



UNIVERSITI
TEKNOLOGI
MARA

Universiti Teknologi MARA

V-MIEX

28 JUNE
06 JULY
2022

VIRTUAL-MELAKA INTERNATIONAL INTELLECTUAL EXPOSITION

ROAD TO COMMERCIALISATION

V-MIEX BOOK



V - MIIEX BOOK

'ROAD TO COMMERCIALISATION'

EDITORS AND COMPILERS:

Dr. Nur Hayati Abd Rahman
Dr Syukri Abdullah
Wan Hasmat Wan Hasan
Aini Qamariah Mohd Yusof
Norazlan Anual
Dr. Khairunnisa Abd Samad
Nordianah Jusoh @ Hussain
Rozana Othman
Norlela Abas
Azira Rahim

COVER DESIGN:

Adi Hakim Talib

PUBLISHED BY:

Division of Research and Industrial Linkages
UiTM Cawangan Melaka
KM26 Jalan Lendu,
78000 Alor Gajah, Melaka
Tel: +606-5582094 / +0606-5582190 / +606-5582113
Email: miixuitm@gmail.com
Website: <https://www.miiex.my/>
ISBN: 978-967-2846-04-8

All right reserved. No parts of this publication may be produces, stored in retrieval system or transmitted in any form by any means, electronic, mechanical, photocopying, recording, or otherwise without permission of the copyright holder.

FOREWORD

ASSOC. PROF TS. DR MOHD RASDI ZAINI
Rector
Universiti Teknologi MARA (UiTM) Cawangan Melaka



Welcome to Virtual-Melaka International Intellectual Exposition 2022 (V-MIIEEX 2022). It is an honour for me on behalf of UiTM Melaka Branch to thank all of you for joining the programme and we are proud to inform you that this is the 12th year consecutively, UiTM Melaka Branch is organizing this exposition.

V-MIIEEX 2022 is a platform to improve the commercialization collaboration among industries and communities and at the same time, we also give the opportunity to academicians and students to share ideas and increase their potential innovation products with the industries and communities through their projects. This exposition also serves as a platform to cultivate and upload the nation's innovation culture by presenting new ideas and research by young people, especially from academia, universities, college, high schools, and primary school students.

The economy and development of the country faced a challenging phase in 2021 due to the Covid-19 pandemic. We faced changes in business, education, society, and lifestyle. However, the pandemic proved to be a blessing in disguise as it somehow gave people ideas which would be beneficial to improve their lifestyle and solve problems that might occur in the future. Besides, the new digital landscape also inspires more innovation and new ideas that contribute to various activities such as business and industries. As a university that encourages the "Research, Innovation and Commercialization", this exhibition is organized to encourage more commercialization of products that are beneficial to scholars, industries, and communities to tackle such issues to improve our present and future life.

Since 2009, UiTM Melaka Branch has successfully become the organizer for this innovation exposition. We are not only successful in organizing the exposition, but I would proudly say that we have also successfully embarked on commercialized products. With the number of participants for this year's exhibition, we believe that more commercialized products will be produced in line with the theme for this year, "Road to Commercialisation".

This exposition would never happen without dedication, teamwork, and commitment. A round of applause should be given to the committee teams as the backbone of this exposition. Their hard work, effort, and time made this exposition possible.

Finally, I would like to conclude this brief remark by thanking all the participants and stakeholders for joining the exposition, we hope that this collaboration never ends here.

Thank you.



DR. NUR HAYATI BINTI ABD RAHMAN
Deputy Rector Research & Industrial Linkages
Universiti Teknologi MARA (UiTM) Cawangan Melaka

It is a great pleasure to welcome all the participants and presenters to the Virtual Melaka International Intellectual Exposition (VMIIEX 22). I am delighted that through this periodic event, we managed to bring together scholars and professionals from various fields to engage through this virtual platform where ideas and breakthrough are discovered and leveraged for commercialization potential.

Since 2009 UiTM Cawangan Melaka has held twelve Invention and Innovation Design competitions and this year we are very honoured to have the second year of VMIIEX organized in digital platform. This has proven that despite the global challenges due to the recent pandemic, it is never an issue for UiTM Melaka to continuously organize this yearly prestigious event and to support the ministry's aspiration in leveraging creativity and innovation in the new norm.

VMIIEX 22 is organized with no sole objectives of accomplishing the University's KPI but instead we are determined to make this programme as the place to help heighten commercialization collaboration in research and innovation with the industry and community through joint exhibitions from various external organizations.

Our aspiration is to also provide exposure and opportunities to academic staff as well as students from public and private universities to engage in direct excellent scholarly activities with the industry and community through activities that can be measured and assessed. As for the Research and Industrial Linkages Office of UiTM Melaka, this exhibition is seen as the platform that can encourage active collaboration and knowledge transfer with industries; objectively to support various activities that will benefit all stakeholders from the various government agencies, local and international universities, industries and communities.

Through the theme of "Road to Commercialization" this year, V-MIIEX 22 is committed to have this event as a boulevard to inspire and cultivate creativity and innovation to the numerous levels of inventors through exposure on latest technologies, astonishing ideas and creative designs with great potential to be commercialized. For this year, we proudly introduce a special category which is the "Endemic Challenge" as the provision to the government of Malaysia's goal of moving towards the endemic.

To ensure that the competing products in this exhibition is not exclusively for the purpose of competition, V-MIIEX 22 is dedicated for the commercialization of highly potential innovation products, which is attained through its active collaboration with tailored needs industries. The commercialization effort was not for income generation purpose only but it aimed to spearhead the development of quality products in line with industrial needs and community benefit.

Therefore, it is a great honour for me on behalf of the Research and Industrial Linkages Office as well as the organizing committee to have all participants in this competition and I would like to express my highest gratitude especially to the Rector of UiTM Melaka and all strategic partners and sponsors for supporting the event.

To finish, I sincerely wish VMIIEX 22 a remarkable success. I believe that this will not be the only collaboration between UiTM Melaka and the respective partners and linkages, but a beginning of a long and fruitful cooperation in future.

Thank you very much.

road to commercialisation...

WAN HASMAT WAN HASAN
Project Director V-MIIEEX 2022
Universiti Teknologi MARA (UiTM) Cawangan Melaka



Assalamualaikum and Warmest Greetings.

It gives me an enormous pleasure, on behalf of the organizing committee to welcome all participants and presenters to the Virtual -Melaka International Intellectual Exposition 2022 (VMIIEX '22) with the theme "Road to Commercialisation". We are honoured and glad to welcome all participants to this biennial event.

This is the second time that we have organized this biennial event virtually. V-MIIEEX 22 is an innovation competition, in which, innovation products, ideas and systems related to various science and technological fields are exhibited as a solution for the presented problems.

V-MIIEEX22 expectantly will be a platform that gathers experts from academies, scientists, and researchers, locally and internationally, to contribute towards the growth of scientific and technological knowledge in each participant's specialisation and expertise.

The competition also serves as a platform to give fresh exposure to the various level of inventors, as well as to encourage the culture of innovation design focused on latest technologies and related to new norms technologies and inventions due to COVID-19.

V-MIIEEX 22 is also hoped to be an avenue for gathering and disseminating the latest knowledge on ideas and acquisition of innovation among the participants. It is hoped that the competition will be able to open the mind of the participants towards latest technologies and design. It is also in line with the government's aspiration to encourage innovation activities in Malaysia.

As a final note, I would like to congratulate my fellow committee members for their tremendous effort, which have been critical to the event's success. In addition, I would like to thank our co-organizer, event sponsors and supporters. Optimistically, we wish that all new knowledge that is discovered, invented, or innovated will drive towards our future sustainability.

Thank you.

ABOUT V-MIIEEX

The world after COVID-19 is unlikely to return to the world that was. Despite the challenging pace during the pandemic, the strong rebound is expecting in this exciting year 2022. Malaysia is welcoming the great prospects ahead with positive impact on the country's economy and development. Hence, the hope for greater opportunities motivates for more creative thinkers to come up with innovative ideas that can be put forward to be harnessed to overcome similar problems in the future. V-MIIEEx 2022 is one of these platforms which contribute relevant ideas that could help communities of all walks of life cope with this pandemic.

UiTM has identified research, innovation, and commercialization to be among the core components and strategic effort towards becoming a well-known and prominent university. Aside from realizing this goal, with these components and efforts, fostering the development of knowledge, generating financial stability of the university, and producing knowledgeable academicians are also potentially achievable.

By having invention and innovation competition yearly, UiTM Cawangan Melaka is confident that it could further enhance creative and innovative abilities among staff and students. In support of the government notion which upholds the importance of innovation, UiTM Cawangan Melaka has taken the initiative of organising the Virtual Melaka International Intellectual Exposition (V-MIIEEx).

In instigating and nurturing the continuous culture of inventing and innovating, this event is an ideal platform for lecturers, administrative staff, students, and the public to showcase and commercialize their products or prototypes as well as novel ideas. The first IID which was held nationally in UiTM Cawangan Melaka in 2009, has successfully gathered and displayed more than 37 inventions and innovations. Accordingly, to continue this strong passion towards inventing and innovating, the IID competition should be continued and celebrated.

With that, the Division of Research and Industrial Linkages will be organising its 12th IID competition, the Virtual - Melaka International Intellectual Exposition (V-MIIEEx 2022) with the theme, 'Road To Commercialisation'. V-MIIEEx 2022 hopes to welcome 200 competing products to be showcased and commercialized, at the same time, attract attention of related and matching industry.

Objectives

1. Encourage and instill passion towards inventing and innovating among UiTM Cawangan Melaka staff, students and academicians of local and international higher education institutions;
2. Highlight distinguished talents of skillful inventors and exhibit intellectual products, inventions and innovations among local and private tertiary institutions, government and private agencies, including international participants;
3. Become an effective Business Matching platform for participating research products, matching industries and partnering government agencies;
4. Recognise, inspire and promote invention and innovation products to be patented and commercialized;
5. Increase passion towards inventing and innovating through research and boost interests of government and non-government agencies to obtain consultancy services from a line up experts of higher education institutions and UiTM Cawangan Melaka.

Smart Appraisal Form (S.A.F)

Nurul Syazlina Binti Kamaruzzaman¹, Nur Ilham Nabilah Binti Mohd Khairi², Nur Yasmin Binti Md. Taufik³, Fatin Nabilah Binti Jefri⁴, Nur Adhwa Binti Muhammad⁵, Nur Hidayah Binti Zaini⁶

1, 2, 3, 4, 5, 6 Universiti Teknologi Mara (UiTM), Cawangan Melaka, Kampus Bandaraya Melaka, Melaka, Malaysia.

2021114577@student.uitm.edu.my

Abstract

A performance appraisal is a phrase that describes both employee appraisal and performance review. It involves evaluating job performance of employees concerning quality, quantity, attitude, cost, and time. Self, colleagues, seniors, and juniors are in charge of it. In a formal way, however, it is usually handled by the direct employee's senior supervisor or manager. An employee's career growth is measured, compared, identified, guided, corrected, and managed through a performance appraisal. It is the process of collecting, documenting, and critically assessing the relative significance data of the employees within the organization. A performance appraisal is the evaluation of present achievements and failures, personal weaknesses and strengths, and eligibility for rewards, benefits, and recognition, such as wage hikes, promotions, or additional training. Thus, at the end, it will demonstrate the person's compatibility with the organization in their current position.

Keywords: Performance, Appraisal, Form, Employee, Evaluation

1. INTRODUCTION

An employee evaluation is a lot more than just a review of how well they did their job; it's also a way to see how well a person did as a manager (Knight, 2011). The evaluation for the employee is important because it lets the organization know if an employee is a good fit for the job and if they are having trouble. There is always the desire to download and print an employee evaluation appraisal form in Word or PDF, but this has several drawbacks. First of all, this information is very private, and having it on paper makes it harder to share and store it in a safe way. Second, evaluating employees can be hard, and scribbling on written evaluations after the evaluator changes their mind is a messy process. Lastly, while printable employee performance review examples may appear to be a wonderful idea, they will waste a significant amount of time in the long run. The manager might need to recheck these evaluations again in a year, and they do not want to waste time hunting for the key to the locked file cabinet. That is why every organization needs to go digital to keep things organized and clean (Grab et al., 2019).

Hence, S.A.F is created to ease of access and turn a chore into something fun with an interactive digital form that is equipped with various functions in Excel. The S.A.F is running on Microsoft Excel software. The best thing about using our digital evaluation form is that it makes it easy to get to information that is stored safely. The S.A.F digital performance appraisal form simplifies performance management, monitoring employee growth, and sharing performance reports. This S.A.F utilizes an auto-sum function, date picker, data

validation, and pre-filled dropdowns to populate fields depending on selection which accelerate form completion. This form also enables the evaluator to move from one employee's evaluation form to the next employee's evaluation form in a short time without having to open many files at one time.

2. OBJECTIVE

There are several objectives in creating this S.A.F which is to measure and enhance employee performance in order to maximize their future potential and value to the organization. The process of the key in the employee's performance information will be faster with the use of this system as it operates half automatically. Other than that, the system is designed to save time and also helps the organization to make decisions on establishing duties and responsibilities, as well as deciding on how to distribute incentives to the employees. Lastly, the results of the employee performance obtained in the form will be more accurate rather than using a print out system.

3. NOVELTY & INVENTIVENESS

The Smart Appraisal Form (S.A.F) is designed to support the evaluation process while make it easier for them to implement it. S.A.F created with half automated system because most of the functions for this S.A.F are being customized with functions that are linked to each other and the formula also automatically generated. It has made it easier for the user and less time consuming. The S.A.F also build with user-friendly that designed to be easy to use, learn and understand. This form also makes use of English, which is a universal language. The system of S.A.F also owns simplicity as it is simple to administer, quick to complete, clear and concise. It is also convenient to manage because there is no essay format needed. Certain sections in this form are also designed as descriptive that refers to the evidence of the employee's performance. This also can be seen through the comment section. S.A.F provides the competencies listed that indicates and explains key responsibilities of the employees that defines the defitional clarity in this form. Other than that, this form also comprehensive comprises all the important areas to evaluate the performance for a specific job position. It is also relevance which can be seen through information in each section considers and specifies the efficiency of the employee's job responsibilities with respect to organizational goals. At the same time, the result from S.A.F could be easy to communicate to the stakeholders because all the information needed is clearly stated as it is well-defined. Also, S.A.F is time-oriented that have specified the past and future performance expectations and goals to be achieved.

4. PRACTICALITY & USEFULNESS

This appraisal form is acceptable to both evaluators and employees as it focuses on the whole positions in the retail department. The system is easy to administer and expected to increase the efficiency in processing performance management. Each component of the appraisal form is being practically described and fits well in any positions held in the department. The form is often providing the section for rating and comment that allows the employees to recognize their weakness and strengths thus enhancing their performance in the next future.

5. CONCLUSION

In conclusion, S.A.F is created to ease access and turn a chore into something fun with an

interactive digital form that is equipped with various functions in Excel. It helps the company know if an employee is a good fit for the job and if they are having trouble. This digital performance appraisal form makes it simple to enhance performance management, monitor employee progress, and share performance reports. Hence, the system is easy to administer and expected to increase the efficiency in processing performance management. In the future, it is aimed that this system technology will be commercialized and applied as a new regulation for business developments.

REFERENCES

Aguinis, H. (2014). Performance Management Third Edition. United States of America: Pearson.