowledge with the communities for three (3) months. SULAM activities focused on helping students to develop the knowledge, skills, values, and motivation to make a difference in the civic life of communities.

#### Output

Each group of students is required to provide coaching to the community as part of their participation in SULAM activities. Their role involves facilitating and coaching community members, particularly those in the lower-income B40 group, in acquiring knowledge and skills related to stock market investment. This, in turn, assisted the community in generating income in line with the objectives of the Ministry of Higher Education for the Service-Learning Malaysia University for Society program.

#### Impact

By developing the SULAM project, we believe in successfully engaging the students through three aspects of teaching:

- Affective engagement refers to students' feelings, their sense of acknowledgement and belonging through their relationship with peers during the SULAM project.
- Behavioral engagement follows from students knowing/comprehending what is expected of them, what they can and should do, and feeling encouraged to take initiative during executing the SULAM project.
- Cognitive engagement refers to the intrinsic motivation and interest that students have in their study, as well as the extent to which they use self-regulation strategies such as planning, goal setting and self-monitoring during executing the SULAM project.

Further details on the impact can be monitored through the students and the community's feedback on the sub sections below.

#### Students Feedback – SULAM INV 621

# STUDENT'S FEEDBACK

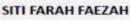


#### MUHAMMAD ZUHAIR JUMAT

I enjoy sharing my knowledge with the community regarding the stock market. I am happy that the community was able to understand the lectures and videos. Besides, this program also helps me improve my communication skills, as I need to converse professionally with the community.

#### MUHAMMAD HAZIQ FITRI

Applying the knowledge was one of the most challenging parts of this program. Having a supportive lecturer and friends helped me a lot. This program helped me better understand what I have learned during my degree. I also realized that it is not easy to teach people but with determination and faith, we can all do it.



I Was quite shy when dealing with people and investment was never my forte. However, due to this program I was able to overcome it and be confidence when presenting to the community. Sometime having a SULAM program can be an external force to push us so that we can seize our fear.



#### **IBRAHIM SETH**

The best part of this program for me is when I am able to answer all the questions asked by the community. Doing so gives me satisfaction as I am able to help them truly absorb all the knowledge. I once received a difficult question and this made me improve my knowledge and facts regarding investment.

#### **RABIATUL HUSNA**

One of the things I wish I could improve is to create more creative and shorter videos for the community. Last time, my group recorded lecture videos for 2 hours per session and this was quite tiring for the community to watch. However, we encountered this by making Q&A sessions so that we can always guide them.

Figure 1: Students' Feedback

#### SULAM FOR INV 621 V1

#### **Community Feedback**

Feedback from the community is derived from a sample of 20 communities that participated in the SULAM Program between October 2021 and January 2022.

#### 1. Content and topic of training activities – SULAM

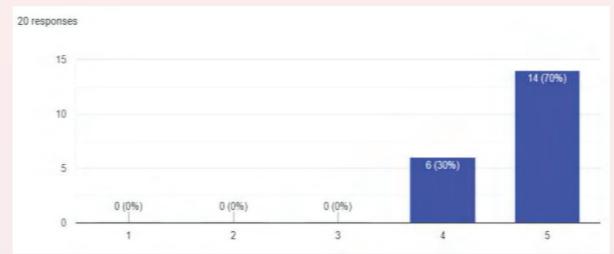


Figure 2: Community's feedback regarding content and topic of training activities of SULAM

Based on the results, 70 percent of the community claimed that the program's content and topic are very good. Another 30 percent rated the program as good.

#### 2. Suitable program content

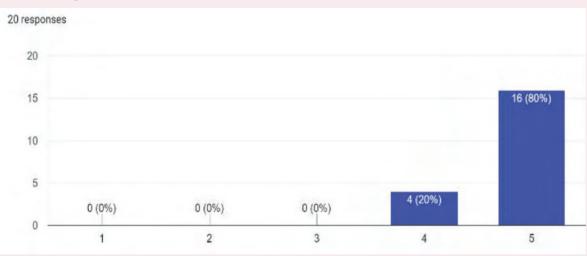
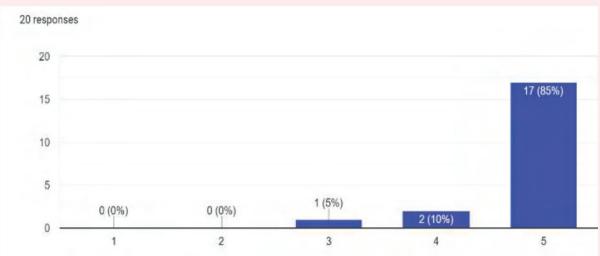


Figure 3: Community's feedback regarding suitable program content

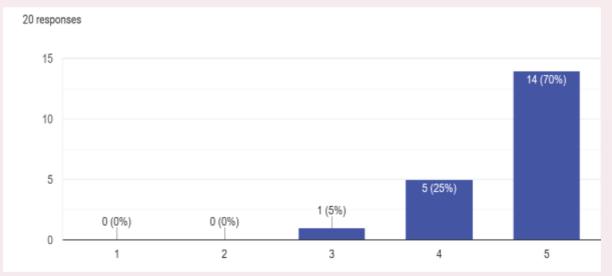
Based on the findings, 80 percent of the participants evaluated the program's content as very good and suitable for beginners and another 20 percent rated it as good.



#### 3. Method used for this program

Figure 4: Community's feedback regarding Method used for this program

Of the participants, 17% assessed the SULAM INV 621 program's methodology and knowledge sharing as 5 (Very Good), 10% rated it as 4 (Good), and the remaining 5% rated it as moderate.

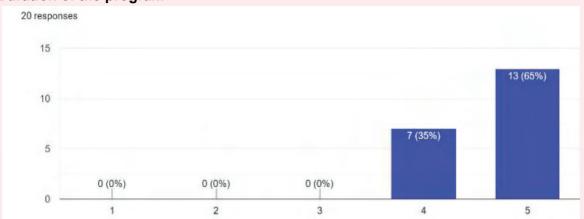


#### 4. Module provided

Figure 5: Community's feedback regarding module provided

Based on the results, 70 percent thought that the program's books/modules were very good. 25 percent considered that the module to be good, and 5 percent felt they were moderate.

#### SULAM FOR INV 621 V1



#### 5. Duration of the program

Figure 6: Community's feedback regarding duration of the program

Based on the findings, 65 percent claimed that the duration given in the program was good and sufficient for completion.

#### 6. Overall, the program is successful and beneficial

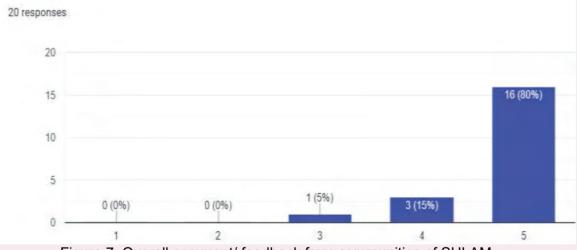


Figure 7: Overall comment/ feedback from communities of SULAM

Overall, 80 percent of the community agreed that the overall performance of the program was very successful and beneficial to society. Another 15 percent mentioned that the program is good and only 5 percent rated it as average feedback.

#### Knowledge Application on Innovation

SULAM INV621 plays a pivotal role in fostering innovation among participating students and communities. By integrating classroom learning with real-world challenges, students are encouraged to identify novel solutions to the financial empowerment needs of lower-income communities. They utilize their understanding of stock market investment and financial principles to tailor strategies that resonate with the specific circumstances of these communities. Moreover, students are encouraged to engage in critical thinking, problem-solving, and adaptability, which are essential components of innovation. Through their hands-on involvement with the community, students not only enhance their own innovative

thinking but also contribute to the innovative capacity of the program, potentially leading to sustainable solutions and positive social impacts.

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	PROFESSOR DR. YAMIN YASIN
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#### SULAM FOR INV 621 V1

#### NURUL HAIDA JOHAN, AHMAD SYAHMI AHMAD FADZIL, NIK NUR SHAFIKA MUSTAFA, ROHANIZAN MD LAZAN, SYAMSYUL SAMSUDIN

#### Introduction

Innovation competitions play a crucial role in promoting innovation, addressing societal challenges, fostering entrepreneurship, and advancing various industries. They provide a structured platform for individuals and organizations to showcase their innovative ideas and solutions while offering valuable learning and networking opportunities.

We participated in the 4th Virtual International Breakthrough Invention, Innovation, Design Exhibition (VI-BIIDE 2022) on 25 May 2022. The exhibition is the best platform to showcase the academics, professionals, and students' inventions, innovations and designs.

#### Issue

Equity for Bumiputera (ethnic Malays and indigenous people) has been a long-standing and complex issue in Malaysia, stemming from the country's affirmative action policies. These policies were implemented to address economic disparities and social inequality among different ethnic groups, particularly between the majority of Malays and the ethnic Chinese and Indian populations.

The achievement of the 30 percent equity target for Bumiputera in Malaysia is influenced by various factors, including investment in the equity market. The lack of significant Bumiputera participation in the equity market can indeed be a challenge in reaching this target.

#### Output

The goal of a successful educational program and thus effective curriculum development should be to meet the needs and current demands of the culture, the society, and the expectations of the population being served. Therefore, curriculum development and the educational reform process continually undergo review, revision, and constant change (Johnson, 2001). After launching a new degree program BBA (Hons) Management at UiTM Johor, we started to develop this teaching and innovation project for online trading activities. Now, the product is extended to the community by Service-Learning Malaysia-University for Society (SULAM)-INV 621 Project. Under SULAM, students facilitate and coach communities in the lower income (B40 group) to acquire knowledge and skills for investment with a focus on the stock market. This program helps the community to in generating income based on SULAM program methods. Thus, it fulfills the objective of the Ministry of Higher Education for Service-Learning Malaysia University for Society.

#### Impact

The impact for SULAM-INV621 program is a bearing educational experience. Students participate in a structured service activities designed to meet identified community needs. The students reflect on these service activities and experiences to achieve desired learning outcomes. Through this process, they gain a deeper understanding of course content, a broader appreciation of the discipline, and an enhanced sense of personal values and civic responsibility.

SULAM's pedagogy supports for humanistic and value-driven education, which is the key to strengthen our education system by integrating love, happiness and mutual respect. For the community, it serves as a platform to learn about stock investing and potentially engage in investment that can generate additional income.

Malaysian Qualifications Framework (MQF) (MQF 2.0):	Cognitive Skill (LOD2)	By conducting the SULAM activities, the students will apply the cognitive skills and higher thinking order skills. Experiential learning for SULAM is the process whereby knowledge is
Taxonomy Domain:	(HOTS) Higher Thinking Order Skill (HOTS) Higher Thinking Order Skill (HOTS) Higher Thinking Order Skill (Knowledge results from combination of grasping transforming the experience.	

Table 1: Learning Outcomes That Were Measured and Evaluated

#### Knowledge Application and Innovation

Knowledge Application based on SULAM Program is an innovation towards a strategic approach aimed at effectively applying knowledge, fostering innovation, and promoting the transfer of knowledge from one context to another within a structured program or initiative. This approach recognizes that knowledge alone is not sufficient; it must be actively applied and adapted to create innovative solutions and drive progress.



#### SULAM FOR INV 621

#### SYAMSYUL SAMSUDIN, NIK NUR SHAFIKA MUSTAFA, NURUL HAIDA JOHAN, ROHANIZAN MD LAZAN, MAIZURA ISA, FERRI NASRUL

#### Introduction

Innovation competitions play a crucial role in driving innovation, fostering creativity, and addressing a wide range of challenges. They offer a structured platform for individuals and teams to showcase their innovative ideas and solutions while contributing to personal and societal growth.

We participated in Sabah International Virtual Innovation & Invention Competition on January 13, 2022. Sabah International Virtual Innovation and Invention Competition (SIVIIC), with the theme "Turning Covid-19 Uncertainty into Opportunity" provides inventors and innovators a powerful platform to showcase their latest inventions, products, and designs. The exhibition of innovative ideas and products gives participants a window of opportunity to connect with industry players, paving the way for future collaboration and commercialisation.

#### Issue

Malaysia goal of achieving 30 percent Bumiputera (ethnic Malay and indigenous people) equity ownership in Malaysia has been a longstanding and ambitious target set under the country's affirmative action policies. These policies were introduced to address economic disparities between different ethnic groups in Malaysia, particularly between the majority Malays (Bumiputera) and the ethnic Chinese and Indian populations.

#### Output

Education 5.0 is to focus on outcomes and technology that enable innovations to deliver and tailor education for all students. This innovation, is also known as SULAM for INV 621. This project is extended from the previous innovation which is Applied Investment Management (INV 621): Digital Learning Experience. These Innovations aim to train the community on equities market.

#### Impact

Over the past several decades, colleges and universities have moved away from the traditional chalk-and-talk lecture. Professors have experimented with a myriad of methods to engage students more fully. Some of the innovations that have been used have succeeded in improving student performance and satisfaction. The impact of SULAM for INV 621 program is a bearing educational experience in which the student participates in a structured service activity that meets identified community needs, reflects on the service activity and experiences to achieve desired learning outcomes, in such a way as to gain a deeper understanding of course content, a broader appreciation of the discipline, enhanced sense of personal values and civic responsibility.

SULAM pedagogy supports humanistic and value driven education as key to strengthening our education system by integrating love, happiness and mutual respect. For the community, it helps the community learn about stock investing and can eventually invest in stock that can be turned into additional income.

#### **Knowledge Application and Innovation**

Innovation in teaching that utilizes a transfer knowledge approach focuses on facilitating the effective transfer of knowledge and skills from educators to learners. This approach leverages various strategies and technologies to enhance the learning experience and ensure that learners not only receive information but can also apply it effectively.



#### SULAM FOR INV 621 V1

#### ROHANIZAN MD LAZAN, NIK NUR SHAFIKA MUSTAFA, NURUL HAIDA JOHAN, SYAMSYUL SAMSUDIN, AHMAD SYAHMI AHMAD FADZIL

#### Introduction

Innovation competitions, also known as innovation challenges or contests, are organized events or programs that invite individuals, teams, or organizations to propose and develop creative and innovative solutions to specific problems or challenges. These competitions serve as platforms for fostering innovation, entrepreneurship, and collaboration across various domains.

We participated in the International Sustainability Invention Innovation and Design Showcase 2022 on March 22, 2022. The International Sustainability Invention, Innovation and Design Showcase is a program specially designed to provide opportunities and exposure as well as to highlight the use and application of inventions in a sustainable environment.

The exhibition, which will be conducted with the theme "Pathways to Sustainability Innovation," is expected to provide more input and knowledge on products and inventions and their applications in maintaining a sustainable environment.

#### Issue

The issue of achieving the 30 percent Bumiputera (ethnic Malay and indigenous people) equity ownership target in Malaysia has been a long-standing and complex challenge associated with the country's affirmative action policies. These policies were introduced to address economic disparities between different ethnic groups, particularly the majority Malays (Bumiputera) and the ethnic Chinese and Indian populations. While these policies have led to progress in certain areas, the 30 percent equity target has not been uniformly achieved across all sectors and industries.

#### Output

SULAM INV 621 V1 requires students to dedicate three (3) months to imparting their knowledge in terms of the equity market to the communities. SULAM is a program or organization dedicated to promoting and facilitating service-learning experiences for university students in Malaysia. These experiences typically involve students engaging in various community service projects or activities, often as part of their academic curriculum. Through service-learning, students can gain practical skills, develop a sense of social responsibility, and contribute positively to their communities.

#### Impact

The SULAM INV 621 V1 project offers several impacts to both students and the community. These impacts can include:

- 1. Hands-On Learning: Service-learning allows students to apply their classroom knowledge to real-life situations, providing them with practical experience and enhancing their understanding of academic concepts
- 2. Personal Growth: Students often develop valuable personal skills, such as teamwork, communication, leadership, problem-solving, and empathy, through their service-learning experiences.

- Social Responsibility: SULAM INV 621 V1 projects foster a sense of social responsibility in students by exposing them to community needs and encouraging them to actively contribute to addressing those needs.
- 4. Community Impact: Through SULAM INV 621 V1 project, students have the opportunity to make a positive impact on their local communities by participating in meaningful projects and initiatives.
- 5. Networking: Students can build valuable networks with community members, organizations, and fellow students, which can be beneficial for future career opportunities and community engagement.
- 6. Enhanced Resume: Service-learning experiences can enhance a student's resume by showcasing their commitment to community service, leadership, and practical skills.
- Increased Civic Engagement: Participation in service-learning can encourage students to become more engaged in civic activities and social issues, leading to more informed and active citizens.
- 8. Improved Academic Performance: Some research suggests that students engaged in service learning may experience improved academic performance due to the practical application of knowledge and increased motivation.
- 9. Personal Fulfillment: Many students find a sense of personal fulfillment and satisfaction in knowing they are making a positive difference in the lives of others.
- 10. Community Partnerships: SULAM INV 621 V1 can help forge strong partnerships between universities and local communities, leading to ongoing collaboration and mutual support.

#### Knowledge Application and Innovation

Innovation refers to a process where the students actively apply their acquired knowledge and skills to real-world situations, projects, or challenges. This approach emphasizes practical learning and the integration of knowledge into action to achieve innovative outcomes. Here are the key elements and benefits of this approach:

- 1. Practical Learning: Knowledge transfer activities focus on the practical application of theoretical knowledge. This hands-on approach enables learners to understand how concepts and theories are used in real-life situations.
- 2. Problem Solving: Participants engage in problem-solving activities that require them to apply their knowledge to address specific challenges. This process fosters critical thinking and creativity.
- 3. Innovation: By applying knowledge in new and creative ways, individuals and organizations can generate innovative solutions, products, or processes. This innovation is often a result of thinking outside the box and exploring novel approaches.
- 4. Experiential Learning: Knowledge transfer activities often involve experiential learning, where individuals learn by doing. This active engagement helps solidify understanding and retention of information.



#### 4<sup>TH</sup> VIRTUAL INTERNATIONAL BREAKTHROUGH, INNOVATION & DESIGN EXHIBITION (VI-BIIDE2022)

#### NUR FATIHAH SHAARI, NOR HIDAYAH HASSIM, AHMAD SYAHMI AHMAD FADZIL, NUR AMALINA AZIZ, MUHAMMAD ZULQARNAIN HAKIM ABD JALAL

#### Introduction

Introduction

Our educational system has undergone a significant transformation as a result of the development of technology, which has also improved teaching methods and delivery. The use of technology in the classroom has also significantly boosted student achievement and encouraged their innovative and creative thinking. Prior to this situation, our team had proposed the idea of **"SMART LAC: Viable Learning System"**, which is an "all in one" software system integrated with the three (3) main components for classroom learning: (1) smart lecture; (2) smart attendance; and (3) smart classroom. On May 25, 2022, UiTM Cawangan Pahang Kampus Raub organized the 4th virtual international breakthrough, innovation, and design exhibition (VI-BIIDE2022) through an online platform. Our team seized the opportunity to submit our innovative "SMART-LAC" product in the international competition VI-BIIDE2022, and we won the Silver Medal.

#### Issues

The COVID-19 pandemic has abruptly changed how students are taught and how they learn. Teachers and students must quickly prepare to transition from a physical classroom to a virtual classroom. Despite there being multiple issues and challenges that both sides had to deal with while trying to ensure effective learning through virtual, it nevertheless provided us with many opportunities to grab and be agile in the new digitalized world.

#### Output

SMART-LAC is a software system in which all lecture materials and notes are always accessible to students. When a student appears in front of the camera during an online class, their attendance will be noted. The attendance of the students will now be automatically recorded rather than being tracked in the traditional way. By doing so, it can ease the struggle for the lecturer to keep track of the attendance of the students and enable them to concentrate more on the tasks that are given priority. The shared whiteboard in a smart classroom also enables students to respond without having to write on the board. Everyone can observe how others are working in this technologically enabled learning environment during the lesson.

#### Impact

The results of this SMART-LAC include improved learning outcomes, efficient teaching methods, and increased student focus and participation in the classroom. Students residing in remote locations without connectivity will not be left behind and can access all videos, notes, and tasks using SMART-LAC systems. It is important to prepare for unforeseen circumstances so that our young generation does not miss out on the chance to learn.

SMART-LAC promotes the Sustainable Development Goals (SDG), particularly Goal 4: Quality Education, which aims to ensure that all students receive inclusive and high-quality education, regardless of their background, race, or skin colour.

#### Knowledge Application and Innovation

A cutting-edge piece of software called SMART-LAC can make a significant difference to our educational system and ensure that no student is left behind in the cutting-edge technological world. Every student should have access to a top-notch education that uses the most up-to-date technology in the classroom.



#### SMART-STRATA AND VI-BIIDE2022, UITM PAHANG

#### AHMAD SYAHMI AHMAD FADZIL, NUR FATIHAH SHAARI, NOR HIDAYAH HASSIM, MUHAMMAD ZULQARNAIN HAKIM ABD JALAL, NUR AMALINA AZIZ, AMIR IMRAN ZAINODDIN

#### Introduction

In this fast-paced modern era, creation, innovation, and design have become pivotal in driving the progress of science and technology. As such, we have participated in several innovation programs, including the 4th Virtual International Breakthrough Invention, Innovation & Design Exhibition (VI-BIIDE2022) held at UiTM Campus Raub, Pahang Branch. This program aims to further encourage a culture of research and innovation. The exhibition serves as the optimal platform to showcase academic, professional, and student creations, innovations, and designs in Pahang. It also introduces UiTM Pahang as a university that emphasizes research and innovation. Innovation in the university context not only benefits the institution itself but also the local community and the nation. It plays a crucial role in driving sustainable progress and development.

#### Issue

While Malaysia has legislation governing strata management, there have been concerns that the existing laws are outdated and do not adequately address the complexities of managing high-rise properties. This has led to ambiguities and disputes over interpretation. For instances, the strata management problems in high-rise properties in Malaysia revolve around a lack of awareness among property owners, inadequate regulation, disputes within Strata Management Committees (SMCs), maintenance and repair issues, inefficient dispute resolution mechanisms, aging infrastructure with costly maintenance requirements, concerns with property management companies, security challenges, parking and common area disputes, and issues related to financial transparency. These issues deter the efficient and harmonious management of high-rise properties, impacting the quality of living among the tenants.

#### Output

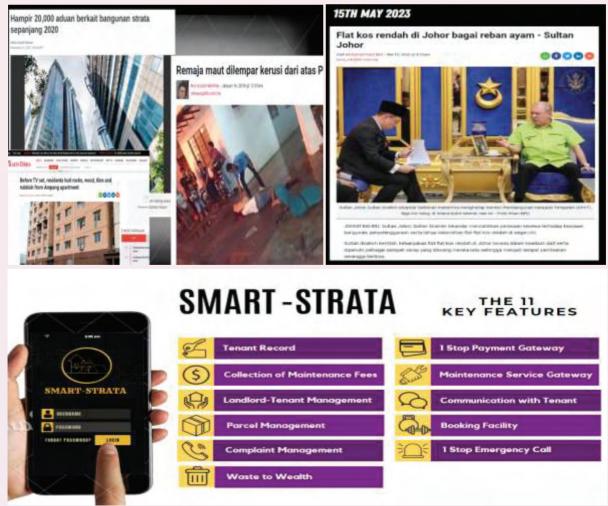
SMART-STRATA is an innovation that serves as a solution to the strata-related challenges faced by homeowners and rental tenants. These integrated strata management system is accessed through a mobile application, making it easier for users to access crucial strata-related information. SMART-STRATA offers a range of cutting-edge functions and features accessible through smartphones. The application provides eleven (11) functions, including (1) Waste to Wealth, (2) 1 Stop Emergency Call, (3) Complain Management, (4) Landlord-Tenant Management, (5) Collection of Maintenance Fees, (6) Booking Facility, (7) Maintenance Service Gateway, (8) Parcel Management, (9) Communication with Tenant, (10) Parcel Management, and (11) 1 Stop Gateway Payment. For instance, homeowners can promptly report damages or any issues through this integrated system. The involved strata management will promptly respond and take necessary actions.

#### Impact

This innovation targets use by homeowners, rental tenants, joint management bodies, and the Ministry of Local Government Development. SMART-STRATA aligns with the Sustainable Development Goals (SDGs), particularly in achieving targets like Goal 11: Sustainable Cities and Communities, Goal 10: Reduced Inequalities, and Goal 3: Good Health and Well-being. Moreover, sustainability elements are emphasized in this innovation, with the mobile application enabling users to integrate the "Waste to Wealth" application, reducing waste and enhancing waste management. With these integrated strata management systems, homeowners, rental tenants, and strata management bodies can handle their strata management more easily and efficiently. The SMART-STRATA innovation has successfully won a bronze medal in the VI-BIIDE 2022 competition.

#### Knowledge Application and Innovation

SMART STRATA can manage and generate valuable data for informed decision-making, offer scalability and customization, and serve as a hub for community engagement. It has the capacity to evolve with emerging technologies, making it a versatile tool with far-reaching applications in strata management, research, and the advancement of smart building solutions. Hence, enhancing the quality of urban living among the tenants.



#### SMART-STRATA: THE PROBLEM-SOLVING APPLICATION OF STRATA MANAGEMENT AT DIIID 2022

#### NUR AMALINA AZIZ, AHMAD SYAHMI AHMAD FADZIL, NUR FATIHAH SHAARI, NOR HIDAYAH HASSIM, MUHAMMAD ZULQARNAIN HAKIM ABD JALAL

#### Introduction

The effort to manage a condominium or flat housing comprising hundreds or thousands of residential units takes work. We often hear that many projects have left management due to a lack of funds due to irregularities or because the project has not paid maintenance fees. Weaknesses in regulatory enforcement also contribute to a lack of maintenance, affecting people's willingness to pay management bills. This does not only happen in one place; it is said that the whole of Malaysia is experiencing the same problem. Strata life is not suitable for those who are selfish and do not want to mix with the community because strata life requires cooperation and shared responsibility to ensure that everyone lives in harmony.

#### Issues

Among the problems that are often faced by residents living in strata is related to excessive maintenance fees that need to be paid where there are usually two types of costs, namely service charges and tied funds. Bonded funds are collected from particular strata owners for future use, such as for cleaning works charges. The next problem is the management that must be borne by the owner himself, such as the responsibility to repair and maintain any equipment in the owner's space unit. All these problems cause many people to choose not to settle in strata. However, considering the economic situation that does not allow, especially for those living in urban areas, the strata life is chosen by many. Can this kind of problem be solved?

#### Output

Enforcement and control changes need to be implemented to ensure that the problem of flat housing management can be easily overcome and not burden the population in today's increasingly expensive global era. Therefore, considering all the issues experienced by the residents of this flat housing, our Group has taken a creative step by innovating the management of flat housing into a platform that can solve management problems sustainably. SMART-STRATA is a solution that can be grabbed by flat housing management. An application equipped with 11 main functions: i) Waste to Wealth, ii) 1 Stop Emergency Call, iii) Complaint management, iv) Owner Management Landlord-Tenant Management, v) Collection of Maintenance Fees, vi) Booking Facility, vii) Maintenance Service Gateway, viii) Parcel Management, ix) Communication with Tenant, x) Tenant Record, xi) 1 Stop Gateway Payment.

#### Impact

SMART-STRATA is an innovation that considers the Sustainable Development Goals (SDGs) in achieving Goal 11: Sustainable urban settlements and communities, Goal 10: Reducing Inequality, and Goal 3: Well-being and Good Health. This innovation, in the form of an application, can make it easier for the management and the owner/tenant to deal with the

management and other organizations, such as waste disposal management through "Waste to Wealth."

#### **Knowledge Application and Innovation**

SMART-STRATA has won the gold medal in the DIIID 2022 competition organized by the UiTM Johor Branch. Although SMART-STRATA failed to get a Diamond medal, SMART-STRATA was successfully nominated in the ten best innovation groups of DIIID 2022. This innovation, in the form of an application, is believed to help various parties in strata management more efficiently and quickly.



#### THE i-HDI MODEL FOR POVERTY ALLEVIATION IN OIC COUNTRIES, UITM PULAU PINANG

#### MAIZURA MD ISA, NOR HAZILA ISMAIL, MAZIDA ISMAIL, NORINTAN WAHAB

#### Introduction

The development of SDGs has allowed us to make another important, general point about poverty other than financial development alone. Poverty is multi-dimensional, where income alone only captures the ability of an individual to buy necessary goods; it does not capture their health, level of education, personal safety, or adequate shelter. These components have been described as the vicious cycle of poverty or "poverty trap". The human development approach inspires a widening of the informational base on poverty by investigating the deprivation of functioning and capabilities that create freedom in a framework that was generated with developing perspectives at its centre. The existing measurement of the human development index (HDI) published by UNDP might be the most comprehensive indicator to measure human development. Yet, it is not fully compatible and enough to measure human development from the Islamic perspective. From an Islamic perspective, human development based on the Magasid Shariah framework consists of five pillars: preservation of Ad-Din (faith). preservation of An-Nafs (Life), preservation of Al-Aql (Intellect), preservation of Al-Nasl (progeny) and Al-Mal (Wealth). Therefore, the current study attempts to propose an Islamic Human Development Index (i-HDI) as a holistic and comprehensive index for human development derived from the five dimensions of Magasid Shariah and then compare this index to measure human development in OIC countries with HDI. This new index and the ranking of countries based on i-HDI will give more accurate and meaningful analytical insights about poverty alleviation in OIC countries.

#### Issue

One of the Sustainable Development Goals (SDGs) is a world of "No Poverty" in 2030; thus, poverty eradication is continuously occurring. Inconsistent findings between financial development and poverty highlight that the poverty problem persists worldwide. Of all, 29 percent of people in the Organisation of Islamic Cooperation (OIC) countries live in poverty.

#### Output

Islamic Human Development Index (i-HDI) is a holistic and comprehensive index for human development derived from the five dimensions of Maqasid Shariah. Compare this index to measure human development in OIC countries with HDI. In addition, it comes with an i-HDI calculator, which allows the user to calculate their Islamic Human Development Index automatically and rectify its level.

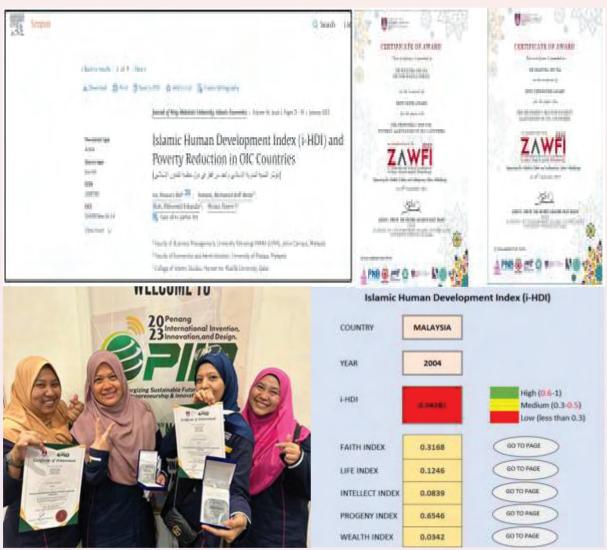
#### Impact

Developing the i-HDI model could give some advantages to policymakers focusing on the five dimensions to enhance human development performance in their country. In addition, the index takes into account the material aspects as well as non-material aspects. I-HDI also provides a simple approach to explain human development from the perspective of Islam to

the non-Muslim world. Besides, the i-HDI model can also act as an alternative measure for socio-economic development in the OIC and non-OIC countries.

#### **Knowledge Application and Innovation**

This i-HDI is applicable as an alternative to the existing HDI that UNDP has produced. It is potentially used to measure human development to help reduce poverty.



# GENERAL ARTICLES ABOUT INNOVATION

#### PAYPLAY MOBILE APPLICATION

#### AMYZATUL SHAHIRAH ZAILAINI, AINA SAFWAH SALEH, AMIRAH AFIQAH KAMARUDIN, NUT IZZATI MOHD NOOR, ZURAIDAH SIPON

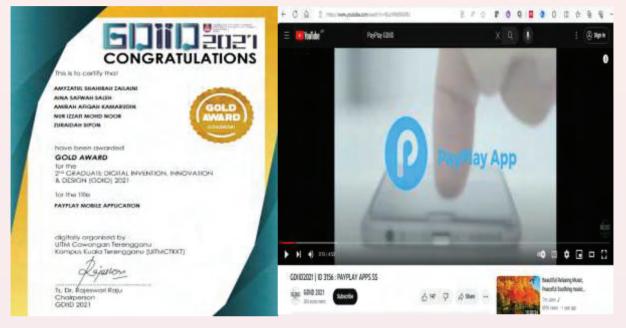
Good knowledge of the basics of finance, consisting of money management, investment, and savings, can develop a strong foundation for financial management in individuals. Learning basic financial management can lead to better money management skills. Young adults, especially, need more exposure to how the financial system operates. Various benefits could be gained by learning financial management, and this will provide an abundance of opportunities in real life. Basic financial practices include consistently tracing spendable income and expenses, recognizing profitable investment opportunities, and identifying compatible prices of goods and services. At the same time, shopping is crucial to having manageable personal finances. As one person says, learning is an ongoing process. Be it schoolchildren or retirees, anyone at any level of age can get benefits from the PayPlay application (PayPlay Apps).

PayPlay Apps is one of the ideas from case study assignments to meet the ongoing assessment needs of semester five students in the Bachelor of Investment Management Program under the code INV613 Asset and Funds Management. With the theme of *Empowering Digitalisation during the Pandemic*, students must identify the latest issues within the theme's scope and then suggest solutions. Students are provided with guidelines similar to the guidelines of the actual innovation competition. By placing several evaluation criteria, such as the ability to identify and solve problems, innovation, the creativity of ideas, and the quality of the video produced, the students go through new experiences in generating innovative ideas. The result of the student's assignment was an abstract with a maximum of 300 words and a maximum of 6 minutes of video presentation.

The project's original goal was to meet the needs of the students' continuous assessment. Still, looking at the potential ideas that resulted, the lecturer took the initiative to bring this idea to the innovation competition. The world was hit by a pandemic at that point, and most innovation competitions turned concepts into digital forms. Graduate Digital Innovation Invention and Design (GDIID), organized by UiTM Terengganu Kuala Terengganu Campus, is a 2-year event that focuses on student participation as a target. Alhamdulillah, a casual experiment came to fruition where PayPlay Apps won the Gold Award. The students were very excited about the awards and certificates of participation they obtained. Indirectly, the success added value to their curriculum vitae. Looking at the very positive effects of the task, the lecturer intends to continue this assignment as one of the continuous assessments as case studies. May they appreciate this learning process and more innovative ideas can be produced in the future.

In addition, PayPlay Apps is a mobile application to help manage and learn basic financial management. It offers quick links to most banks, reputable investment platforms, and lists of reliable retailers across Malaysia. PayPlay Apps provide a systematic approach to managing one's finances, from checking account balances to comparing prices before purchasing and

making wise investment decisions. Therefore, PayPlay Apps is a handy and yet user-friendly tool for everyone. To watch the resulting video, please copy the URL included below.



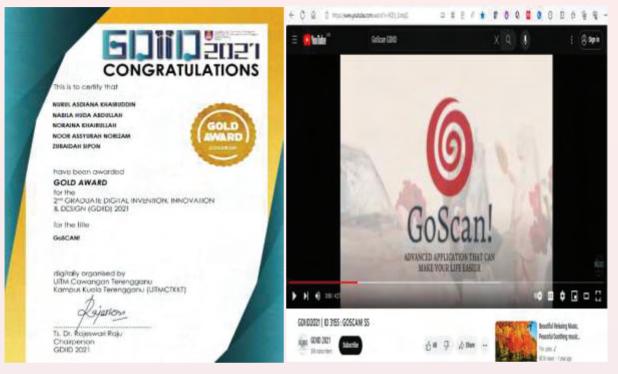
#### GOSCAN!!

# NURUL ASDIANA KHAIRUDDIN, NABILA HUDA ABDULLAH, NORAINA KHAIRULLAH, NOOR ASSYURAH NORIZAM, ZURAIDAH SIPON

Malaysians are well known for preserving their abundance of rituals and traditions. Among the Malays, 'duit salam' is the practice of giving some amount of money to the host of an event such as a wedding, baby shower, or 'kenduri'. Even though 'duit salam' is not a must to be honored by the guests, it is a symbol of appreciation to the host for inviting them. The moment of shaking hands and then handing over a small envelope that contains 'duit salam' is uniquely special for the host as well as the guests of the event. However, due to the global pandemic, many aspects of life have changed drastically. The standard operating procedure (SOP) was then introduced to help curb the spread of the virus. Adapting to the needs of the current situation and the perseverance of the 'duit salam' tradition, GoScan! was created. GoScan! is a mobile application that facilitates the transfer of a limited amount of money to the host of an event. With GoScan!, the user will simply scan a QR code provided by the host, and the money will be transferred from the quests to the host's bank account. GoScan! is such a user-friendly application that even the elderly will be able to follow its simple instructions. For first-timers or non-proficient users, friendly instruction is always available within the application itself. Therefore, GoScan! is the most recent and relevant mobile application for helping to protect oneself from the COVID-19 virus while preserving the traditional practice of 'duit salam'.

GoScan!! is one of the ideas from case study assignments to meet the ongoing assessment needs of semester five students in the Bachelor of Investment Management Program under the code INV613 Asset and Funds Management. With the theme of *Empowering Digitalisation during the Pandemic*, students must identify the latest issues within the theme's scope and then suggest solutions. Students are provided with guidelines similar to the guidelines of the actual innovation competition. By placing several evaluation criteria, such as the ability to identify and solve problems, innovation, the creativity of ideas, and the quality of the video produced, the students go through new experiences in generating innovative ideas. The result of the student's assignment was an abstract with a maximum of 300 words and a maximum of 6 minutes of video presentation.

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#### **CREATIVE CRITICAL THINKING (CCT) INNOVATION PROJECT @ UITM JOHOR**

#### FARIZAH BT MOHD NOR, ZURINA BINTI OMAR, MUHARRATUL SHARIFAH BINTI SHAIK ALAUDEEN

Creative Critical Thinking (CCT) is an elective course for business management students within the Faculty of Business and Management. The courses are designed to cultivate business students' critical thinking skills and be creative and able to solve problems in a dynamic business environment. This subject comprises classes on creative abilities, critical thinking, cognitive abilities, innovation, and communication. CCT class activities are based on extensive use of audiovisual methods, role plays, and individual and group projects. The subject is 100% based on individual and group assessments. One of the major assessments for this course is a group project named "small scale innovation," which consists of around 30% marks for the whole project. At UITM Johor, innovation projects are executed simultaneously for all the classes registered for this course.

On a predetermined day, the jury will evaluate a single mega-innovation project concurrently. Besides the innovation element, other elements such as practicality, cost efficiency, and teamwork will also be judged in the innovation project competition. However, a big chunk of marks are for the innovation aspect of the project. Other than that, the jurors involved are from UiTM Johor academics, who do not teach the course for that particular semester. Still, they do have knowledge and experience in innovation business projects.

One of the requirements of assessment is to have a bias-free evaluation. For this course, the innovation project assessment practice is a bias-free concept as the jurors contribute a big portion of marks and a small part of marks, around 10%, by the class lecturer. This is due to the class lecturer guiding and monitoring the progress of the innovation project of the student until the day of the event.

Historically, innovation projects executed for the past 10 years are origami-themed, innovative projects from recycled items, innovation kite prototype competitions, and international country cookery innovation competitions. This CCT innovation project assessment positively affects students; it taps into students' talents in producing project results through creative and critical thinking skills, using outside-the-box thinking skills and basic problem-solving skills, making decisions collaboratively, and meeting the course requirements. The outcomes of the innovation project offered students opportunities to demonstrate their individual strengths and work as a team through the production of high-quality products that met the defined assessment criteria.



#### **ELIS SCHOOLBASE**

#### ZURAIDAH SIPON, NUR LIYANA MOHAMED YOUSOP, NORHASNIZA MOHD HASSAN ABDULLAH, SHASHAZRINA ROSLAN, ZURAIDAH AHMAD, NUR ASYIQIN RAMDHAN

School choice is an important decision that every parent needs to make, even for their normal children and, what's more, for children with disabilities. In Malaysia, while school choice options are available to all families regardless of their socio-economic status, parents with special needs children face limited school choices to enroll their kids in reliable special education at the early intervention stage. In general, various issues need to be considered in choosing schools, such as teacher quality, school reputation, class size, distance and safety, parental and public opinion, the value attached to education, sociological and cultural factors, and even market forces. With all the issues parents must consider, deciding which school is best for their special kids can be a never-ending process. **ELIS SchoolBase** provides a handy and easily accessible tool for a quick school choice decision. It proposes guidelines on how to make school choice decisions and gives an idea to parents about the dimensions (based on the ELIS framework) they should investigate when considering the school placement for their school-age children. Parents can conduct a self-check based on the dimensions developed in the system, and it is a reliable tool because questionnaires are developed based on research. **ELIS SchoolBase** can be used anywhere and anytime without hassle.



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