

Everyone's Smart University

College of Management

Project Management



أثر استخدام برنامج قواعد البيانات Microsoft Access في رفع جودة إدارة

المشاريع دراسة تطبيقية على منسوبي قطاع التعليم بالهيئة الملكية ببنبع

The Effect of Using the Microsoft Access Database Program on
Raising the Quality of Project Management: An Applied Study on
Employees of

the Education Sector at the Royal Commission in Yanbu

Graduation Project

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1. IMPORTANCE OF THE STUDY

The effect of using the Microsoft Access database program on raising the quality of project management: an applied study on employees of the education sector at the Royal Commission in Yanbu. The research you are conducting is highly relevant in today's business world, where technology plays a vital role in improving efficiency and productivity.

By focusing specifically on the impact of Microsoft Access database programs in the private sector of various fields in Saudi Arabia, you are addressing an important issue in project management.

One of the key incentives driving this research is the observation that many project departments in the region are not making full use of computer skills and databases, which can lead to a lack of standardization and efficiency in project management. This is particularly problematic in teams that are diverse and may face challenges in keeping pace with work progress and sharing information effectively.

By leveraging the capabilities of database software, project teams can overcome many of these challenges and achieve better results in terms of cost and time efficiency. Some benefits of using database programs like Microsoft Access in project management include:

- Centralized storage of project data, including tasks, goals, and plans, that can be accessed by all team members.
- Improved collaboration and communication among team members, which can help to avoid misunderstandings and delays.
- Greater visibility into project progress and performance, which can help managers make informed decisions and adjust plans as needed.
- Enhanced security and data integrity, which can help to protect sensitive project information and prevent errors or data loss.

Scientific research plays a crucial role in any project, and this is especially true in the private sector where workers may not always be aware of the latest technological advancements.

By using Microsoft Access, a program that provides a wide range of auxiliary tools, employees can streamline their work processes and increase productivity. This can result in significant cost savings for the company, as well as improved efficiency and output. Here are some additional points to consider:

- Microsoft Access is a powerful database management system that offers numerous features, including the ability to create custom forms, automate data entry, and generate reports.
- By using Access, employees can store and organize data more effectively, reducing the risk of errors and improving data accuracy and consistency.
- Access also allows for easy collaboration between team members, which can help to streamline workflows and ensure that everyone is working towards the same goals.

To sum up, the use of Microsoft Access can have a significant impact on a company's bottom.

line, by improving efficiency and productivity and reducing the time and resources required to complete tasks.

- What is the importance of spreading the concept of using project management assistance programs?
- What are the most prominent obstacles while using Microsoft Access?

- What are the most prominent local and international experiences about the use of Microsoft Access database program in companies and establishments?
- What are the positive results and effects made by Microsoft Access program to develop and improve business?
- What is the relationship between awareness in the use of computer programs in general and employee performance.

2. FIRST VARIABLE OF THE STUDY

In this study, we set the first variable as the level of computer skills and knowledge a person can show in terms of utilize them in completing assigned tasks.

Computer skills refer to a person's proficiency and knowledge in using computers and related technologies. In today's digital age, computer skills are highly valued and relevant in various fields and industries.

Computer skills can encompass a wide range of abilities, including:

Basic computer literacy: This includes fundamental skills such as operating a computer, using a keyboard and mouse, navigating through different software applications, and understanding file management.

Software proficiency: It involves expertise in using specific software applications or programs relevant to a particular domain. Examples include word processing software (e.g., Microsoft Word), spreadsheet software (e.g., Microsoft Excel), presentation software

(e.g., Microsoft PowerPoint), database software (e.g., Microsoft Access) and industry-specific software.

Internet and web skills: This involves the ability to effectively search for information online, navigate websites, use email and social media platforms, and understand online security and privacy.

Data analysis and interpretation: This encompasses the ability to work with data, perform basic data analysis using tools like spreadsheets or statistical software, and interpret the results.

Programming and coding: These skills involve writing, understanding, and modifying code in programming languages such as Python, Java, or C++, enabling individuals to develop software, automate tasks, or build websites.

Troubleshooting and technical support: This includes the ability to identify and resolve common computer issues, perform system maintenance tasks, and provide technical support to others.

To be specific to our study, Microsoft Access is a popular relational database management system (RDBMS) developed by Microsoft. It is part of the Microsoft Office suite of applications and is designed to help users store, organize, and manipulate large amounts of data.

Here are some key aspects and skills related to Microsoft Access:

Database creation: Microsoft Access allows users to create custom databases to store and manage data. It provides tools and features for creating tables, defining relationships between tables, and setting up primary and foreign keys to establish data integrity.

Data entry and manipulation: With Microsoft Access, you can easily enter, edit, and update data within the database. It offers forms and

data entry interfaces that simplify the process of inputting information into the database tables. Additionally, you can perform various data manipulation tasks such as sorting, filtering, and searching for specific records.

Querying and reporting: Access includes a powerful query builder that enables users to extract specific information from the database. Queries can be used to filter data, perform calculations, and generate reports based on specific criteria. The reporting functionality allows for the creation of professional-looking reports that summarize and present data in a meaningful way.

Forms and user interfaces: Microsoft Access provides a visual interface for designing custom forms that allow users to interact with the database. Forms can be used to streamline data entry, display information, and create user-friendly interfaces for data manipulation.

Integration with other applications: Access integrates well with other Microsoft Office applications such as Excel, Word, and PowerPoint. It allows for data import/export between Access and other Office programs, facilitating data sharing and analysis across different platforms.

Visual Basic for Applications (VBA): Access supports VBA, a programming language that allows users to automate tasks, create custom functions, and build more advanced functionality within their databases. VBA can be used to enhance the capabilities of Access by creating macros, writing event-driven code, and developing custom forms and reports.

These are just a few examples of the specific computer skills related to Microsoft Access. Proficiency in Microsoft Access can be valuable in various professional settings where data management, reporting, and analysis are essential, such as project management, data analysis, research, and business operations.

3. SECOND VARIABLE OF THE STUDY AND THE CORRELATION BETWEEN THE TWO VARIABLES

The second variable in our research is the quality of project management. To determine the correlation between computer skills and the quality of project management in a firm, you would need to analyze data and calculate a correlation coefficient. The correlation coefficient measures the strength and direction of the linear relationship between two variables. It ranges from -1 to 1, where -1 indicates a perfect negative correlation, 1 indicates a perfect positive correlation, and 0 indicates no correlation. To determine the correlation between computer skills and the quality of project management in a firm, you would need to analyze data and calculate a correlation coefficient. The correlation coefficient measures the strength and direction of the linear relationship between two variables. It ranges from -1 to 1, where -1 indicates a perfect negative correlation, 1 indicates a perfect positive correlation, and 0 indicates no correlation.

4. METHODOLOGICAL PROCEDURES

In this section, we will explain how we plan to conduct our research. We will use a quantitative research approach to collect data from participants from education sector in the Royal Commission. We

will use surveys to collect data from participants and analyze the data using statistical methods.

Our sample size will be selected from the employees in sector. We will select participants using a random sampling method to ensure that our sample is representative of the population.

Variety of study tools are used during the period of the study as listed:

- a) A survey was conducted online with google form.
- b) A direct quotation was forwarded to YTI lecturers.
- b) A previous studies and research were used as a reference.
- c) Experience of old generation workers in the education fields.

5. PREVIUOS STUDIES AND THEORETICAL FRAMEWORK

No.	Study	Abstract
1	Montana State University, Carol Ann Gibson Flaherty (1994)	This study shows that some computer skills and environmental variables were associated with Montana State University Extension agents' job performance, as reported in job appraisals, and job satisfaction, as defined by the Work Itself scale of the Job Descriptive Index. Gender, salary, and having a modem conveniently available were significant predictors of job performance in two multiple regression models. For salary, the relationship logically could be argued to be circular, with job performance having led to higher salary as well as salary having predicted job performance. Using spreadsheets, electronic mail, and on-line information sources, as well as

		an agent's judgment of whether s/he had a good enough computer were significant predictors of job satisfaction in two multiple regression models. It should be pointed out that it was not increasing skill with spreadsheets, email and information searching but less skill that was associated with higher job satisfaction. However, the existence of significant results masks the fact that the data is spread very thinly among the variables. Even the stepwise multiple regression models did not come close to the common recommendation that a study should have 30 observations for each independent variable. The significant relationships shown by the models should be considered a starting point for further study.
2	University of Applied Sciences, Aidah Nassazi (2013)	Employees are major assets of any organization. The active role they play towards a company's success cannot be underestimated. As a result, equipping these unique assets through effective training becomes imperative in order to maximize the job performance. Also position them to take on the challenges of the today's competitive business climate. Although extensive research has been conducted in the area of Human Resource Management, the same cannot be said on employee training especially as it concerns developing countries. The purpose of this thesis was to evaluate the effects of training on employee performance, using the telecommunication industry in Uganda as case study. In order to understand the study aim, four goals were developed and these focused particularly on identifying the training programs' existing in the industry, the objective of

		the training offered, the methods employed and finally the effects of training and development on employee performance. The study was based on three case studies of the biggest telecommunication companies operating in Uganda. A qualitative research approach of the data collection was adopted using a questionnaire comprising of 18 questions distributed to 120 respondents. Based on this sample the results obtained indicate that training have a clear effect on the performance of employees. The findings can prove useful to Human resource managers, Human resource policy decision makers, as well as government and academic institutions.
3	Rose May Cora P. Lagon, Mercedes C. Pagunsan, Nodelyn G. Paredes, Joe Bernie L. Esposo, Elsa F. Lanceta, June S. Garcia, Kent Alvin M. Cebal &	This correlational study aimed to determine the relationships among computer literacy, job satisfaction, and job performance of 121 government employees in the municipality of Calinog, Iloilo, Philippines who were selected using total enumeration last 2018. This study utilized the adapted Perception of Computer Technology Competencies, Performance Evaluation, and An Index of Job Satisfaction. Through the use of statistical tools such as the mean, standard deviation, and Pearson's r where alpha was set at 0.01, the findings of the study revealed that the participants were "Skilled" in their computer literacy, "Fairly Satisfied" in their work, and had a "High" level of job performance. Furthermore, the study revealed that computer literacy, job satisfaction, and job performance were positively correlated. It is suggested that the government employees must be continuously provided by

	Vincent D. Catamin	relevant trainings, seminars, and workshops because they have positive bearings on their job satisfaction and performance.
4	Tel Aviv University, Dalit Mor, Hagar Laks, and Arnon HersHKovitz (2016)	In today's job market, computer skills are part of the prerequisites for many jobs. In this paper, we report on a study of readiness to work with computers (the dependent variable) among unemployed women (N=54) after participating in a unique, web-supported training focused on computer skills and empowerment. Overall, the level of participants' readiness to work with computers was much higher at the end of the course than it was at its beginning. During the analysis, we explored associations between this variable and variables from four categories: log-based (describing the online activity); computer literacy and experience; job-seeking motivation and practice; and training satisfaction. Only two variables were associated with the dependent variable: knowledge post-test duration and satisfaction with content. After building a prediction model for the dependent variable, another log-based variable was highlighted: total number of actions in the course website along the course. Overall, our analyses shed light on the predominance of log based variables over variables from other categories. These findings might hint at the need of developing new assessment tools for learners and trainees that take into consideration human computer interaction when measuring self-efficacy variables.

The theoretical premises of your study could include the principles of relational databases and how Microsoft Access can be used to build and use these databases. You can also include the basics of database design such as determining the purpose of your database, finding and organizing the required information, dividing the information into tables, turning information items into columns, specifying primary keys, creating the table relationships and refining the design.

6. RESULTS

We have conducted a survey among education sector's employees to determine the usage of Microsoft Access in their project management processes. The survey also asked them to rate the quality of project management in their respective firms on a scale of 1 to 5.

Based on the survey results, you obtained the following data:

20% of employees reported using Microsoft Access extensively.

40% of employees reported using Microsoft Access moderately.

40% of employees reported not using Microsoft Access.

Those employees with more use of the program shows their success in the firm more than those who barely used the program or did not use it at all.

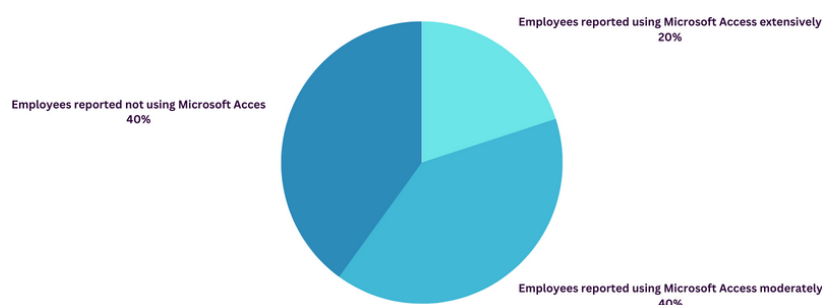


Figure1 : survey pie chart

7. REFERENCES

- 1) Computer Skills Training and Readiness to Work with Computers, Dalit Mor, Hagar Laks, and Arnon HersHKovitz Tel Aviv University, Tel Aviv, Israel, 2016.
- 2) EFFECTS OF TRAINING ON EMPLOYEE PERFORMANCE, Aidah Nassazi, VAASAN AMMATTIKORKEAKOULU UNIVERSITY OF APPLIED SCIENCES International Business, 2013.
- 3) Computer literacy of government employees as correlates to job performance and satisfaction, Rose May Cora P. Lagon*, Mercedes C. Pagunsan, Nodelyn G. Paredes, Joe Bernie L. Esposo, Elsa F. Lanceta, June S. Garcia, Kent Alvin M. Cebal & Vincent D. Catamin West Visayas State University, Calinog Campus, Iloilo, 5040 Philippines.
- 4) The relationships among computer skills, job performance, and job satisfaction of Montana Extension agents by Carol Ann Gibson Flaherty, Montana State University, 1994.
- 5) The Effects of Using Microsoft Teams on Improving EFL Learners' Speaking Abilities at Unaizah High School Students Raghad T. Almutairi¹ & Fahad H. Aljumah², 2023
- 6) “Key Benefits of Microsoft Access Database” by Morgan Landry ¹
- 7) “Advantages and Disadvantages of Microsoft Access” by The Knowledge Academy ²
- 8) “Use the Projects Access database template” by Microsoft Support ³
- 9) “Basic project management reference library - Identify - Evaluate” by Project Management Institute ²

10) “Featured Access templates” by Microsoft Support

8. APPENDIXES

Few points were enhanced by the review of ESU instructors, since two instructors reviewed the proposal and shared a comment related to the research title and other related to the references sequence as shown below:

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دراسة تطبيقية على القطاع الخاص في المملكة العربية السعودية

The Effect of Using Microsoft Access Database Program on Raising the
Quality of Project Management: Applied Study on the Private Sector in the
Kingdom of Saudi Arabia

Graduation Project

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Figure2: first enhancement on the title

10. REFERENCES

Computer Skills Training and Readiness to Work with Computers, Dalit Mor, Hagar Laks, and Arnon HersHKovitz Tel Aviv University, Tel Aviv, Israel, 2016.



EFFECTS OF TRAINING ON EMPLOYEE PERFORMANCE, Aidah Nassazi, VAASAN AMMATTIKORKEAKOULU UNIVERSITY OF APPLIED SCIENCES International Busines, 2013.

Computer literacy of government employees as correlates to job performance and satisfaction, Rose May Cora P. Lagon*, Mercedes C. Pagunsan, Nodelyn G. Paredes, Joe Bernie L. Esposo, Elsa F. Lanceta, June S. Garcia, Kent Alvin M. Cebal & Vincent D. Catamin West Visayas State University, Calinog Campus, Iloilo, 5040 Philippines

The relationships among computer skills, job performance, and job satisfaction of Montana Extension agents by Carol Ann Gibson Flaherty, Montana State University, 1994.

Figure3: second enhancement on the references sequence

9. English abstract

The purpose of this research study was to show the relationship between computer skills and the quality of project management within organizations. In today's technologically advanced business environment, computer skills play a pivotal role in facilitating efficient project execution and successful outcomes. The research aimed to examine how the level of computer skills possessed by project managers and team members influences the overall quality of project management.

A mixed-methods approach was employed, combining quantitative survey data and qualitative interviews. The sample consisted of project managers and team members from education sector in the Royal Commission. The participants' computer skills were assessed through self-reported survey. The quality of project management was evaluated based on key performance indicators, stakeholder satisfaction, and project success criteria.

The results revealed a significant positive correlation between computer skills and the quality of project management. Participants with higher levels of computer skills demonstrated enhanced abilities in project planning, communication, data management, and problem-solving. They were more adept at utilizing project management software, effectively analyzing project data, and leveraging technology to streamline project processes.

Moreover, qualitative findings indicated that computer skills positively influenced collaboration, decision-making, and overall project efficiency. Participants with advanced computer skills were better equipped to handle complex projects, adapt to changing technological landscapes, and implement innovative solutions.

This research contributes to the existing literature by highlighting the importance of computer skills in project management and their impact on project outcomes. The findings suggest that organizations should prioritize the development and enhancement of computer skills and specially Microsoft access among project managers and team members through training programs, workshops, and continuous professional development initiatives.

By investing in computer skills development, organizations can expect improved project management practices, enhanced productivity, and higher project success rates. Furthermore, the findings emphasize the need for project management professionals to continuously update their computer skills to keep pace with technological advancements and industry demands.

Keywords: computer skills, quality of project management, project success, project management software, technology, project outcomes.

10. Arabic Abstract

كان الغرض من هذه الدراسة البحثية هو إظهار العلاقة بين مهارات الكمبيوتر وجودة إدارة المشاريع و الأداء داخل المنظمات. في بيئة الأعمال المتقدمة تكنولوجياً اليوم، تلعب مهارات الكمبيوتر دوراً محورياً في تسهيل التنفيذ الفعال للمشروع وتحقيق النتائج الناجحة. يهدف البحث إلى دراسة مدى تأثير مستوى مهارات الكمبيوتر التي يمتلكها أعضاء الفريق على الجودة الشاملة والكفاءة لإدارة المشاريع.

تم استخدام نهج مختلط الأساليب، والجمع بين بيانات المسح الكمي والمقابلات النوعية. وتكونت العينة من موظفي وأعضاء الفريق التعليمي من مؤسسة الهيئة الملكية التعليمية. تم تقييم مهارات الكمبيوتر للمشاركين من خلال

عمل احصائية. تم تقييم جودة إدارة المشروع بناءً على مؤشرات الأداء الرئيسية ورضا أصحاب المصلحة ومعايير نجاح المشروع.

وأظهرت النتائج وجود علاقة ارتباطية موجبة معنوية بين مهارات الحاسوب وجودة إدارة المشاريع. أظهر المشاركون ذوو المستويات الأعلى من مهارات الكمبيوتر قدرات معززة في تخطيط المشاريع، والاتصالات، وإدارة البيانات، وحل المشكلات. وكانوا أكثر مهارة في استخدام برامج إدارة المشاريع، وتحليل بيانات المشروع بشكل فعال، والاستفادة من التكنولوجيا لتبسيط عمليات المشروع.

علاوة على ذلك، أشارت النتائج النوعية إلى أن مهارات الكمبيوتر أثرت بشكل إيجابي على التعاون وصنع القرار وكفاءة المشروع بشكل عام. وكان المشاركون ذوو مهارات الكمبيوتر المتقدمة مجهزين بشكل أفضل للتعامل مع المشاريع المعقدة، والتكيف مع المشهد التكنولوجي المتغير، وتنفيذ حلول مبتكرة.

يساهم هذا البحث في الأدبيات الموجودة من خلال تسليط الضوء على أهمية مهارات الكمبيوتر في إدارة المشاريع وتأثيرها على نتائج المشروع. وتشير النتائج إلى أن المنظمات يجب أن تعطي الأولوية لتطوير وتعزيز مهارات الكمبيوتر وخاصة الوصول إلى مايكروسوفت بين مديري المشاريع وأعضاء الفريق من خلال برامج التدريب وورش العمل ومبادرات التطوير المهني المستمر.

من خلال الاستثمار في تطوير مهارات الكمبيوتر وتحديد مايكروسوفت اكسس، يمكن للمؤسسات أن تتوقع ممارسات محسنة لإدارة المشاريع، وتعزيز الإنتاجية، وارتفاع معدلات نجاح المشاريع. علاوة على ذلك، تؤكد النتائج على حاجة المتخصصين في إدارة المشاريع إلى تحديث مهاراتهم الحاسوبية بشكل مستمر لمواكبة التقدم التكنولوجي ومتطلبات الصناعة.

الكلمات المفتاحية: مهارات الحاسوب، جودة إدارة المشاريع، نجاح المشاريع، برمجيات إدارة المشاريع، التكنولوجيا، نتائج المشاريع.