



## The TVET Database

### Promising Practice

*Implemented by:*

Abu Dhabi Centre for Technical and Vocational Education and Training (ACTVET)

*Where:*

United Arab Emirates

*Status:*

Launched in November 2016

*Summary:*

The TVET Database collects, verifies and consolidates student, faculty and staff information on a regular basis and provides a single source of TVET information that supports evidence-based performance monitoring and management. The Database was recognized as one of the best practices implemented in Abu Dhabi in 2019.

## Overview

ACTVET, the Abu Dhabi Centre for Technical and Vocational Education and Training, plays a crucial role in shaping the TVET landscape within the Emirate of Abu Dhabi. With a mission to cultivate a skilled workforce driving innovation and economic growth, ACTVET aspires to position TVET as the preferred choice for Emirati citizens.

ACTVET oversees several entities that offer accredited educational and vocational training programmes aligned with the highest international standards. These entities are the Abu Dhabi Vocational Education and Training Institute (ADVETI) and the Institute of Applied Technology (IAT).

At the core of ACTVET's mission lies a comprehensive strategy seamlessly integrated into Abu Dhabi's broader education framework. This strategy focuses on delivering high-quality education accessible to all, equipping students with market-ready skills, and fostering a culture of innovation. In alignment with UNESCO's strategy for TVET, ACTVET ensures adherence to international best practices across all aspects of its operations.

## Description

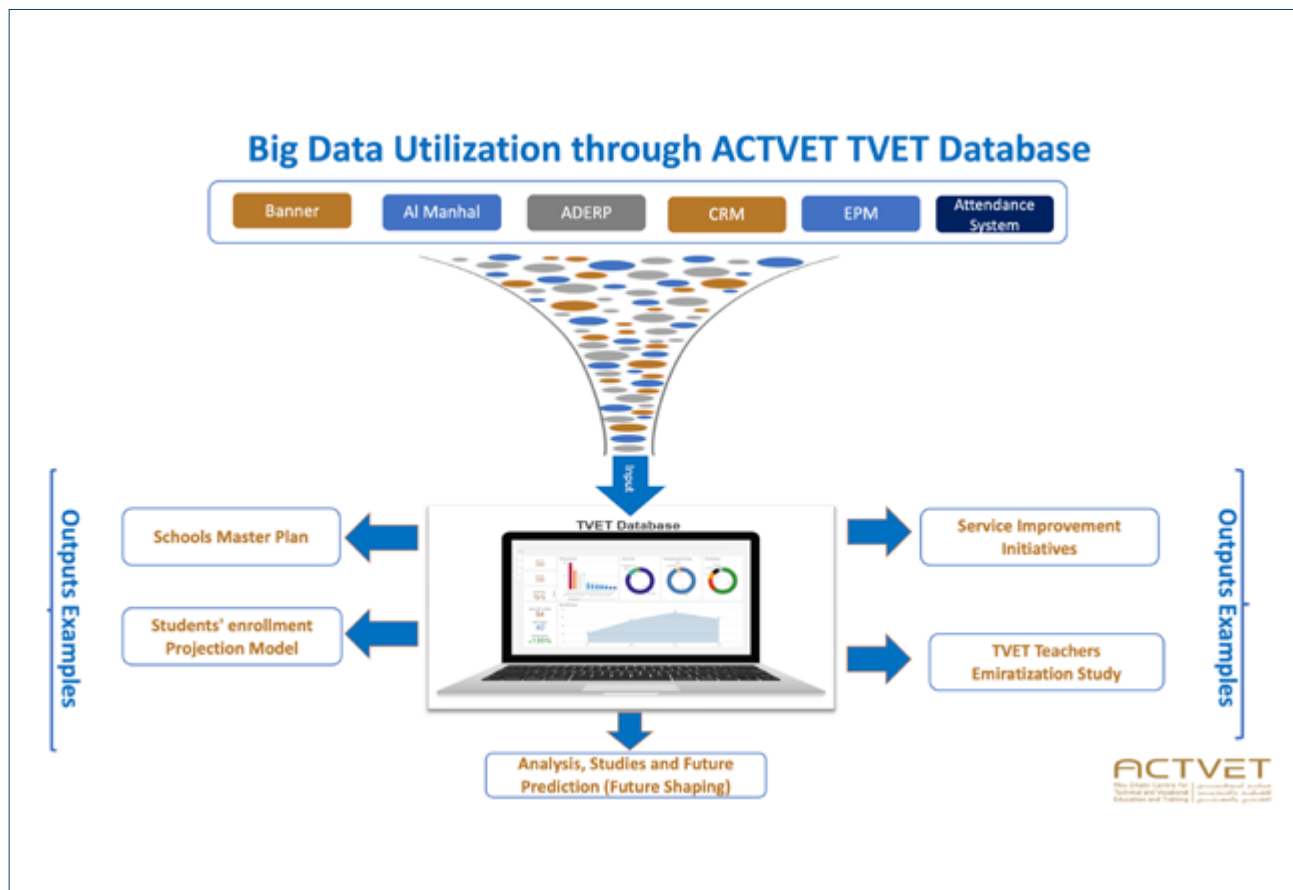
### The TVET Database

There are 31 campuses with different student records systems existing within the ACTVET structure. To collect, consolidate, verify and report, it requires proper governance and a framework in place to ensure compliance of data transfers, accuracy of data and ownership of content.

The following teams were created to oversee the project progress and execution:

### Steering Committee Project Team

- Functional (Business Data Stewards)
- Dashboards and Reports Developers
- Data Architects
- Data Quality



## Objectives

ACTVET believes that innovation is an integral part of the TVET sector. Therefore, the institution made an informed decision to develop a fully automated TVET database that ensures the accuracy of data, integrated in one platform to create greater insight and visibility for top management and decision-makers.

### Key features of the TVET Database

- **Integration of data** from different sources all in one platform (Banner, CRM, ADERP, EPM, etc.).
- **Full automation** that eliminates the need for manual data gathering and reduces data errors.
- **Accessibility** of up-to-date information.
- **Timesaving and increased reporting efficiency:**
  - Reduction in the number of days needed to gather required data and statistics related to the TVET sector.
  - Reduction in the number of days needed to prepare a comprehensive performance report.
- **High level of data accuracy** resulting from a data validation process embedded in the system.
- **Data consistency** across the different entities/ departments resulting from the dependence on the same source of information.
- **Provision of analytical tools** to support the decision-making process.
- **Ease of access and use** through different devices (laptop, tablet and mobile phones).

## Outcomes and impact

- Integrated more than 10 data sources in one database and put in place a plan for the remaining data sources.
- More than 40 dashboard applications made available to users within specific and organized access rights.
- Created more than 100 reports and trend charts to fulfil users' needs.
- Developed more than 270 interactive reports and dashboard sheets based on business requirements.

Overall, the database decreased the number of days needed to gather, analyse and prepare comprehensive performance reports for management (from 1 month in 2016 to 1 week in 2020 to less than one day in 2023).

## Challenges

### Data quality issues

ACTVET implemented a unified data warehouse to collect all the data in one database and implemented a data validation system to check and ensure data quality.

### Data security and privacy

The developers implemented a flexible and strong security model in order to provide information access to authorized people only.

## Insights

### The TVET Database supports all the functions of ACTVET's departments and its institutes.

- Information contained in all TVET Database dashboards are used as input to the Strategic Plan of ACTVET.
- The TVET Database provides a holistic and real-time overview about the performance of the different departments and entities within the ACTVET system.
- It is possible to constantly monitor performance and identify any drawbacks, allowing management to take immediate actions to rectify the issue.
- There is a healthy competitive environment for the customer service team through the Staff Performance Dashboard.

- Customer satisfaction is increased through constant monitoring and getting in touch immediately with unsatisfied customers to solve their problems directly.
- Since the system is highly dependent on data feeds from ACTVET entities, it is necessary that the respective entities comply with the policy and guidelines of data definitions and schedules, as well as encourage their staff to update data. This requires the involvement of all entities from the initial stages of the project and their commitment to comply with its governance.

## Next steps

There are plans to cover more business areas and develop more dashboards that support management decisions. Advanced analytics will also be added to include predictive modelling and decision-making support features.

### Learn more

**Naeema AlMenhali**, Director of Strategic Planning and Performance Management Department at ACTVET, helped to compile this document.

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To learn more about the TVET Database, visit:  
<https://www.actvet.gov.ae>.

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