



مجلة البحوث المحاسبية

نصف سنوية

محكمة

متخصصة

علمية

دورية

تصدر عن الجمعية السعودية للمحاسبة

البحوث باللغة الإنجليزية

أثر نجاح نظام المحاسبة الرقمية على حوكمة الشركات:
دراسة تجريبية للبيئة السعودية.

د. أحمد إبراهيم المجرشي

كلية الأعمال - جامعة جازان

هل يؤدي التحول الرقمي إلى زيادة عدم كفاءة الاستثمار في
المملكة العربية السعودية؟ دور القيود المالية في تعديل هذه
الكفاءة

د. محمد عسيري

كلية إدارة الأعمال - جامعة الملك خالد

البحوث باللغة العربية

مدى توافق مناهج المحاسبة في الجامعات السعودية
مع المنهج التعليمي المحاسبي المقترح للهيئة
السعودية للمراجعين والمحاسبين.

أ. أميرة تركي الغامدي

كلية الاقتصاد والإدارة - جامعة الملك عبد العزيز

أ.د. فهدة سلطان السديري

كلية الاقتصاد والإدارة - جامعة الملك عبد العزيز



مجلة البحوث المحاسبية

دورية علمية متخصصة محكمة نصف سنوية تصدر عن
الجمعية السعودية للمحاسبة

المجلد السابع عشر- العدد الثاني -

1447هـ - 2026م

ح) الجمعية السعودية للمحاسبة ، 1447 هـ - 2026 م

فهرسة مكتبة الملك فهد الوطنية

الجمعية السعودية للمحاسبة

مجلة البحوث المحاسبية، الرياض، 1447 هـ - 2026 م

ردمد: 1319-691x

رقم إيداع: 1445/24273

ردمد إلكتروني: 2676-2676

الجمعية السعودية للمحاسبة

أهداف الجمعية:

تتمثل أهداف الجمعية فيما يلي:

- تنمية الجانب العلمي والمعرفي والبحثي والفكري في مجال التخصص والعمل على تطويره وتنشيطه.
- تحقيق التواصل العلمي بين أعضاء الجمعية العلمية.
- تقديم المشورة العلمية في مجال التخصص.
- تطوير الأداء العلمي والمهني لأعضاء الجمعية العلمية.
- تيسير تبادل الإنتاج العلمي والمعرفي والبحثي، والأفكار العلمية في مجال اهتمامات الجمعية العلمية، بين الهيئات والمؤسسات المعنية داخل المملكة وخارجها.

أنشطة الجمعية:

يتمثل نشاط الجمعية فيما يلي:

- إجراء البحوث العلمية وتشجيعها وتقديم الخدمات والاستشارات العلمية.
- تأليف الكتب العلمية وترجمتها في مجال اهتمامها وما يتصل بها من مجالات أخرى.
- إجراء الدراسات العلمية لتطوير جوانب الممارسة التطبيقية.
- عقد الحلقات الدراسية والدورات التدريبية وورش العمل التي تتصل بمجالات اهتمامها.
- إصدار الدراسات والنشرات والدوريات العلمية التي تتصل بمجالات اهتمامها.
- المشاركة في المعارض المحلية والدولية ذات العلاقة بمجال اهتمام الجمعية العلمية.
- دعوة العلماء والمفكرين من ذوي العلاقة للمشاركة في نشاطات الجمعية العلمية وذلك وفق الإجراءات النظامية المتبعة في الجامعة.
- تنظيم رحلات علمية لأعضائها وإقامة مسابقات علمية في مجال تخصصها.
- عقد الشراكات والاتفاقيات مع الجهات المحلية والدولية وفق الإجراءات النظامية المتبعة في الجامعة.
- عقد المؤتمرات والندوات العلمية في مجال تخصص الجمعية العلمية، وفق الإجراءات النظامية المتبعة في الجامعة.

مجلة البحوث المحاسبية

مجلة علمية محكمة نصف سنوية تصدر عن الجمعية السعودية للمحاسبة بجامعة الملك سعود لخدمة الفكر والعمل المحاسبي، وتعنى بنشر الأبحاث النظرية والتطبيقية التي تثري الفكر المحاسبي في المجالات المختلفة، وتفتح آفاقاً واسعة أمام حركة البحث والتأليف، والتي تخضع لضوابط محكمة من قبل لجان متخصصة.

وتهدف المجلة إلى الارتقاء بمهنة المحاسبة والمراجعة نظرياً وعملياً من خلال تشجيع ونشر الأبحاث العلمية الرصينة التي تتناول مشاكل بحثية محلية أو إقليمية أو دولية ذات صلة بمجالات المحاسبة والمراجعة والتمويل وأسواق المال. وتنشر الأبحاث في المجلة باللغة العربية واللغة الإنجليزية.

توجه المراسلات إلى هيئة تحرير المجلة على العنوان التالي:

مجلة البحوث المحاسبية الجمعية السعودية للمحاسبة

هاتف: 0114674263 (966)

saa@ksu.edu.sa



رئيس هيئة التحرير**أ. د. احسان بن صالح المعزاز**

جامعة أم القرى

نائب رئيس هيئة التحرير**د. محمد بن إبراهيم المفلح**

جامعة الملك سعود

أعضاء هيئة التحرير**أ. د. عبد العال هاشم أبو خشبة**

جامعة الملك عبد العزيز

أ. د. توفيق عبد المحسن الخيال

جامعة الملك عبد العزيز

د. صالح علي العقلا

الجامعة الإسلامية بالمدينة المنورة

د. نهى عبد العزيز العيسى

جامعة الأميرة نورة بنت عبد الرحمن

د. ليلى مبارك القحطاني

جامعة الملك سعود

الهيئة الاستشارية للمجلة**أ. د. خالد حسيني**

جامعة بانجور - المملكة المتحدة

د. فيصل بن صالح الصالحي

جامعة الملك سعود

شروط النشر بمجلة البحوث المحاسبية

يقتصر تبويب البحوث المحاسبية على ثلاث أبواب هي:

- بحوث محكمة.
- عرض كتب.
- تعليقات.

شروط ومعايير نشر البحوث:

1. أن يسهم البحث أو الدراسة في تعميق المعرفة في المجالات المحاسبية والمراجعة والتمويل وأسواق المال.
2. أن يتصف البحث بالجدية والأصالة العلمية وأن يكتب بلغة صحيحة.
3. ألا يكون البحث قد سبق نشره.
4. أن يكون البحث مستوفياً لشروط البحث العلمي، بما في ذلك ملخص البحث وعرض للمشكلة ومراجعة الأدبيات ذات العلاقة والمنهجية المتبعة ومناقشة أو تحليل للنتائج والتوصيات.
5. مراعاة قواعد التوثيق العلمي للبحوث في متن البحث فضلاً عن استخدام الحواشي لوضع أي بيانات تفصيلية لمصادر الاقتباس أو أي معلومات توضيحية بالإضافة إلى كتابة قائمة مرتبة للمراجع في نهاية البحث.
6. يجب مراعاة الضوابط بصدد استخدام الهوامش والمراجع:
 - أ. المراجع: يتم الإشارة إلى المراجع في متن البحث، على أن تقدم المراجع جميعها تحت عنوان "المراجع" في نهاية البحث بالطريقة المتبعة.
 - ب. الدوريات: يشار إليها في متن البحث أما في قائمة المراجع فتكتب حسب المعيار التالي: يبدأ المرجع باسم عائلة المؤلف ثم الأسماء الأولى واختصاراتها، فعنوان البحث (بين علامتي تنصيص)، فاسم الدورية (تحت خط)، المجلد، العدد، تاريخ النشر، الصفحة أو الصفحات المشار إليها.
 - ج. الكتب: يشار إليها مع ذكر الصفحات أما في قائمة المراجع فيكتب اسم عائلة المؤلف ثم الأسماء الأولى أو اختصاراتها، فعنوان الكتاب (تحت خط)، فمكان النشر، الناشر، سنة النشر، الصفحة أو الصفحات المشار إليها.

د. الهوامش: تستخدم الهوامش لتزويد القارئ بمعلومات توضيحية، ويشار إلى التعليق في المتن بأرقام مرتفعة عن السطر بدون أقواس وتوضع في أسفل الصفحة وأن تكون مختصرة ما أمكن ذلك.

عرض الكتب:

يراعي في الكتاب موضوع العرض أن يكون مميزاً ومفيداً ومن الكتب المصدرة حديثاً ويخضع عرض الكتب للضوابط التالية:

1. عرض تقرير (توصيف مختصر) للكتاب يشتمل على ملخص بمحتويات فصول الكتاب.
2. عرض نقدي للكتاب، ويشتمل على عرض نقدي لأهم الآراء والأفكار العلمية المطروحة في الكتاب مدعماً بالأسانيد والحجج العلمية بما في ذلك:
 - أ. التخصص الدقيق.
 - ب. الملاءمة للمقررات الدراسية.
 - ج. الملاءمة للممارسين والتطبيق العملي.
 - د. الإضافات التي ينفرد بها الكتاب بالمقارنة بالمراجع الأخرى.
 - هـ. الشمول وطريقة العرض والعمق.
3. مقترحات لتطوير الكتاب، ويشمل اقتراح بعض الآراء والأفكار العلمية التي يمكن أن تساهم في تطوير الكتاب على أن تكون هذه الآراء والأفكار مدعومة بالأسانيد والحجج العلمية، ويمكن أن تشمل مقترحات التطوير ما يلي:
 - أ. إضافة موضوعات كان يجب تغطيتها (كلياً أو جزئياً).
 - ب. تحسين في طريقة عرض فصول معينة من الكتاب.
 - ج. نواحي فنية وعامة.

التعليقات:

تكون التعليقات على البحوث التي سبق نشرها، ويجب أن تكون مؤيدة بأسانيد علمية تدعم وجهة نظر المعلق وتخضع لنفس قواعد النشر المطبقة على الأبحاث المحكمة من حيث إتباع الأسلوب العلمي، وترسل التعليقات لمؤلف البحث موضع التعليق وينشر الرد مع التعليق في نفس العدد.

قائمة المحتويات

رقم الصفحة	الموضوع
9	مدى توافق مناهج المحاسبة في الجامعات السعودية مع المنهج التعليمي المحاسبي المقترح للهيئة السعودية للمراجعين والمحاسبين.
145	أثر نجاح نظام المحاسبة الرقمية على حوكمة الشركات: دراسة تجريبية للبيئة السعودية.
98	هل يؤدي التحول الرقمي إلى زيادة عدم كفاءة الاستثمار في المملكة العربية السعودية؟ دور القيود المالية في تعديل هذه الكفاءة

مدى توافق مناهج المحاسبة في الجامعات السعودية مع المنهج التعليمي المحاسبي المقترح للهيئة السعودية للمراجعين والمحاسبين.

د. فهدة سلطان السديري
أستاذ بقسم المحاسبة
كلية الاقتصاد والإدارة
جامعة الملك عبد العزيز - جدة
المملكة العربية السعودية

أ. أميرة تركي الغامدي
محاضر بقسم المحاسبة
كلية الاقتصاد والإدارة
جامعة الملك عبد العزيز - جدة
المملكة العربية السعودية

الملخص

الجامعات مسؤولة عن تقديم التعليم المحاسبي، من خلال بناء الخطط الدراسية المواكبة لاحتياجات سوق العمل. وقد قامت الهيئة السعودية للمحاسبين والمراجعين بتطوير منهج تعليمي نموذجي وفقاً لأفضل التوصيات الدولية لتلبية احتياجات سوق العمل وتطلعات أصحاب المصالح لتتبنه الجامعات. وتهدف هذه الدراسة للتعرف على مدى التوافق بين مناهج التعليم المحاسبي بمرحلة البكالوريوس في الجامعات السعودية والمنهج التعليمي المحاسبي للهيئة السعودية للمراجعين والمحاسبين. وتبّع الدراسة أسلوب تحليل المحتوى للخطط الدراسية وتوصيفات المقررات لبكالوريوس المحاسبة في الجامعات عينة الدراسة والبالغ عددها 20 جامعة، حيث تم إعداد ثلاث بطاقات لتحليل الكفاءات العامة، والمقررات المحاسبية، وموضوعات المقررات المحاسبية. وتظهر نتائج التحليل أن متوسط الكفاءات العامة لعينة الدراسة تقارب 12 كفاءة من أصل 17 كفاءة مقترحة من قبل الهيئة السعودية للمحاسبين والمراجعين، ومتوسط المقررات المحاسبية المتوافقة مع مقترح الهيئة للعينة تقارب 16 مقرر من أصل 26 مقرر مقترح، ويبلغ متوسط موضوعات المقررات المحاسبية التي غطتها مقررات المحاسبة لعينة الجامعات ما يقارب 76 موضوع متوافق مع اقتراح الهيئة للموضوعات في كل مقرر، وذلك من أصل 239 موضوع مقترح. في الوقت الراهن، يمكن إحداث التغييرات في الخطط الدراسية لبكالوريوس المحاسبة ورفع نسبة توافقها مع المنهج التعليمي المحاسبي المقترح من قبل الهيئة السعودية للمحاسبين والمراجعين، لتلبية المعايير المحلية والعالمية، وتحسين جودة المخرجات التعليمية المواكبة لمتطلبات سوق العمل.

الكلمات المفتاحية:

التعليم المحاسبي، الجامعات السعودية، الهيئة السعودية للمحاسبين والمراجعين

Abstract

Universities are responsible for providing accounting education, by building study plans that keep pace with the needs of the labor market. The Saudi Organization for Chartered and Professional Accountants has developed an educational curriculum model in accordance with the best international recommendations to meet the needs of the labor market and the aspirations of stakeholders for universities to adopt. This study aims to evaluating the alignment of accounting curricula at the bachelor's level in Saudi universities with the SOCPA curriculum model. This study follows a content analysis method for study plans and course descriptions for the Bachelor of Accounting in sample of 20 universities, where three cards were prepared to analyze general competencies, accounting courses, and accounting courses topics. The results of the analysis show that the average of general competencies for the study sample are approximately 12 out of 17 competencies proposed by the Saudi Organization for Chartered and Professional Accountants, and the average of accounting courses compatible with the Authority's proposal for the sample are approximately 16 courses out of 26 proposed courses, and the average of accounting courses topics covered by the sample of universities are approximately 76 topics compatible with SOCPA proposal for topics in each course, out of 239 proposed topics. Currently, changes can be made in the study plans for the Bachelor of Accounting and raise their compatibility with the accounting educational curriculum proposed by the Saudi Organization for Chartered and Professional Accountants, to meet local and international standards, and improve the quality of educational outcomes that keep pace with the requirements of the labor market

Keywords:

accounting education, Saudi universities, Saudi Organization for Accountants and Auditors

1. المقدمة

تقوم الجامعات بدور مهم في إعداد الكفاءات المحاسبية المؤهلة بمهارات تمكنهم من مزاولة المهنة، وذلك من خلال مواكبتها أساليب تعليمية تعتمد على الكفاءة في الإعداد المهني، وتركز على إكساب المتعلمين المهارات والقدرات المهنية اللازمة، وهذا يقتضي انتقال التعليم المحاسبي من الأسلوب التقليدي إلى أسلوب صقل المهارات الذي دعت إليه المنظمات المهنية والاتحاد الدولي للمحاسبين (IFAC) (صالح، 2017).

وقد أشاد الاتحاد الدولي للمحاسبين (IFAC) بالدور الذي تقوم به الهيئة السعودية للمحاسبين والمراجعين في سبيل التطوير من التعليم المحاسبي وتحقيق الجودة في المخرجات التعليمية الجامعية في السعودية. حيث تبنت الهيئة السعودية للمراجعين والمحاسبين تطبيق معايير التعليم المحاسبي في السعودية (IES) International Education Standards، كما أطلقت العديد من المبادرات والمشاريع لتطوير العمل المحاسبي وجودة التعليم، منها مبادرة مواءمة مخرجات التعليم مع متطلبات سوق العمل. كما قامت الهيئة بتطوير منهج تعليمي نموذجي وفقاً لأفضل التوصيات الدولية بما يلبي متطلبات سوق العمل وتطلعات أصحاب المصلحة ليتم عرضه على الجامعات لتتبناه، مما يساهم في الارتقاء بجودة التعليم المحاسبي الجامعي بما يتماشى مع التطورات والتغيرات الاقتصادية والاجتماعية والتقنية المتسارعة على الصعيد المحلي والعالمي (الهيئة السعودية للمراجعين والمحاسبين، 2023).

وعلى الرغم من كون التعليم المحاسبي مهم جداً إلا أنه توجد مشكلة قائمة فيه تتعلق بتوفير الخريجين الملائمين لسوق العمل، بسبب الفجوة بين خريجين الجامعات ومتطلبات سوق العمل، والتي من الممكن حلها من خلال التنسيق بين أقسام المحاسبة في الجامعات والجمعيات المهنية ودوائر التعليم المستمر (حسان، ٢٠١٨). والجدير بالذكر، أن من أهداف أقسام المحاسبة في التعليم العالي السعودي ضمان وجود تحديثات مستمرة وكافية وجادة للمعرفة (أبو العماره حركان، ٢٠١٩)، وهذا بدوره يقتضي ضرورة تطوير الخطط الدراسية وما تحويه من مقررات دراسية في أقسام المحاسبة في الجامعات السعودية بما يتماشى مع المتطلبات العملية والمهنية؛ لمعالجة أوجه القصور في مناهج التعليم المحاسبي بما يعين الخريجين في ممارستهم لمهنة المحاسبة والمراجعة بكفاءة وجدارة.

ومن هذا المنطلق هدفت هذه الدراسة لتحليل محتوى الخطط الدراسية ومقررات التعليم المحاسبي في الجامعات السعودية، وتحديد مواطن القوة والضعف فيها، والوقوف على مدى مواكبتها لاحتياجات سوق العمل وذلك من خلال الإجابة عن سؤال الدراسة التالي:

ما مدى توافق مناهج التعليم المحاسبي بمرحلة البكالوريوس في الجامعات السعودية مع المنهج التعليمي المحاسبي المقترح للهيئة السعودية للمراجعين والمحاسبين؟

ويتفرع عن هذا السؤال الأسئلة الفرعية التالية؛

- ما مدى تلبية مناهج التعليم المحاسبي بمرحلة البكالوريوس في الجامعات السعودية للكفاءات العامة المقترحة في المنهج التعليمي المحاسبي للهيئة السعودية للمراجعين والمحاسبين؟
- ما مدى تلبية مناهج التعليم المحاسبي بمرحلة البكالوريوس في الجامعات السعودية للمقررات المحاسبية المقترحة في المنهج التعليمي المحاسبي للهيئة السعودية للمراجعين والمحاسبين؟
- ما مدى تلبية مناهج التعليم المحاسبي بمرحلة البكالوريوس في الجامعات السعودية لموضوعات المقررات المحاسبية المقترحة في المنهج التعليمي المحاسبي للهيئة السعودية للمراجعين والمحاسبين؟

حيث قامت الهيئة السعودية للمراجعين والمحاسبين بالتعاون مع جامعة الأمير سلطان بإعداد منهج تعليمي محاسبي وهو يعتبر دليل استرشادي مقدم للجامعات والكليات لبناء الخطة الدراسية لمرحلة البكالوريوس في تخصص المحاسبة بما يلأئم متطلبات سوق العمل، وذلك من أجل تخريج الكفاءات المحاسبية السعودية المؤهلة. ولقد أشرف على إعداد هذا المنهج فريق عمل يتكون من أعضاء هيئة التدريس بجامعة الأمير سلطان وفريق إشرافي من الهيئة. حيث تم تطوير هذا المنهج التعليمي للهيئة من خلال تصميم بحثي شامل يعتمد على تحليل البيانات وتوزيع الاستبانات وإجراء المقابلات والاجتماعات مع مسؤولين من الهيئة وغيرهم من الخبراء الخارجيين ومجموعات التركيز. وكذلك قامت الهيئة بإجراء دراسة مقارنة مع 30 جامعة عالمية ومحلية للاستفادة من خبراتها، كما تم إجراء مناقشات مجموعة التركيز والتي تشمل منسويين من منشآت المحاسبة والمراجعة بما فيها شركات المحاسبة الأربعة الكبرى، والجهات الحكومية مثل وزارة المالية، ووزارة التعليم، ووزارة الموارد البشرية، ووزارة الاستثمار، ووزارة التجارة. ولإعداد المسودة النهائية للمنهج التعليمي تم إجراء تحكيم لهذه المسودة من قبل 13 مُحكِّم من الخبراء الأكاديميين والمهنيين المحليين والدوليين للاستفادة من التغذية الراجعة حول مسودة المناهج النموذجية (الهيئة السعودية للمراجعين والمحاسبين، 2023). كما قامت الهيئة السعودية للمراجعين والمحاسبين بعدة جهود في سبيل التعليم المحاسبي ومنها توقيع مذكرات تعاون مع بعض الجامعات السعودية؛ منها الاتفاقية التي وقعتها مع جامعة القصيم لتحقيق التعاون بينهم في مجال التعليم والتطوير والتدريب بما يتماشى مع رؤية السعودية 2030. ومما أشارت إليه الاتفاقية دعم وتأهيل الأساتذة في تحسين وتقييم مخرجات التعلم، وتبادل الخبرات بين الهيئة والجامعة (جامعة القصيم، 2023). وكذلك توقيع الهيئة لمذكرة تعاون مع جامعة الإمام محمد بن سعود الإسلامية، والتي تهدف للتعاون الأكاديمي والمهني بينهما في مجالات متعددة منها تطوير برامج المحاسبة بما يتماشى مع احتياجات سوق العمل والمعايير الدولية، كما تضمنت الاتفاقية مبادرة معامل المحاكاة المحاسبية، وذلك من خلال توفير برامج وأنظمة محاسبية وتدريب الطلبة على استخدامها (جامعة الإمام محمد بن سعود الإسلامية، 2023).

2. الدراسات السابقة

من خلال استعراض الباحثان للدراسات السابقة المحلية والأجنبية ذات الصلة بهذه الدراسة، وذلك بهدف الاستفادة من نتائجها وإجراءاتها ومناهجها وتوصياتها، اتضح أن هناك اهتمام كبير في موضوع التعليم المحاسبي؛ وتمت الاستفادة من جميع الدراسات السابقة والاطلاع على جميع جوانب الموضوع والعوامل المؤثرة فيه، من أجل إثراء الإطار النظري للدراسة الحالية، والتعرف على المنهجيات والطرق المستخدمة في تلك الدراسات، من أجل الوصول إلى نتائج الدراسة الحالية مدعومة بنتائج وتوصيات الدراسات السابقة كنماذج واقعية. وعلى الرغم من كثرة وتعدد الدراسات والأبحاث السابقة التي تناولت موضوع التعليم المحاسبي من نواحي مختلفة، إلا أن نتائج تلك الدراسات بشكل عام كانت متقاربة على حد سواء، في توصلها بأن مناهج التعليم المحاسبي في الجامعات تحتاج إلى التطوير والتحسين المستمر من نواحي مختلفة حتى تواكب احتياجات سوق العمل المتغيرة والمتطورة بشكل مستمر.

فمناهج التعليم المحاسبي تم تناولها في الدراسات السابقة من نواحي وجوانب مختلفة؛ سواء من خلال اعتمادها للمعايير الدولية للتعليم المحاسبي الصادرة عن الاتحاد الدولي للمحاسبين (AIDhubaibi, 2022)، (شويمان، 2021)، (عرب، 2014)، (الفكي، 2014)، أو تركيزها على المعيار الثاني منه (الجهني وشحاتة، 2022)، أو المعيار الثالث (Zureigat, 2018)، (الحجيلي والرحيلي، 2017)، أو المعيار الرابع (الجاسر والعسيري، 2019)، أو معايير الاعتماد الأكاديمي الدولي لبرامج المحاسبة (الجدلي وعبدالرحمن، 2019)، أو المعايير الدولية لإعداد التقارير المالية (AlShahrani, 2021)، أو اقتراح إطار لتطوير مهارات الطلاب الناعمة والتفكير الأخلاقي (England, Blix, Carrington, & Harris, 2022)، أو قدرة مناهج التعليم المحاسبي على إكساب المهارات المختلفة التي يجب أن يتحلّى بها خريجي المحاسبة من خلال استكشاف وجهات نظر أعضاء قسم المحاسبة (Birt, Safari & de Castro, 2023)، وأرباب العمل (Ebaid, 2021)، (Zureigat, 2015)، والطلبة (AlMallaki, Tan & Laswad, 2020)، وهناك من ناحية أخرى بعض الدراسات التي تناولت تطوير الكفاءات القائمة على المهارات (Bailey & Ragland, 2022)،

والفجوة بين التعليم والممارسة (Elo, Pätäri, Sjögrén & Mättö, 2023)، (Srdar, 2017)، أو موافقة التعليم المحاسبي لمتطلبات أصحاب العمل (Georgiou, 2018)، ومتطلبات سوق العمل (Carvalho & Almeida, 2022)، (العنسي، 2022)، (محمدي، القثامي، وعويس، 2017)، ومن خلال أوجه النظر المختلفة لمتطلبات سوق العمل كالخريجين (AlHussain, 2019)، وأعضاء هيئة التدريس وأرباب العمل (أبو بكر، 2021)، أو من خلال تضمين التعليم المحاسبي المتكامل مع العمل (Twyford & Dean, 2023)، أو من خلال التعرف على المقررات الأساسية في أقسام المحاسبة (Zekany, 2020)، أو من ناحية تناولها لمراجعة الأدبيات السابقة في التعليم المحاسبي (Tsiligiris & Bowyer, 2021)، أو تناولها للسمات الشخصية المؤهلة لممارسة الشك المهني لمراقبي الحسابات (مطاوع، 2019)، أو من جانب توظيف الجدارات المهنية للمراجع الخارجي لقياس موافقة مخرجات التعليم المحاسبي مع احتياجات سوق العمل (مندورة والسديري، 2022)، أو من ناحية اقتراح نموذج يهدف إلى تقييم جودة البرامج المحاسبية من منظور الاعتماد الأكاديمي (عطية وزهران، 2008).

وركزت هذه الدراسة في استعراضها لغالبية الدراسات السابقة على الدراسات التي بحثت عن التعليم المحاسبي في المملكة العربية السعودية؛ ويرجع السبب في ذلك كون هذه الدراسة تركز على مدى قدرة الجامعات السعودية لتطبيق المنهج التعليمي المحاسبي للهيئة السعودية للمراجعين والمحاسبين؛ مما تطلب تسليط الضوء على الأدبيات السابقة المتعلقة بواقع التعليم المحاسبي في المملكة العربية السعودية من النواحي المختلفة.

تطوير التعليم المحاسبي وذلك من خلال التعاون بين الأكاديميين والمهنيين لسد الفجوة بين التعليم المحاسبي والممارسة (Srdar, 2017)، كما أشارت دراسة (الجدلي وعبد الرحمن، 2019) إلى توطيد العلاقة بين أقسام المحاسبة وسوق العمل من خلال برامج مشتركة، وأوصت دراسة (مطاوع، 2019) بضرورة تطوير مقررات التعليم المحاسبي،

من خلال إعادة تصميم مناهج المقررات المحاسبية بالتعاون مع الهيئة السعودية للمراجعين والمحاسبين، كما أوصت بتبادل الخبرات بين أعضاء هيئة التدريس في الجامعات السعودية ومستشاري التدريب والترجمة في الهيئة السعودية للمراجعين والمحاسبين، كما أوصت دراسة (Aldhubaibi, 2022) بضرورة تعاون الجامعات السعودية مع الهيئات المهنية المحاسبية المحلية والدولية، مثل الهيئة السعودية للمراجعين والمحاسبين (SOCPA) والاتحاد الدولي للمحاسبين (IFAC)، للعمل على تحسين برامج التعليم المحاسبي، والذي يتفق بدوره مع ما أوصت به دراسة (العنسي، 2022) بالعمل على إقامة شراكات بين الجامعات والهيئة السعودية للمراجعين والمحاسبين (SOCPA) من جهة، وقطاع الأعمال من جهة أخرى. حيث أن دراسة (AlShahrani, 2021) أشارت إلى ضعف العلاقات المتبادلة بين ثلاث جهات، وهي: الهيئة السعودية للمراجعين والمحاسبين، والجامعات، والشركات، وأن هناك غياب للتعاون بين كلاً من الجامعات والشركات فيما يختص بالتدريب على المعايير الدولية لإعداد التقارير المالية.

وقد تنوعت المنهجيات التي اتبعتها الدراسات السابقة إلى مناهج نوعية، ومناهج كمية. والجدير بالذكر أن مما يميز هذه الدراسة هو استخدامها للمنهج النوعي، نظراً لما أشار إليه الرشيد (2021)، عن حاجة البحث في الوطن العربي إلى التعاون بين مختلف الأكاديميين؛ لنشر وتوسيع دائرة الاهتمام بالأبحاث النوعية من ناحية، وأسلوب تحليل المحتوى النوعي من ناحية أخرى.

وعلى الرغم من تعدد الأبحاث الخاصة بالتعليم المحاسبي واقعاً، وتطويراً، والمشاكل والتحديات التي تواجهها وسبل معالجتها وتحسينها، ومدى توافقها مع احتياجات سوق العمل؛ إلا أن المؤتمرات والندوات، واللقاءات، والدورات التدريبية، والملتقيات العلمية والمهنية، وورش العمل ما زالت تعنى بالتعليم المحاسبي، وتوليه عناية ملحوظة لتحسين وتطوير المخرجات التعليمية تماشياً مع التطورات الاقتصادية والاجتماعية في بيئة العمل. والمتتبع لتلك الجهود البحثية المبذولة والمتوالية في هذا الشأن يلحظ مدى اهتمام الباحثين والجهات المختلفة بموضوع التعليم المحاسبي.

(الهيئة حيث ساهمت المملكة العربية السعودية في تطوير مخرجات التعليم المحاسبي، ولعبت في ذلك الهيئة السعودية للمراجعين والمحاسبين دوراً محورياً من خلال قيامها بالعديد من البرامج والشراكات مع الجامعات السعودية وتقديمها لعدد من المبادرات في سبيل تطوير التعليم المحاسبي، حيث أعلنت الهيئة في عام 2022 تبنيها لمنهج تعليمي محاسبي لمرحلة البكالوريوس بما يلبي متطلبات أصحاب المصلحة ويربط بين التعليم المحاسبي وسوق العمل، لتستفيد الجامعات منه في بناء مقررات المحاسبة (الهيئة السعودية للمراجعين والمحاسبين، 2023).

وتكمن أهمية هذه الدراسة في تكوين تصور عن واقع التعليم المحاسبي في الجامعات السعودية، ومدى توافقه مع المنهج التعليمي المحاسبي للهيئة السعودية للمراجعين والمحاسبين، مما يساهم في تطوير وتنمية مناهج التعليم المحاسبي، ورفع كفاءة العملية التعليمية في التعليم العالي، واستخدام أساليب تعليمية تحسن من جودة المخرجات التعليمية. كذلك تكتسب الدراسة أهميتها في أنها تتماشى مع الاهتمامات الحالية المتزايدة من قبل الجهات المختلفة بتطوير التعليم المحاسبي ليتوافق مع متطلبات سوق العمل، ولتقليل الفجوة بين كلاً من مخرجات التعليم في الجامعات ومتطلبات واحتياجات سوق العمل، والارتقاء بمستوى أداء المهنة. كما تخدم نتائج الدراسة عدة فئات في المجتمع كالخريجين وأصحاب المصلحة وأرباب سوق العمل، بالإضافة لهذه الفئات تقدم هذه الدراسة أيضاً معلومات ذات أهمية لأعضاء هيئة التدريس في أقسام المحاسبة في التعليم العالي، بحيث يتم توظيفها في تطوير المناهج التعليمية والخطط الدراسية وفقاً لمتطلبات بيئة العمل المعاصرة وذلك من حيث المعارف والمهارات والقيم التي يلزم أن يكتسبها الخريج حتى يتمكن من التكيف مع متطلبات المهنة التي سيشغلها بعد تخرجه ويكون قادراً على تحقيق التميز الوظيفي ومؤهللاً لاجتياز الاختبارات المهنية.

لذلك جاءت فكرة هذه الدراسة لمواصلة البحث عن سبل جادة لتطوير مناهج التعليم المحاسبي في ضوء المنهج التعليمي الذي أعدته الهيئة مؤخراً حتى تواكب المخرجات التعليمية في الجامعات متطلبات بيئة العمل المحلية والدولية.

كما تعتبر هذه الدراسة الأولى من نوعها من حيث موضوع الدراسة على حد علم الباحثة؛ ويرجع السبب في ذلك حداثة الموضوع وعدم تواجد أي دراسات بعد تناول موضوع التوافق بين مناهج التعليم المحاسبي في الجامعات السعودية والمنهج التعليمي المحاسبي للهيئة السعودية للمراجعين والمحاسبين، وهذه نقطة تميز لهذه الدراسة من وجهة نظر الباحثة. كما تساهم هذه الدراسة في خدمة العديد من فئات المجتمع على تحقيق الأهداف المختلفة لهم وبالتالي تحقيق الأهداف التي تخدم الصالح العام، كما تعين هذه الدراسة أقسام المحاسبة بالجامعات على تحديد أوجه القصور في مناهجها وبما يعين على تصميم خططها الدراسية وتحديث توصيفات مقرراتها وفق احتياجات سوق العمل في ضوء القياس والمقارنة بالمنهج التعليمي المحاسبي للهيئة السعودية للمراجعين والمحاسبين، وذلك من أجل تخريج الكفاءات الوطنية المؤهلة لممارسة المهنة، والتعزيز من جودة المخرجات التعليمية، وزيادة نسب النجاح في الاختبارات المهنية المحاسبية.

3. المنهجية

تتبع هذه الدراسة المنهج النوعي، حيث تم استخدام أسلوب تحليل المحتوى لمناسبتها لطبيعة الدراسة وأهدافها، وذلك لتحديد وتحليل أوجه التشابه والاختلاف من خلال مقارنة مناهج التعليم المحاسبي في الجامعات السعودية بالمنهج التعليمي المحاسبي للهيئة السعودية للمراجعين والمحاسبين. حيث تم إعداد ثلاث بطاقات تحليل محتوى للخطط الدراسية وتوصيف المقررات في برامج بكالوريوس المحاسبة في الجامعات السعودية عينة الدراسة، وذلك من ثلاثة جوانب؛ الكفاءات العامة، والمقررات المحاسبية، وموضوعات المقررات المحاسبية. ويمثل المجتمع في هذه الدراسة الجامعات الحكومية في المملكة العربية السعودية ويبلغ عددها 29 جامعة (وزارة التعليم، 2023)، أما العينة محل الدراسة والتي حُلل محتواها التعليمي المحاسبي فهي تتكون من الجامعات السعودية الحكومية الحاصلة على الاعتماد المؤسسي الكامل في عام 2023 من قبل هيئة تقويم التعليم والتدريب ممثلة بالمركز الوطني للتقويم والاعتماد الأكاديمي، ويبلغ عددها 23 جامعة حكومية (هيئة تقويم التعليم والتدريب، 2023)، مع استبعاد جامعتي الملك سعود بن عبد العزيز للعلوم الصحية، والجامعة الإسلامية لأنها لا تحتوي على تخصص بكالوريوس المحاسبة (الهيئة السعودية للمراجعين والمحاسبين، 2023)، واستبعاد جامعة حائل لتعذر الوصول إلى توصيف المقررات الدراسية

لبكالوريوس المحاسبة، حيث تواصلت جامعة الملك عبدالعزيز بشكل رسمي مع بعض الجامعات التي تعذر الوصول إلى بياناتها المطلوبة من المواقع الإلكترونية الخاصة بها لغرض الحصول على توصيفات مقرراتها، ولم يصل أي رد رسمي من جامعة حائل، وبذلك تصبح العينة محل الدراسة 20 جامعة؛ وهي تشمل جامعة الملك عبد العزيز (KAU)، جامعة أم القرى (UQU)، جامعة الملك سعود (KSU)، جامعة طيبة (TIBAU)، جامعة القصيم (QU)، جامعة الإمام محمد بن سعود الإسلامية (IMSIU)، جامعة الأميرة نورة بنت عبد الرحمن (PNU)، جامعة الأمير سطام بن عبد العزيز (PSAU)، جامعة المجمعة (MU)، جامعة الطائف (TU)، جامعة الإمام عبد الرحمن بن فيصل (IAU)، جامعة الملك فيصل (KFU)، جامعة الملك فهد للبترول والمعادن (KFUPM)، جامعة بيشة (BIU)، جامعة جازان (JZNU)، جامعة الباحة (BU)، جامعة الملك خالد (KKU)، جامعة نجران (NU)، جامعة تبوك (UT)، جامعة الجوف (JU). وسبب اختيار الباحثة الجامعات الحكومية الحاصلة على الاعتماد المؤسسي الكامل كعينة الدراسة، لضمان وجود التوافق والتكافؤ بين الجامعات محل الدراسة، حيث تتضمن معايير الاعتماد المؤسسي استيفاء البرامج الأكاديمية في المؤسسات التعليمية لمعايير ومتطلبات الإطار الوطني للمؤهلات، والتصنيف السعودي الموحد للمستويات التعليمية، والمعايير الأكاديمية التخصصية وتلبية حاجات سوق العمل والمجتمع (هيئة تقويم التعليم والتدريب، 2023). كما يتوافق حجم العينة مع مستوى أهداف الدراسة لتمثيل المجتمع بشكل متكامل وشامل.

حُلل المحتوى التعليمي المحاسبي لعينة الدراسة بالاعتماد على ثلاث بطاقات للتحليل؛ وذلك على النحو التالي:

- بطاقة تحليل الكفاءات العامة
- بطاقة تحليل المقررات المحاسبية الأساسية والاختيارية
- بطاقة تحليل الموضوعات التي تناقشها المقررات المحاسبية

ولغرض تحليل محتوى المناهج التعليمية أُتبعت الخطوات التالية:

1. الاطلاع والقراءة المتأنية للمنهج التعليمي المقترح من قبل الهيئة السعودية للمراجعين والمحاسبين SOCPA Model
2. دراسة مفهوم تحليل المحتوى بغرض التعرف على إجراءاته وخطواته
3. الاطلاع على الدراسات والأدبيات التي تناولت أسلوب تحليل المحتوى للمقررات التعليمية
4. تصميم بطاقة تحليل الكفاءات العامة، وبطاقة تحليل مقررات المحاسبة، وبطاقة تحليل موضوعات المقررات المحاسبية استناداً لمقترح الهيئة
5. جمع الخطط الدراسية لبرامج بكالوريوس المحاسبة وتوصيفات مقرراتها من المواقع الإلكترونية الرسمية للجامعات عينة الدراسة، والتواصل مع بعض الجامعات في حال عدم توفر توصيف مقرراتها
6. الاطلاع والقراءة المتأنية للخطط الدراسية وتوصيف المقررات لكل جامعة على حدة
7. تحليل محتويات الخطط الدراسية وتوصيفات المقررات المحاسبية موضع الدراسة، وتفرغها في بطاقات تحليل المحتوى المعدة لهذا الغرض وفق اعتبارات محددة وموضوعية
8. التحقق من ثبات بطاقة تحليل المحتوى
9. إجراء المعالجات الإحصائية المناسبة على عمليات التحليل
10. تحليل النتائج وعرضها وتفسيرها، ومناقشتها في ضوء أسئلة الدراسة، وأهدافها
11. تقديم التوصيات والاقتراحات في ضوء نتائج الدراسة

والجدير بذكره في هذا المقام سرد أهم الاعتبارات التي أخذ بها في عملية تحليل المحتوى:

- اقتصر تحليل المحتوى على ما تضمنته وأفصحت عنه الخطط الدراسية وتوصيفات المقررات لبرنامج بكالوريوس المحاسبة في الجامعات عينة الدراسة
- اشتملت كلاً من بطاقة تحليل الكفاءات العامة، وبطاقة تحليل المقررات المحاسبية على جميع الجامعات عينة الدراسة في كل بطاقة، كما تضمنت كل بطاقة التكرارات والنسب المئوية الخاصة بكل جامعة، ويعد برنامج بكالوريوس المحاسبة في الجامعة متضمن على الكفاءة أو المقرر المحاسبي في حال تناول المقرر الدراسي الجامعي الوصف العام للكفاءة المقترحة أو المقرر المحاسبي في مقترح الهيئة، وفي بطاقة تحليل الكفاءات العامة، وبطاقة تحليل المقررات المحاسبية تشير علامة (*) إلى كون المقرر الجامعي الذي يتناول الوصف العام للكفاءة أو المقرر المحاسبي مقرر اختياري، وفي بطاقة تحليل المقررات المحاسبية تشير علامة (**) إلى وجود أكثر من مقرر محاسبي جامعي أساسي يتناول الوصف العام للمقرر المقترح، كما تشير علامة (***) إلى وجود أكثر من مقرر محاسبي جامعي أساسي واختياري يتناول الوصف العام للمقرر المقترح
- أعدت بطاقة تحليل موضوعات المقررات المحاسبية لكل جامعة على حدة، استناداً للمقررات المحاسبية المختلفة التي تتضمنها كل جامعة والتي أُشير إليها في بطاقة تحليل المقررات المحاسبية، ويُشير الصفر (0) إلى عدم تضمن الخطة الدراسية وتوصيف المقرر في الجامعة للعنصر المقترح استناداً لمنهج SOCPA، ويُشير الواحد (1) إلى تضمن الخطة الدراسية وتوصيف المقرر في الجامعة للعنصر المقترح استناداً لمنهج SOCPA- عُرضت بطاقة تحليل موضوعات المقررات المحاسبية بحيث تشمل على نتائج تحليل موضوعات الجامعات كلها، وذلك في صورة تكرارات ونسب مئوية ومتوسطات وانحرافات معيارية
- ولقياس ثبات بطاقات تحليل المحتوى موضع الدراسة أُستخدمت طريقة (حساب معامل الثبات عبر الزمن)، والتي تعتمد على قيام الباحث ذاته بتحليل المادة مرتين، على أن يكون بين التحليلين مدة زمنية تفصل بينهما، وذلك دون الرجوع إلى التحليل الأول (طعمية، 2008). وعليه خُلت جامعتين بشكل عشوائي وهما جامعة الملك عبد العزيز وجامعة الملك سعود، وذلك بعد مرور أربعة أشهر من التحليل الأول لكل من الكفاءات العامة، والمقررات المحاسبية، وموضوعاتها.

ومن ثم أستخدم معامل الاتفاق (الثبات) للتأكد من ثبات الأداة في ضوء معادلة هولستي (Holsti) الآتية:

$$\text{معامل الثبات} = 2 \div (2\text{ن} + 1\text{ن})$$

حيث أن:

(ت) ترمز إلى عدد الحالات المتفق عليها

(2ن) ترمز إلى عدد الحالات في التحليل الثاني

(1ن) ترمز إلى عدد الحالات في التحليل الأول

جدول (1): نتائج تحليل محتوى جامعة الملك عبد العزيز، وجامعة الملك سعود عبر الزمن لقياس ثبات الأداة

نقاط الاتفاق	جامعة الملك سعود		نقاط الاتفاق	جامعة الملك عبد العزيز		وجه المقارنة
	التحليل الثاني	التحليل الأول		التحليل الثاني	التحليل الأول	
١٤	١٤	١٤	١٣	١٣	١٤	الكفاءات العامة
١٤	١٦	١٤	١٢	١٦	١٢	المقررات المحاسبية
٧٠	٧٤	٦٩	٧٢	٧٧	٧٤	موضوعات المقررات المحاسبية

ويوضح الجدول (1) نتائج التحليل لجامعة الملك عبد العزيز، وجامعة الملك سعود في كل من بطاقات تحليل المحتوى موضع الدراسة، حيث بلغت قيمة معامل الثبات في جامعة الملك عبد العزيز للكفاءات العامة، المقررات المحاسبية، وموضوعات مقررات المحاسبة على التوالي عند تطبيق معادلة هولستي (0,96)، (0,86)، (0,95). أما بالنسبة لجامعة الملك سعود فقد بلغت قيمة معامل الثبات فيها للكفاءات العامة، المقررات المحاسبية، وموضوعات مقررات المحاسبة على التوالي عند تطبيق معادلة هولستي (1)، (0,93)، (0,98). وعليه فإن بطاقات تحليل المحتوى الثلاث لكلا الجامعتين تتمتع بمعاملات ثبات مقبولة وجيدة. ومن ناحية الأساليب والمعالجات الإحصائية؛ فإن أسلوب تحليل المحتوى يعتمد على كلاً من الوصف الكمي والموضوعي المنظم للمحتوى، كما يعتمد على تقديرات كمية ورقمية لتكرارات المصطلحات، والمفاهيم، والموضوعات، والنتائج، والأساليب، والإجراءات البحثية، مما يساهم في التوصل إلى صفات وخصائص تميز البحث موضوع الدراسة، والتوصل إلى ظواهر يتم رصدها من واقع محتواها (سعد الله والمنصف، 2023). وفي هذه الدراسة أستخدمت التكرارات، والنسب المئوية، والمتوسطات، والانحرافات المعيارية، ومعادلة هولستي لحساب ثبات أداة التحليل.

4. النتائج

للإجابة عن سؤال الدراسة التالي: ما مدى توافق مناهج التعليم المحاسبي بمرحلة البكالوريوس في الجامعات السعودية مع المنهج التعليمي المحاسبي المقترح للهيئة السعودية للمراجعين والمحاسبين، أعدت ثلاث بطاقات لتحليل محتوى مناهج التعليم المحاسبي بمرحلة البكالوريوس في الجامعات السعودية استناداً للمنهج التعليمي المحاسبي للهيئة السعودية للمراجعين والمحاسبين، وذلك من ثلاث جوانب؛ الكفاءات العامة، المقررات المحاسبية، وموضوعات المقررات المحاسبية

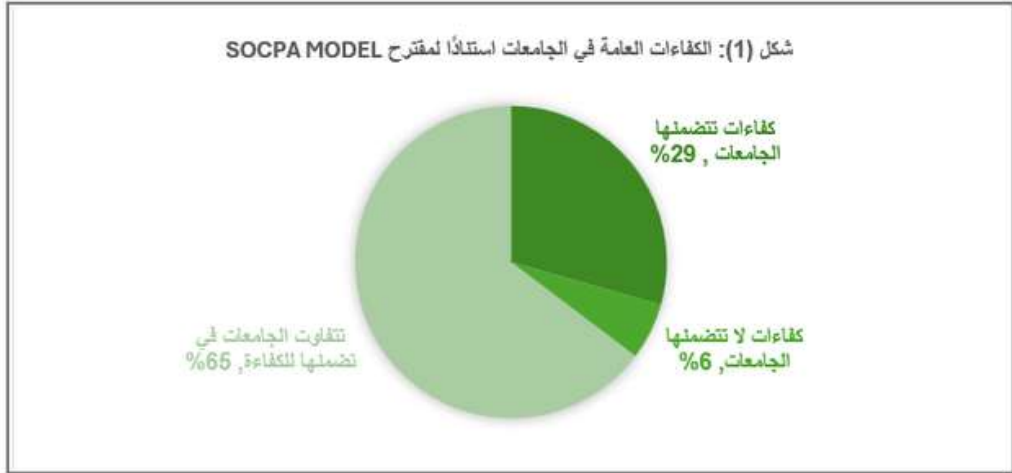
أولاً؛ بطاقة تحليل الكفاءات العامة

تضمن مقترح الهيئة SOCPA Model على مجموعة من الكفاءات المقترحة وما يتعلق بها من وصف وموضوعات، وهي تشمل على مهارات اللغة الإنجليزية (ENG)، مهارات الاتصال (COMM)، البحث والكتابة في مجالات الأعمال (RWB)، تقنية المعلومات وتطبيقات الحاسوب للأعمال (ITB)، الإحصاء والاحتمالات (STA)، بيئة الأعمال والسلوك التنظيمي (BIOB)، الاقتصاد الإسلامي والمعاملات المالية (IFT)، الاقتصاد (ECO)، أخلاقيات الأعمال (BETH)، الأنظمة التجارية (CL)، قيادة الأعمال (BE)، التمويل والإدارة المالية (FIN)، الأعمال الدولية (IB)، نظم المعلومات الإدارية (MIS)، الإدارة الاستراتيجية (SM)، التسويق الرقمي (DM)، دراسة الجدوى (FS).

ولتحليل الكفاءات العامة التي تتضمنها المقررات الدراسية في أقسام المحاسبة بالجامعات السعودية عينة الدراسة، تم تحليل الخطط الدراسية وتوصيفات المقررات التي تتضمنها، ومن ثم مقارنتها بتعريف الكفاءات العامة المقترحة في SOCPA Model.

يستعرض الجدول (2) نتائج تحليل الكفاءات العامة في الجامعات السعودية عينة الدراسة، وذلك بالاستناد إلى الكفاءات العامة المقترحة في SOCPA Model. وأظهرت نتائج التحليل أن متوسط الكفاءات العامة التي تتضمنها الخطط الدراسية لبرامج بكالوريوس المحاسبة تقارب 12 كفاءة عامة من أصل 17 كفاءة مقترحة. كما أظهرت نتائج التحليل بأن كفاءة التسويق الرقمي لم تتضمنها أي جامعة في خطتها الدراسية لبكالوريوس المحاسبة، كما تناولت جميع الجامعات عينة الدراسة الكفاءات العامة التالية في خططها الدراسية: الإحصاء والاحتمالات، بيئة الأعمال والسلوك التنظيمي، الاقتصاد، الأنظمة التجارية، التمويل والإدارة المالية. كما تفاوتت الجامعات السعودية عينة الدراسة في تناولها للكفاءات العامة المتبقية،

يوضح الشكل (1) النسب المئوية لتضمن الجامعات عينة الدراسة للكفاءات العامة المقترحة.

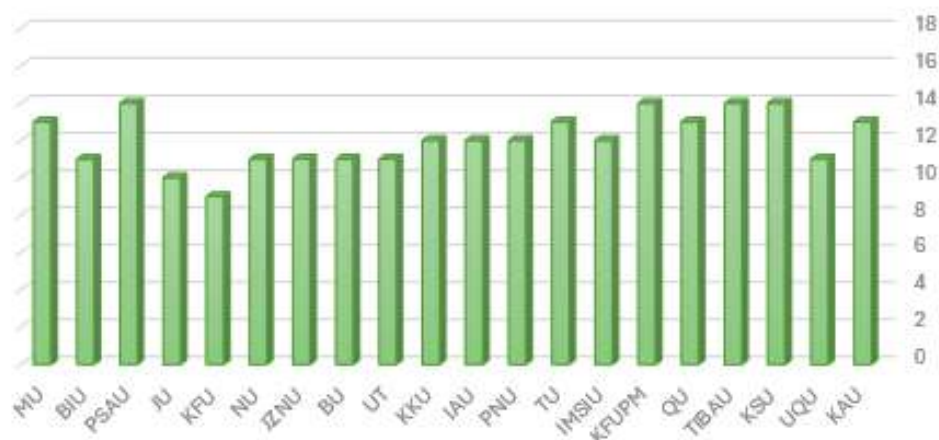


كما توضح بطاقة تحليل الكفاءات العامة في الجدول (2) الكفاءات العامة التي تتضمنها كل جامعة، ومجموع هذه الكفاءات عددياً وبصورة نسبة مئوية لكل جامعة على حدة. وقد أظهرت نتائج التحليل بأن جامعة الملك سعود، جامعة طيبة، جامعة الملك فهد للبترول والمعادن، وجامعة الأمير سطام بن عبد العزيز قد تضمنت خططها الدراسية لبرامج بكالوريوس المحاسبة 14 كفاءة عامة من أصل 17 كفاءة مقترحة، لتحقيق بذلك أعلى نسبة توافق بما يقارب 82%. تأتي في الرتبة الثانية لتحقيق الكفاءات المقترحة جامعة الملك عبد العزيز، جامعة القصيم، جامعة الطائف، وجامعة المجمعة، حيث حققت كلاً منهم 13 كفاءة مقترحة بنسبة تقارب 76%. وفي الرتبة الثالثة حققت كلاً من جامعة الإمام محمد بن سعود الإسلامية، جامعة الأميرة نورة، جامعة الملك خالد، وجامعة الإمام عبد الرحمن بن فيصل 12 كفاءة مقترحة بنسبة 71%. أما في الرتبة الرابعة فقد حققت جامعة أم القرى، جامعة تبوك، جامعة الباحة، جامعة جازان، جامعة نجران، وجامعة بيشة 11 كفاءة مقترحة بنسبة 65%. تأتي في المرتبتين الأخيرة جامعة الجوف، وجامعة الملك فيصل حيث حققت الجامعتان 10 كفاءات مقترحة، و9 كفاءات مقترحة بنسبة 59%، 53% على التوالي. يبين الشكل (2) أعداد الكفاءات العامة التي تضمنتها الخطط الدراسية المحاسبية في الجامعات عينة الدراسة.

جدول (٢): بطاقة تحليل الكفاءات العامة في الجامعات استناداً لكفاءات Model SOCPA المقترحة

MU	BIU	PSAU	JU	KFU	NU	JZNU	BU	UT	KKU	IAU	PNU	TU	IMSIU	KFUPM	QU	TIBAU	KSU	UQU	KAU	UJC
1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	ENG
1	1	1	0	0	1	1	1	1	1	1	1	0	0	1	1	1	1	0	1	COMM
1*	1	1	1	1	1	1	1	1	1*	0	0	1	1	1	1	1	1	0	1	RWB
1	1	1	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	ITB
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	STA
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	BIOB
1	0	1	0	1*	1	0	1	0	1	0	1*	0	1	1*	1	1	1*	1	1*	IFT
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	ECO
0	1	1	1	0	0	0	0	0	1*	1	1	1*	1	1	1	1	1*	0	1	BETH
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	CL
1*	1	0	0	1	0	1	0	0	1	1	1*	0	1	0	1	0	1	1	0	BE
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	FIN
0	0	1	0	0	0	0	0	0	0	1	0	1*	0	0	0	0	0	1	0	IB
0	0	1	0	1	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1	MIS
1	0	1	1	1	0	1	0	0	0	1	1*	0	0	1	0	1	0	0	1	SM
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DM
1*	0	0	0	0	0	0	0	1*	0	0	0	1*	1	0	1	0	1*	1	0	FS
13	11	14	10	9	11	11	11	11	12	12	12	13	12	14	13	14	14	11	13	NC
76%	65%	82%	59%	53%	65%	65%	65%	65%	71%	71%	71%	76%	71%	82%	76%	82%	82%	65%	76%	p

شكل (2): عدد الكفاءات العامة التي تتضمنها كل جامعة استناداً لمقترح Model SOCPA



ثانياً: بطاقة تحليل المقررات المحاسبية

لتحليل المقررات المحاسبية التي تضمنتها الخطط الدراسية لأقسام المحاسبة بالجامعات السعودية عينة الدراسة، حُللت الخطط الدراسية لبرامج بكالوريوس المحاسبة وتوصيفات المقررات التي تتضمنها، ومن ثم مقارنة بالوصف العام للمقررات المحاسبية المقترحة في SOCPA Model. ويوضح الشكل (٣) المقررات المحاسبية التي يتضمنها هيكل البرنامج المقترح من قبل الهيئة السعودية للمراجعين والمحاسبين.

قائمة المقررات				
المقررات الاختيارية	المقررات الأساسية			
	المستوى المتقدم	المستوى المتوسط	مستوى التأسيس	مستوى التمكين
- البيانات الضخمة والذكاء الاصطناعي. - المحاسبة الفضائية والأمن السهري. - المراجعة الرقمية. - ضريبة القيمة المضافة. - الضرائب الدولية. - حالات متقدمة في الزكاة والضرائب. - محاسبة المؤسسات المالية. - موضوعات محاسبية متخصصة.	- التقارير المالية المتقدمة. - الحوكمة ومحاسبة الاستدامة. - تحليل القوائم المالية. - المحاسبة الإدارية واتخاذ القرارات. - الأخلاقيات والممارسات المهنية في المحاسبة. - التدوير التعاوني.	- مقدمة في المحاسبة الرقمية. - التقارير المالية I. - التحليل الاستراتيجي للتكلفة. - التقارير المالية II. - مقدمة في القوائم المالية (عربي/إنجليزي). - المحاسبة الحكومية. - محاسبة الرزك. - محاسبة الضرائب. - أساسيات المراجعة الداخلية. - خدمات المراجعة والتأكد.	- أساسيات المحاسبة المالية. - أساسيات المحاسبة الإدارية.	- الثقافة المحلية والعادات والأفهم. - النزاهة الأكاديمية.

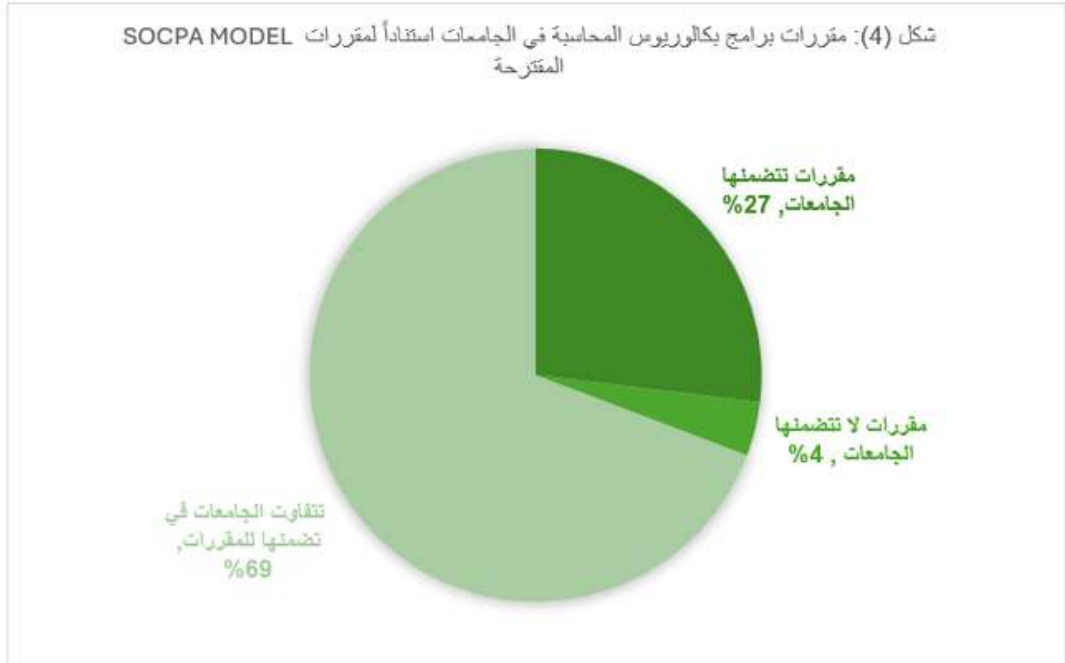
شكل (3): المقررات الأساسية والاختيارية المقترحة من قبل SOCPA

المصدر: الهيئة السعودية للمراجعين والمحاسبين

جدول (3): بطلقة تحليل مقررات برامج بكالوريوس المحاسبة في الجامعات استناداً لمقررات SOCPA Model المقترحة																
المقررات الجامعة	KAU	UQU	KSU	TIBAU	QU	KFUPM	IMSIU	TU	PNH	IAU	KKU	UT	BU	JZNU	NU	KFU
أساسيات المحاسبة المالية	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
أساسيات المحاسبة الإدارية	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
المستوى التأسيسي	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
مقدمة في المحاسبة الرقمية	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
التقرير المالية I	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
التحليل الاستراتيجي للتكلفة	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
التقرير المالية II	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
مقدمة في القوائم المالية (عربي/إنجليزي)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
المحاسبة المحاسبية	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
محاسبة الزكاة	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
محاسبة الضرائب	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
أساسيات المراجعة الداخلية	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
خدمات المراجعة والتفتيش	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
المستوى المتقدم	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
التقرير المالية المتقدمة	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
تحليل القوائم المالية	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
المحاسبة الإدارية وإدارة القوائم	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
الأخلاقيات والممارسات المهنية في المحاسبة	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
الهيكلية ومحاسبة الاستدامة	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
التدريب المهني	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
البيانات الضخمة وأدوات الاستقصاء	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
المحاسبة الضمنية والأمن السيبراني	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
المراجعة الرقمية	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ضريبة القيمة المضافة	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
الضرائب الدولية	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
حالات متقدمة في الزكاة والضرائب	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
محاسبة المؤسسات المالية	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
موضوعات محاسبية متخصصة	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
عدد مقررات الجامعة التي تتوافق مع SOCPA Model	16	18	15	17	17	18	13	14	17	20	11	15	15	17	18	15
نسبة توافق مقررات الجامعة مع مقررات SOCPA Model	62%	69%	58%	65%	65%	69%	50%	54%	65%	77%	42%	58%	58%	65%	69%	58%

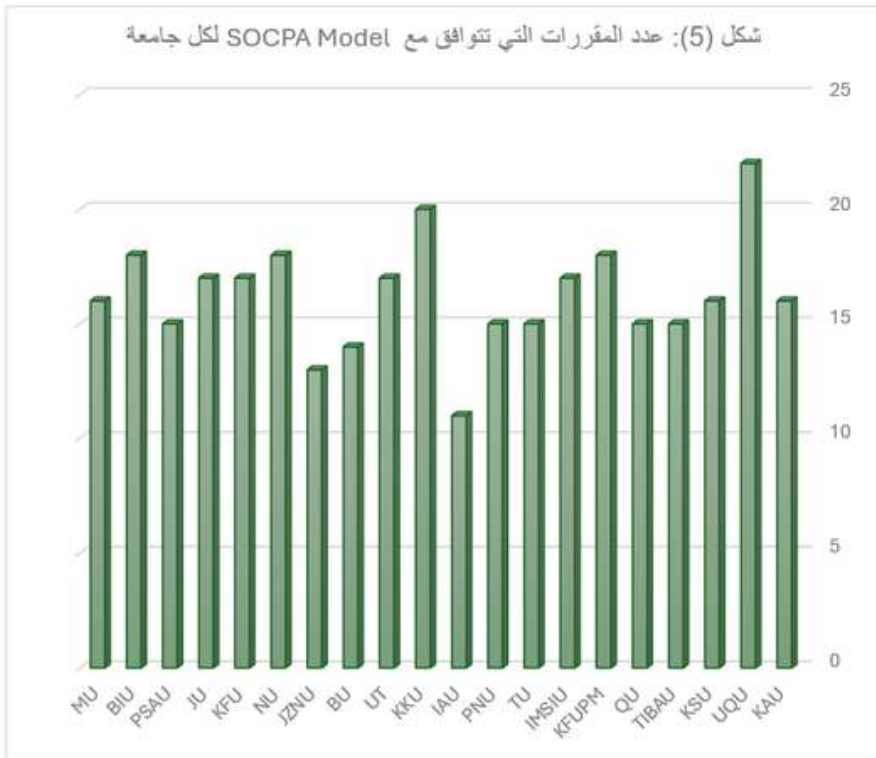
يستعرض الجدول (3) أعلاه نتائج تحليل المقررات المحاسبية في الجامعات السعودية عينة الدراسة، وذلك بالاستناد إلى المقررات المحاسبية المقترحة في SOCPA Model. وأظهرت نتائج التحليل أن متوسط المقررات المحاسبية التي تضمنتها الخطط الدراسية لبرامج بكالوريوس المحاسبة في الجامعات عينة الدراسة تقارب 16 مقرر محاسبي من أصل 26 مقرر محاسبي مقترح من قبل الهيئة. والجدير بالذكر، أن برامج بكالوريوس المحاسبة في الجامعات عينة الدراسة قد اتفقت في تضمينها لسبع مقررات محاسبية أساسية مقترحة في خطتها الدراسية، وهذه المقررات تشمل أساسيات المحاسبة المالية، مقدمة في المحاسبة الرقمية، التقارير المالية I، محاسبة الزكاة، محاسبة الضرائب، خدمات المراجعة والتأكد، المحاسبة الإدارية واتخاذ القرارات. بينما اتفقت الجامعات عينة الدراسة في عدم تضمينها لمقرر اختياري وهو ضريبة القيمة المضافة، كما تفاوتت الجامعات عينة الدراسة في تضمينها لأربعة عشر مقرر دراسي مقترح.

ويوضح الشكل (4) النسب المئوية لتضمن الجامعات عينة الدراسة للمقررات المحاسبية المقترحة.



كما توضح بطاقة تحليل المقررات المحاسبية في الجدول (3) المقررات المحاسبية التي تتضمنها كل جامعة، ومجموع هذه المقررات عددياً وبصورة نسبة مئوية لكل جامعة على حدة. وقد أظهرت نتائج التحليل بأن جامعة أم القرى جاءت في الرتبة الأولى من حيث تضمينها للمقررات المحاسبية المقترحة، فقد اشتملت على 22 مقرر محاسبي من أصل 26 مقرر مقترح، أي أنها تتوافق مع مقترح الهيئة من جانب المقررات المحاسبية المقترحة بنسبة 85%. يليها في الرتبة جامعة الملك خالد، حيث تضمنت 20 مقرر محاسبي ونسبة التوافق مع ما اقترحه الهيئة يقارب 77%. وقد احتلت جامعة الملك فهد للبترول والمعادن،

جامعة نجران، وجامعة بيشة الرتبة الثالثة في تضمينها للمقررات المحاسبية المقترحة والتي بلغ عددها 18 مقرر محاسبي من أصل 26 مقرر مقترح ونسبة توافق 69%. وقد تضمنت جامعة الإمام محمد بن سعود الإسلامية، جامعة تبوك، جامعة الملك فيصل، وجامعة الجوف 17 مقرر محاسبي ونسبة تقارب 65%، لتحل بذلك الرتبة الرابعة. يليها جامعة الملك عبد العزيز، جامعة الملك سعود، وجامعة المجمعة والتي تضمنت 16 مقرر محاسبي بنسبة توافق 62%. ويأتي في الرتبة الخامسة جامعة طيبة، جامعة القصيم، جامعة الأميرة نورة، جامعة الطائف، وجامعة الأمير سطام بن عبد العزيز، حيث تضمنت 15 مقرر محاسبي بنسبة توافق 58%. ويأتي في الرتب الثلاث الأخيرة جامعة الباحة التي تضمنت 14 مقرر محاسبي، يليها جامعة جازان متضمنة 13 مقرر محاسبي، يليها جامعة الإمام عبد الرحمن بن فيصل متضمنة 11 مقرر محاسبي، بنسب توافق مع مقترح الهيئة تقارب 54%، 50%، 42% على التوالي. ويوضح الشكل (5) أعداد المقررات المحاسبية التي تضمنتها الخطط الدراسية لبيكالوريوس المحاسبة في الجامعات عينة الدراسة.

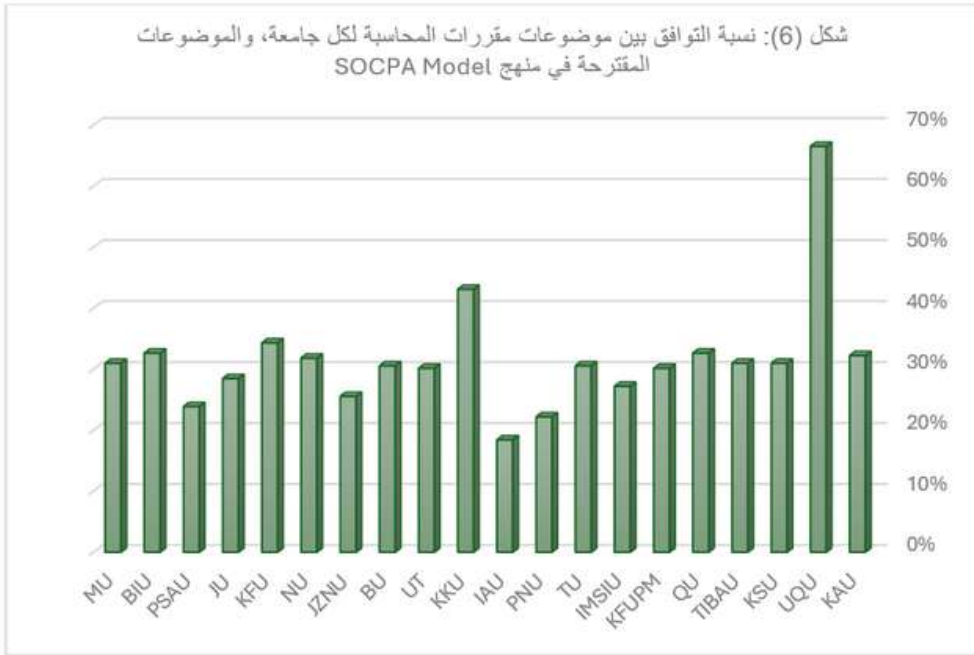


ثالثاً: بطاقة تحليل موضوعات المقررات المحاسبية

لتحليل موضوعات المقررات المحاسبية التي تضمنتها الخطط الدراسية لأقسام المحاسبة بالجامعات السعودية عينة الدراسة، تم تحليل توصيف المقررات المحاسبية فيها، ومن ثم مقارنتها بالوصف العام للمقررات المحاسبية المقترحة في SOCPA Model. ويستعرض الجدول (4) أدناه نتائج تحليل موضوعات المقررات المحاسبية في الجامعات السعودية عينة الدراسة، وذلك بالاستناد إلى موضوعات المقررات المحاسبية المقترحة لكل مقرر في SOCPA Model. وأظهرت نتائج التحليل أن متوسط موضوعات المقررات المحاسبية التي غطتها مقررات المحاسبة في الجامعات عينة الدراسة تقارب 76 موضوع محاسبي يتوافق مع ما اقترحتة الهيئة من موضوعات لكل مقرر، وذلك من أصل 239 موضوع مقترح من قبل الهيئة.

جدول (4): بطاقة تحليل موضوعات المقررات المحاسبية في الجامعات استناداً لمقرر SOCPA Model																							
ST. D	AVE.	MU	BIU	PSAU	JU	KFU	NU	JZNU	BU	UT	KKU	IAU	PNU	TU	IMSIU	KFUPM	QU	TIBAU	KSU	UQU	KAU	NT	المقررات الجامعة
0.62	7.80	8	8	8	6	8	8	8	8	8	8	7	7	8	8	8	9	8	7	8	8	9	أساسيات المحاسبة المالية
0.95	4.18	3	4	4	5	4	3	4			4	5	4		3	6	6	4	4	3	5	8	أساسيات المحاسبة الإدارية
1.75	3.70	3	4	3	3	5	2	5	3	1	7	4	2	2	4	3	6	1	5	7	4	7	مقدمة في المحاسبة الزمنية
1.07	6.75	9	8	6	7	8	7	7	7	6	7	7	5	6	5	5	8	7	7	6	7	12	التقارير المالية I
2.11	5.06	3	3	5		8	3	5	8	3	8			6	4	4	5	9	2	5	5	12	التحليل الاستراتيجي لتكلفة
1.49	3.11	5		1	2	5	3		4	2	6	3	1	5	2	2	2	4	2	4	3	10	التقارير المالية II
	6.00		6		6		6			6	6			6						6		6	مقدمة في القوائم المالية (مربي/إداري)
2.90	2.26	1	2	2	1	1	1	1	3	2	2		1	2	2	2	1	2	2	14	1	15	المحاسبة الحكومية
0.52	4.80	4	5	6	4	5	5	5	5	5	5	4	4	4	5	5	5	5	5	5	5	6	محاسبة الزكاة
1.94	3.75	3	3	7	3	1	4	3	4	3	3	3	1	3	3	3	7	3	5	9	4	9	محاسبة الضرائب
1.36	5.38	5		4	5	5	4			6	5		6	5	5	6	7	7	7	7	2	9	أساسيات المراجعة الداخلية
2.08	8.30	8	8	5	7	10	7	7	10	10	7	7	4	7	9	9	8	11	9	13	10	13	خدمات المراجعة والتأكد
1.47	3.21	4	2	3	2	2	3		5	4	2	3	4	3	3	3	1	3	3	8	3	8	التقارير المالية المتقدمة
0.99	6.71	7	7		6	7	7	7	7	6	7		7	7	7	4	6	6	7	9		9	تحليل القوائم المالية
1.73	2.65	1	1	2	1	2	2	4	1	1	4	1	4	1	2	3	6	4	2	6	5	11	المحاسبة الإدارية واتخاذ القرارات
1.41	4.00										3									5		11	الأخلاقيات والممارسات المهنية في المحاسبة
0.71	1.50		2								1											9	الحكومة ومحاسبة الاستدامة
	7.00																			7		7	البيانات الضخمة والذكاء الاصطناعي
1.89	7.25		6								10									7	6	11	المحاسبة القضائية والأمن السيبراني
	6.00															6				6		10	المراجعة الزمنية
																						10	ضريبة القيمة المضافة
	2.00															2						11	الضرائب الدولية
	14.00																			14		15	حالات متقدمة في الزكاة والضرائب
2.33	8.21	10	8		10	10	10	5	8	8	8			10	2				7	10	9	10	محاسبة المؤسسات المالية
	1.00		1	1		1	1			1			1		1	1	1					1	موضوعات محاسبية متخصصة
22.99	75.65	74	78	57	68	82	76	61	73	72	103	44	53	73	65	72	78	74	74	159	77	239	مجموع الموضوعات لكل جامعة
		31%	33%	24%	28%	34%	32%	26%	31%	30%	43%	18%	22%	31%	27%	30%	33%	31%	31%	67%	32%		نسبة توافق الموضوعات مع مقرر الهيئة

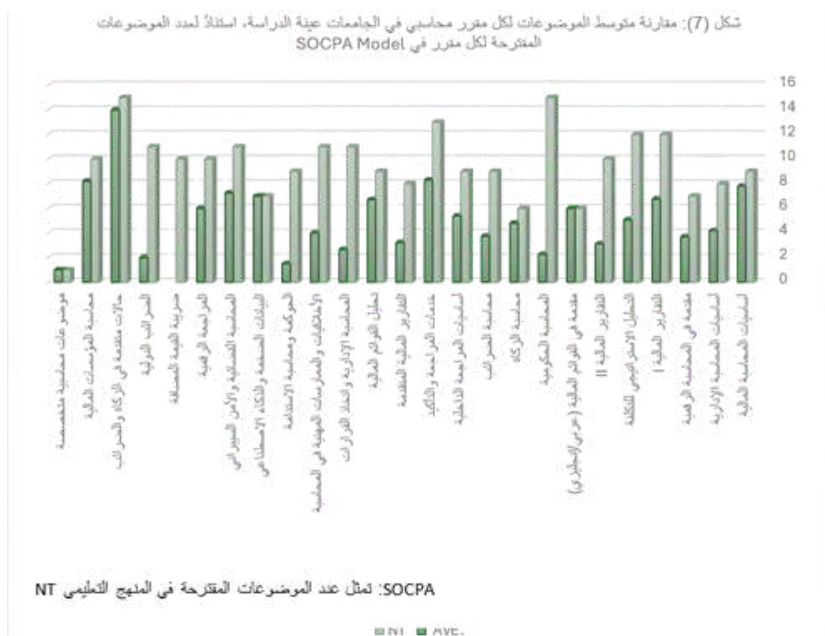
كما أظهرت نتائج التحليل في الجدول (4) أن جامعة أم القرى حققت أعلى نسبة توافق مع ما اقترحتة الهيئة من موضوعات لكل مقرر، وذلك بنسبة 67% أي أنها غطت 159 موضوع مقترح، يليها جامعة الملك خالد في الرتبة الثانية والتي حققت نسبة توافق مع موضوعات الهيئة المقترحة لكل مقرر تقارب 43%، حيث غطت 103 من الموضوعات المقترحة في مقرراتها. يليها جامعة الملك فيصل في الرتبة الثالثة والتي غطت 82 موضوعاً مقترحاً بنسبة توافق تقارب 34%. وجاءت جامعة بيشة، وجامعة القصيم في الرتبة الخامسة بما يحقق نسبة توافق تقارب 33% ويغطي 78 موضوعاً مقترحاً. يليها في المرتبة السادسة جامعة الملك عبد العزيز، حيث غطت ما يقارب 32% من الموضوعات المقترحة من قبل الهيئة، وذلك بواقع 77 موضوع يتوافق مع ما اقترحتة الهيئة في كل مقرر. وفي الرتبة السابعة حلت جامعة نجران، والتي غطت 76 موضوع مقترح بنسبة تقارب 32%. يليها في الرتبة الثامنة جامعة المجمعة، جامعة الملك سعود، وجامعة طيبة، حيث تم تغطية 74 موضوع مقترح بنسبة تقارب 31%. واحتلت جامعة الطائف، جامعة الباحة الرتبة التاسعة، حيث غطت كل منهم 73 من الموضوعات المقترحة، أي بما يقارب 31%. يليهما في الرتبة العاشرة جامعة الملك فهد للبترول والمعادن، وجامعة تبوك، حيث تمت تغطية 72 من الموضوعات المقترحة، وبنسبة توافق تقارب 30%. وبلغت نسبة توافق جامعة الجوف مع موضوعات الهيئة المقترحة ما يقارب 28%، حيث غطت 68 من الموضوعات المقترحة، لتحل بذلك الرتبة الحادية عشر. يليها في المرتبة الثانية عشر جامعة الإمام محمد بن سعود الإسلامية، حيث تتوافق مع ما اقترحتة الهيئة من موضوعات بنسبة تقارب 27%، لتغطي بذلك 65 موضوع مقترح. كما احتلت جامعة جازان الرتبة الثالثة عشر من حيث توافقتها مع الموضوعات المقترحة بنسبة تقارب 25%، لتغطي 61 موضوع مقترح. يليها جامعة الأمير سطام بن عبد العزيز، والتي احتلت الرتبة الرابعة عشر بنسبة توافق تقارب 24%، حيث غطت 57 من الموضوعات المقترحة. يليها جامعة الأميرة نورة التي غطت 53 من الموضوعات المقترحة بنسبة توافق تقارب 22%، لتحل بذلك الرتبة الخامسة عشر. وفي المرتبة السادسة عشر حلت جامعة الأمير عبد الرحمن بن فيصل بنسبة توافق تقارب 18%، حيث غطت 44 موضوع من الموضوعات المقترحة لكل مقرر محاسبي من قبل الهيئة. ويوضح الشكل (6) نسب التوافق بين موضوعات مقررات المحاسبة في الجامعات السعودية عينة الدراسة، والموضوعات المقترحة في منهج SOCPA Model.



ويوضح الشكل (7) مقارنة لمتوسط موضوعات المقررات المحاسبية في الجامعات عينة الدراسة، بالاستناد للموضوعات المقترحة لكل مقرر محاسبي على حدة. وأظهرت نتائج التحليل في الجدول (4)، بأن مقرر أساسيات المحاسبة المالية تضمن 9 موضوعات مقترحة، في حين توافقت الجامعات عينة الدراسة على تغطيتها لـ 7.8 في المتوسط من الموضوعات المقترحة في المقرر الجامعي. كما بلغ متوسط تغطية الجامعات عينة الدراسة للموضوعات المقترحة في مقرر أساسيات المحاسبة الإدارية ما يقارب 4 موضوعات، بينما تضمن المقرر المقترح من قبل الهيئة 8 موضوعات. أما بالنسبة للمقرر مقدمة في المحاسبة الرقمية، فقد تم تغطية 3.7 في المتوسط من الموضوعات المقترحة، مقارنة بعدد الموضوعات التي اقترحتها الهيئة، والبالغ عددها 7 موضوعات. وفي مقرر التقارير المالية 1 اقترحت الهيئة 12 موضوعاً لتناقشها، في المقابل تضمنت الجامعات عينة الدراسة ما يقارب 6.8 من الموضوعات في المتوسط. كما اقترحت الهيئة 12 موضوعاً يتضمنها مقرر التحليل الاستراتيجي للتكلفة، وقارب متوسط ما تضمنته الجامعات عينة الدراسة في مقرراتها التي تتفق مع الوصف العام للمقرر المقترح 5 موضوعات. أما في مقرر التقارير المالية 2 فقد تضمن 10 موضوعات مقترحة، غطت الجامعات عينة الدراسة في المتوسط 3 موضوعات منها. على الجانب الآخر،

فقد تضمنت الجامعات عينة الدراسة على جميع الموضوعات المقترحة لمقرر مقدمة في القوائم المالية (عربي/إنجليزي) والبالغ عددها 6 موضوعات. وبلغ عدد الموضوعات التي تناولها مقرر المحاسبة الحكومية 15 موضوعاً مقترحاً، في المقابل تناولت الجامعات عينة الدراسة ما يقارب 2.3 في المتوسط من الموضوعات. كما بلغ متوسط الموضوعات التي تناولتها مقرر محاسبة الزكاة في الجامعات عينة الدراسة ما يقارب 4.8 من الموضوعات المقترحة من قبل الهيئة. أما بالنسبة لمقرر محاسبة الضرائب فقد بلغت الموضوعات التي اقترحتها الهيئة 9 موضوعات، وتضمنت الجامعات عينة الدراسة 3.8 في المتوسط منها. كما اقترحت الهيئة 9 موضوعات يتضمنها مقرر أساسيات المراجعة الداخلية، وبلغ متوسط الموضوعات التي تم تغطيتها في الجامعات عينة الدراسة ما يقارب 5.4. وقد تضمن مقرر خدمات المراجعة والتأكيد 13 مقررأً مقترحاً، غطت الجامعات منها في المتوسط 8.3 موضوعات. وقد اشتمل مقرر التقارير المالية المتقدمة على 8 موضوعات مقترحة، غطت الجامعات عينة الدراسة في المتوسط 3.2 موضوعاً منها. وبلغ متوسط الموضوعات التي تم التطرق إليها في الجامعات عينة الدراسة ما يقارب 6.7، وذلك من أصل 9 موضوعات مقترحة في مقرر تحليل القوائم المالية. أما بالنسبة لمقرر المحاسبة الإدارية واتخاذ القرارات فقد تضمن 11 موضوعاً مقترحاً، ناقشت الجامعات عينة الدراسة 2.7 موضوعاً منها في المتوسط. وقد بلغت الموضوعات المقترحة في مقرر الأخلاقيات والممارسات المهنية في المحاسبة 11 موضوع مقترح، تناولت الجامعات عينة الدراسة في المتوسط 4 من الموضوعات. كما تضمن مقترح الهيئة 9 موضوعات ليتم مناقشتها في مقرر الحوكمة ومحاسبة الاستدامة، غطت منها الجامعات في المتوسط 1.5 موضوعاً. كما غطت جامعة أم القرى الموضوعات المقترحة في مقرر البيانات الضخمة والذكاء الاصطناعي. وبلغ عدد الموضوعات المقترحة في مقرر المحاسبة القضائية والأمن السيبراني 11 موضوعاً، تطرقت بعض الجامعات عينة الدراسة لمناقشة 7 من الموضوعات المقترحة في المتوسط. وفي بعض الجامعات بلغ متوسط تغطية مقرر المراجعة الرقمية 6 موضوعات من أصل 10 موضوعات مقترحة من قبل الهيئة. وتناولت جامعة الملك فهد للبترول والمعادن موضوعين من أصل 11 موضوع مقترح لمقرر الضرائب الدولية.

في حين تناولت جامعة أم القرى 14 موضوعاً مقترحاً من أصل 15 موضوع لمقرر حالات متقدمة في الزكاة والضرائب. وتناول مقرر محاسبة المؤسسات المالية 10 موضوعات مقترحة، ناقشت بعض الجامعات عينة الدراسة 8.2 في المتوسط من الموضوعات. واقترحت الهيئة مناقشة بعضاً من الموضوعات المحاسبية المعاصرة في مقررها المقترح موضوعات محاسبية متخصصة، والذي تفاوتت الجامعات.



5. الاستنتاجات

فيما يتعلق بالكفاءات العامة:

عند تحليل الكفاءات العامة في الجامعات عينة الدراسة وفقاً لما اقترحت الهيئة، فإنه قد تم تحليل الخطط الدراسية بالنظر لتوصيف المقررات العامة فيها ومدى اتفاق هذه التوصيفات مع الوصف العام للكفاءات في منهج SOCPA. فعلى سبيل المثال، عند تحليل كفاءة التسويق الرقمي المقترحة من قبل الهيئة، اتضح أن الجامعات عينة الدراسة جميعها قد تضمنت خطتها الدراسية لبكالوريوس المحاسبة مقرر مبادئ أو أساسيات التسويق، وبعضاً من هذه الجامعات قد تطرقت بشكل غير مباشر في هذه المقررات لمناقشة إحدى مواضيع التسويق الإلكتروني، التجارة الإلكترونية، التسويق عبر وسائل التواصل الاجتماعي، ولكن لا يوجد مقرر بحد ذاته في الخطط الدراسية عينة الدراسة قد ناقش الموضوعات المتعلقة بالتسويق الرقمي فحسب وبما يتوافق مع الوصف العام للكفاءة. في حالة أخرى

يُدرس مقرر التسويق الرقمي كمقرر أساسي في بعض الجامعات للمراحل المتقدمة في برامج بكالوريوس التسويق.

- مجموعة من الجامعات عينة الدراسة التي أظهرت انخفاض في الكفاءات العامة مقارنةً بمثيلاتها، قد يعود السبب في ذلك أنها لم تفصح في الخطة الدراسية موضع التحليل عن مجموعة المقررات الاختيارية والحرّة المتاحة للطلبة. كما أن بعض الجامعات لم تحدد المقررات الاختيارية والحرّة وتركت للطلبة حرية الاختيار، ونتيجة لذلك قد تظهر بطاقة التحليل فيها أن الكفاءات منخفضة، مقارنةً بالبعض الآخر من الجامعات التي أفصحت عن قائمة محددة في الخطة الدراسية متضمنة عدد من المقررات المتاحة لتدريسها للطلبة وتركت لهم حرية اختيار المقررات الاختيارية والحرّة من تلك القائمة.
- بعض الجامعات حققت نسب عالية في تضمينها للكفاءات العامة، لكن في الحقيقة بعضاً من هذه الكفاءات في واقعها هي مقررات اختيارية ضمن مجموعة واسعة من الخيارات المتاحة للمقررات الاختيارية والحرّة التي يختار الطالب من ضمنها. وعليه تُظهر بطاقة التحليل أن الجامعة تضمنت الكفاءة، ولكن تم تناولها في مقرر اختياري لا يضمن اكتساب خريجي بكالوريوس المحاسبة في الجامعة المعنية لهذه الكفاءة.
- عند تحليل كفاءة البحث والكتابة في مجال الأعمال، وكفاءة فقه المعاملات المالية، اتضح وجود بعضاً من الجامعات عينة الدراسة قد تطرقت لهذه الكفاءات في مجال تخصص المحاسبة، ليتم مناقشة موضوعات الكفاءة العامة المقترحة في إطار المحاسبة، ويتفاوت مسمى المقرر في هذا الإطار في الجامعات وترتكز الموضوعات فيها حول البحث والكتابة في مجال المحاسبة، والمحاسبة عن فقه المعاملات.

فيما يتعلق بالمقررات المحاسبية:

-تختلف مسميات المقررات المحاسبية من جامعة لأخرى، وتختلف مع مسميات المقررات المحاسبية المقترحة في SOCPA Model. وتم التحليل وفقاً للوصف العام للمقرر بغض النظر عن مسمياته. فعلى سبيل المثال المحاسبة المتوسطة هو مسمى المقرر الشائع في الجامعات عينة الدراسة، ومقابله التقارير المالية مقترح الهيئة.

-مقرر الزكاة ومقرر الضرائب في مقترح الهيئة مقرران منفصلان، بينما في بعض من الجامعات عينة الدراسة هو مقرر واحد مقسوم لجزئين، جزء يتطرق للموضوعات المتعلقة بالزكاة، والآخر مرتبط بالموضوعات المتعلقة بالضرائب.

بعض الجامعات توسعت في تناولها للمقررات المحاسبية في خطتها الدراسية مقابل تقليصها لمقررات الكفاءات العامة، وبعض الجامعات كانت معاكسة لذلك، بتوسعها في الكفاءات العامة مقابل تقليص ما-تتضمنه من مقررات محاسبية. ويوضح الشكل (8) نسب الكفاءات العامة ونسب المقررات المحاسبية للجامعات عينة الدراسة استناداً لمقترح الهيئة SOCPA Model. بناءً على ما سبق، يتضح من الشكل 8 وفقاً لارتباط بيرسون، بوجود ارتباط سلبي ضعيف (-0,2) دال على علاقة عكسية.



فيما يتعلق بالموضوعات التي تتضمنها المقررات المحاسبية:

- تم تحليل موضوعات كل مقرر محاسبي في الخطة الدراسية على حدة، مقارنة بالموضوعات المقترحة في مقرر الهيئة المقترح نظيره، واللدان يتطابقان في الوصف العام للمقرر. وذلك للمقارنة بين المقرر المحاسبي ونظيره المقترح، لتحديد مدى التوافق بينهما. وفقاً لذلك قد تكون بعض الموضوعات المقترحة في مقرر الهيئة لم يتم مناقشتها في المقرر الجامعي المتطابق معه بالوصف العام، ولكن تم مناقشتها في مقررات أخرى.
- عند تحليل مقرر المحاسبة الحكومية أو مقرر المحاسبة في المنظمات غير الربحية على اختلاف مسمى المقرر المعني في الجامعات عينة الدراسة، فإن نتائج التحليل أظهرت بوناً شاسعاً بين ما تضمنته أغلب مقررات الجامعات عينة الدراسة في هذا المقرر وبين ما اقترحتة الهيئة من موضوعات. حيث اعتنت الهيئة في مقرر المحاسبة الحكومية بمناقشة موضوعات معايير المحاسبة في القطاع العام وما يتعلق بها. في حيث تطرقت معظم الجامعات عينة الدراسة في مقرر المحاسبة الحكومية لموضوعات مثل موازنة الدولة وما يتعلق بها، والعهد والسلف والأمانات.
- لم تتضمن برامج البكالوريوس في الجامعات عينة الدراسة على مقرر ضريبة القيمة المضافة، ولكن تمت مناقشة بعضاً من مواضيعه المقترحة في مقررات مختلفة.
- بعضاً من جامعات عينة الدراسة في مقرر نظم المعلومات المحاسبية لم تتطرق للتطبيق العملي، وكان تركيز موضوعات المقرر فيها ينصب على مناقشة موضوعات نظم المحاسبة التقليدية، في حين كان التركيز لمقرر الهيئة المقترح ينصب على النظم المحاسبية المحوسبة.
- وجود ترابط بين موضوعات المحاسبة الإدارية ومحاسبة التكاليف، أدى إلى تفاوت مناقشة هذه الموضوعات في المقررين للجامعات عينة الدراسة بالاستناد إلى منهج SOCPA المقترح. وقد تم تحليل مدى توافق كلا المقررين على حدة، وبيان نسبة توافق كلاً منهما مع مقرر الهيئة المقترح على حدة. وذلك بغض النظر عن مناقشة الموضوع ذاته في أيّاً من المقررين.

- هناك بعض المقررات التي تضمنتها برامج البكالوريوس في عدد من الجامعات والتي لم يتم التطرق لها في مقترح الهيئة، منها مقرر محاسبة البترول والغاز في جامعة الملك فهد للبترول والمعادن، ومقرر المحاسبة السياحية في جامعة الملك خالد، ومقرر المحاسبة الزراعية في جامعة الجوف، وغيرها من المقررات والموضوعات المختلفة التي تم تناولها في مناهج التعليم المحاسبي في الجامعات عينة الدراسة مثل محاسبة الفنادق، محاسبة المستشفيات، محاسبة الجامعات، محاسبة الجمعيات الخيرية.

6. التوصيات

- من المتوقع وجود تفاوت بين مناهج التعليم المحاسبي بالجامعات السعودية بشكل عام، ولكن وحيث أن المنهج التعليمي المقترح من الهيئة السعودية للمراجعين والمحاسبين يهدف لتحسين جودة المخرجات التعليمية المواكبة لمتطلبات سوق العمل فإنه من الممكن إحداث التغييرات في الخطط الدراسية لبرامج البكالوريوس في المحاسبة لرفع نسبة توافقها مع المنهج التعليمي SOCPA Model. وبناءً على النتائج التي توصلت إليها هذه الدراسة، نخلص إلى التوصيات التالية:
- إدراج التطبيق العملي في مقررات المحاسبة المختلفة، وتفعيل معامل الحاسب الآلي لطلبة المحاسبة في الجامعات السعودية. بما يساهم في تكوين معارف أساسية لخريجي المحاسبة تلم بكل الجانبيين النظري والعملي، وتلبي متطلبات سوق العمل.
- تضمنت بعض برامج البكالوريوس في الجامعات عينة الدراسة على مشروع التخرج، كما تضمنت بعض الجامعات على مقرر مناهج/ طرق البحث في المحاسبة. بينما تضمن مقترح SOCPA كفاءة الكتابة في مجال الأعمال. وتوصي الدراسة الحالية بأن يتم دمج جميع ما سبق، بأن يكون المقرر مناهج البحث في المحاسبة ويطابق الوصف العام لمقرر الكتابة في مجال الأعمال ويناقش موضوعاته، ولكن على سبيل التخصيص يتم تكليف الطالب بإعداد البحث في مجال المحاسبة.

- التحديث المستمر لمناهج التعليم المحاسبي، وأن تتسم المقررات المحاسبية بمواكبتها للمستجدات في معايير المحاسبة والمراجعة، وتغطيتها لموضوعات تتماشى مع رؤية المملكة ٢٠٣٠، وتعاصر متطلبات سوق العمل السعودي.
- التعاون فيما بين الهيئات والوزارات ذات العلاقة بمجال المحاسبة، والجامعات السعودية، في سبيل تأهيل وتدريب وتطوير منسوبي الجامعات وطلابها، وذلك من خلال اللقاءات العلمية، والبرامج التدريبية، والدورات التدريبية، والتدريبات العملية.
- الدمج بين المقررات المحاسبية الأكاديمية في الجامعات السعودية والمقررات المؤهلة للحصول على شهادة زمالة الهيئة السعودية للمراجعين والمحاسبين SOCPA.

وفي ضوء ما توصلت إليه الدراسة من نتائج، تبينت أهمية الدراسات المتعلقة بالتعليم المحاسبي والعناية به من قبل الباحثين، وتظهر الحاجة للتوسع في هذا الموضوع بما يشمل استطلاع آراء الطلبة، وأعضاء هيئة التدريس، وأرباب العمل من جوانب متعددة؛ على سبيل المثال:

- تأهيل خريجي المحاسبة في الجامعات السعودية لاجتياز الاختبارات المهنية
- المهارات التقنية لخريجي المحاسبة في الجامعات السعودية
- الفجوة بين التعليم المحاسبي في الجامعات السعودية والممارسات التطبيقية في سوق العمل
- الاستدامة في مناهج التعليم المحاسبي في الجامعات السعودية

7. المراجع

أولاً: المراجع باللغة العربية:

أبو بكر، نجوى (2021). مدى توافق التعليم المحاسبي في الجامعات السعودية مع متطلبات سوق العمل في ضوء رؤية المملكة العربية السعودية 2030. رسالة دكتوراه، كلية إدارة الأعمال، جامعة الحدود الشمالية، المملكة العربية السعودية.

أبو عمار، مصطفى، والحركان، أحمد (2019). تقييم مدى كفاية المحتوى الحالي للمحاسبة القضائية في برامج المحاسبة في الجامعات السعودية. المجلة العالمية للاقتصاد والأعمال، 6 (3)، 447-427.

الjasر، محمد، والعسيري، عبد الله (2019). دور التعليم المحاسبي في تعزيز أخلاقيات مهنة المحاسبة: دراسة تطبيقية على الجامعات السعودية. رسالة ماجستير، كلية الاقتصاد والإدارة، جامعة الملك عبد العزيز، جدة، المملكة العربية السعودية.

جامعة الإمام محمد بن سعود الإسلامية. تم الاطلاع في (20/4/2023)

<https://imamu.edu.sa/Pages/default.aspx>

جامعة القصيم. تم الاطلاع في (20/4/2023) [/https://qu.edu.sa](https://qu.edu.sa)

الجدلي، أبرار، وعبد الرحمن، نجلء (2019). مدى ملائمة التعليم المحاسبي في الجامعات السعودية لمتطلبات سوق العمل. رسالة ماجستير، كلية الاقتصاد والإدارة، جامعة الملك عبد العزيز، جدة، المملكة العربية السعودية.

الجهني، ريا، وشحاتة، محمد (2022). مدى توافق التعليم المحاسبي بالجامعات السعودية مع المعيار الثاني من المعايير الدولية للتعليم IES2. مجلة العلوم الاقتصادية والإدارية والقانونية، 6(27)، 182-211.

الحجيلي، أحمد، والرحيلي، عوض (2017). برامج التعليم المحاسبي في المملكة العربية السعودية ومدى توافقها مع متطلبات المعايير الدولية للتعليم المحاسبي. رسالة ماجستير، كلية الاقتصاد والإدارة، جامعة الملك عبد العزيز، جدة، المملكة العربية السعودية.

حسان، محمود (2018). مدى توافق التعليم المحاسبي مع متطلبات سوق العمل: دراسة ميدانية على المؤسسات والجمعيات الأهلية المحلية في قطاع غزة. رسالة ماجستير، كلية التجارة، الجامعة الإسلامية، غزة، فلسطين.

الرشيدي، غازي (2021). أسلوب تحليل المحتوى النوعي: رؤية تحليلية. مجلة كلية التربية في العلوم التربوية، 45(1)، 79-114.

سعد الله، أيمن، والمنصف، اسراء (2023). نموذج مقترح لتحليل المحتوى لرسائل الماجستير والدكتوراه تخصص مناهج وطرق تدريس التربية الفنية كلية التربية النوعية جامعة عين شمس. المجلة المصرية للدراسات المتخصصة، 11 (37)، 84 - 104.

الشويمان، نزار (2021). دور المعايير الدولية للتعليم المحاسبي IAES في تحسين جودة المحاسبة كمهنة (دراسة ميدانية). التجارة والتمويل، 41(3)، 1-48.

صالح، عبد الله (2017). أهمية تطوير التعليم المحاسبي في ضوء مستجدات معايير الإبلاغ المالي الدولية ودورها في تحرير الخدمات المحاسبية في الدول العربية. رسالة دكتوراه، كلية العلوم الاقتصادية والتجارية وعلوم التسيير، جامعة حسيبة بن بو علي بالشلف، الجزائر، الجزائر.

طعمية، رشدي (2004). "تحليل المحتوى في العلوم الإنسانية." دار الفكر العربي، القاهرة.
عرب، محمد (2014). إطار مقترح لتطوير برامج التعليم المحاسبي الجامعي في المملكة العربية السعودية في ضوء الاتجاهات الحديثة لمتطلبات المعايير الدولية للتعليم المحاسبي. مجلة البحوث المالية والتجارية، 15(1)، 166 - 221.

عطية، خالد، وزهران، علاء الدين (2008). نموذج مقترح لتقييم جودة البرامج المحاسبية من منظور الاعتماد الأكاديمي. المجلة العربية لضمان الجودة في التعليم الجامعي، 1(2)، 1-62.

العنسي، علي (2022). مدى إيفاء التعليم المحاسبي بمتطلبات سوق العمل دراسة ميدانية في السوق السعودية. مجلة جامعة الانبار للعلوم الاقتصادية والإدارية، 14(3)، 524-540.

الفكي، الفاتح الأمين (2014). تصور مقترح لتطبيق معايير التعلم المحاسبي ودورها في ضبط جودة مناهج المحاسبة في الجامعات السعودية. المجلة العربية لضمان جودة التعليم العالي، 7(16)، 109-138.

محمدي، وجدى، القثامي، غويزي، وعويس، حسن (2017). مدى وفاء البرامج والمقررات المحاسبية بمتطلبات المجتمع السعودي. مجلة البحوث المالية والتجارية، 18(2)، 1-28.

مطاوع، أحمد (2019). تقييم فاعلية برامج التعليم المحاسبي في تشكيل السمات الشخصية المؤهلة لممارسة الشك المهني لمراقبي الحسابات بالمملكة العربية السعودية. مجلة الإسكندرية للبحوث المحاسبية، 3(3)، 121-182.

مندورة، هبة، والسديري، فهدة (2022). توظيف الجدارات المهنية للمراجع الخارجي لقياس ملاءمة مخرجات التعلم لمتطلبات سوق العمل: دراسة حالة. المجلة الأكاديمية للبحوث التجارية المعاصرة، 2(3)، 42-65.

الهيئة السعودية للمراجعين والمحاسبين (2023). <https://www.socpa.org.sa/Socpa/Home.as>.

هيئة تقويم التعليم والتدريب (2023). <https://etec.gov.sa/ar/ncaaa/accreditationsresults>.

وزارة التعليم (2023). <https://moe.gov.sa/ar/pages/default.aspx>.

ثانياً: المراجع باللغة الأجنبية:

AlDhubaibi, A. (2022). Conformance of accounting education in Saudi Arabia universities to the international accounting education standards. *Journal of Asian Finance, Economics and Business*, 9(6), 313-324.

AlHussain, M., (2019). Accounting Education and Labor Market Need. *Asian Journal of Finance & Accounting*, 11(2), 209-235.

AlMallaki, M., Tan, L. and Laswad, F. (2020). Generic skills in accounting education in Saudi Arabia: students' perceptions. *Asian Review of Accounting*, 28(3), 395-421.

AlShahrani, S. (2021). Education and Training Associated with the Implementation of IFRS in Saudi Arabia. Doctoral Thesis, University of Dundee School of Business, UK.

Bailey, C. and Ragland, L. (2022). Developing students' skill-based competencies: A strategic learning approach. *The Accounting Educators' Journal*, <https://www.aejournal.com/ojs/index.php/aej/article/view/795>

Birt, J., Safari, M. and de Castro, V. (2023) Critical analysis of integration of ICT and data analytics into the accounting curriculum: A multidimensional perspective. *Accounting & Finance*, 63(4), 4037–4063, <https://doi.org/10.1111/acfi.13084>

Carvalho, C., & Almeida, A. (2022). The adequacy of accounting education in the development of transversal skills needed to meet market demands. *Sustainability*, 14(10), <https://doi.org/10.3390/su14105755>

Ebaid, I. (2021). Employers' perceptions of generic employability skills of accounting graduates: evidence from Saudi Arabia. *Journal of Management and Business Education*, 4(2), 136-149.

Elo, T., Pätäri, S., Sjögrén, H. and Mättö, M. (2023). Transformation of skills in the accounting field: the expectation–performance gap perceived by accounting students, *Accounting Education*, DOI: 10.1080/09639284.2023.2191289

England, T., Blix, L., Carrington, L. and Harris, K. (2022). A framework for teaching soft skills and ethics in an overcrowded accounting curriculum. *The Accounting Educators' Journal*, <https://www.aejournal.com/ojs/index.php/aej/article/view/878>

Georgiou, A. (2018). The accounting education of graduates: Is it meeting the needs of employers? evidence from Cyprus. *Iranian Journal of Accounting, Auditing and Finance*, 2(2), doi: 10.22067/ijaaaf.v2i2.74113

Srdar, N. (2017). The gap between learning and teaching in accounting education: the Saudi Arabian experience. Doctoral Thesis, University of Portsmouth, UK.

Tsiligiris, V. and Bowyer, D. (2021). Exploring the impact of 4IR on skills and personal qualities for future accountants: a proposed conceptual framework for university accounting education, *Accounting Education*, 30(6), 621-649, DOI: 10.1080/09639284.2021.1938616

Twyford, T. and Dean, B. (2023). Inviting students to talk the talk: developing employability skills in accounting education through industry-led experiences, Accounting Education, DOI: 10.1080/09639284.2023.2191288

Zekany, E. (2020). Curricular Study of AACSB Accounting Programs: What Core Accounting Courses are Required to Earn an Accounting Generalist Degree. The Accounting Educators' Journal.

<https://www.aejournal.com/ojs/index.php/aej/article/view/567>

Zureigat, Q. (2015). Accounting graduates' skills and employers' needs: the Saudi case. Jordan Journal of Business Administration, 11(1), 227-238.

Zureigat, Q. (2018). Do Accounting Programs at Saudi Universities Adopt Relevant Skills. Asian Journal of Business and Management, 6(6), 85-91.



. The below keywords were used to determine the technology area:

- 1- Artificial Intelligence: we used these keywords: Intelligent, Automation, 5G, Smart Systems, AI Tools, Robotics, Machine Learning.
- 2- Big data: we used these keywords: Data Integration, Data Fusion, Data Analysis, Data Management, Data Assets.
- 3- Blockchain: we used these keywords: Blockchain, Digital Currency, Distributed Ledger, Privacy Technology, Smart Contracts.
- 4- Cloud Computing: we used these keywords: Cloud Computing, Edge Computing, Cloud Services, IoT, Cloud Infrastructure.

Further, General Keywords: Digital Technology, Digitalization, Digital Marketing, Digital Operations, E-Commerce, Digital Economy, Digital Trade, Digital System, Information Age, Information Technology, Information Integration, Communication Technology, Cross-Border E-Commerce, Internet, Network, Online and Offline Operations, B2B, B2C, C2C, P2P

Appendix A: Definitions of variables

Variables	Definition
INF_EFF	Investment inefficiency occurs when the residuals of equation 1 reflect the differences between the expected levels of investment, with negative and positive values indicating under and overinvestment, respectively. These residuals are the major proxy to inefficiency in investment (INF_EFF).
DIG_TRANS	We focus on the mentioning of four technological areas that are generally identified as being core to DT, specifically artificial intelligence (AI), blockchain, big data, and cloud computing. The presence of any keyword that was related to a certain technological sphere was coded as a binary value; therefore, each firm year observation received either the value of 1 in case at least one appropriate keyword had been identified or 0 otherwise. The firm level DT score was calculated by adding four binary indicators, thus creating a composite index that will take the form of 0 to 4. An increased score is an indication of greater adoption of digital technologies.
FIN_CONST	A dummy variable, whereby the value is 1 when the dividend payout ratio of a given firm is lower than the sample median, and 0 when the dividend payout ratio of a given firm is higher than the sample median
SIZE	The natural logarithm of total assets.
ROA	Net income divided by total assets.
LEV	The ratio of total debt to total assets.
CASH	Cash and cash equivalent divided by total assets.
AGE	The natural logarithm of the firm's age, calculated from the difference between the establishment date and the current year.
SALE_GR	The percentage change in sale.

Appendix B: Method for extracting digital transformation measurement: Source(s):

Author's own creation

Based on available methodological frameworks of previous studies (Zhou, Zhou, and Ji, 2022; Zhou et al., 2021; Mart Martin Peña et al., 2019), a general dictionary of keywords was created. The words used in this dictionary combine the vocabulary of the peer reviewed academic literature and the glossaries of consulting firms to be as specific as possible in meaning and as similar as possible across firms.

Zhou, S., Zhou, P., & Ji, H. (2022). Can digital transformation alleviate corporate tax stickiness? The mediation effect of tax avoidance. *Technological Forecasting and Social Change*, 184, 122028.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.

Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889–901.

Vial, G. (2021). Understanding digital transformation: A review and a research agenda. *Managing digital transformation*, 13-66.

Villalonga, B., & Amit, R. (2006). How do family ownership, control and management affect firm value? *Journal of Financial Economics*, 80(2), 385-417.

Xu, J., Yu, Y., Zhang, M., & Zhang, J. Z. (2023). Impacts of digital transformation on eco-innovation and sustainable performance: Evidence from Chinese manufacturing companies. *Journal of Cleaner Production*, 393, 136278.

Xu, Q., Zhang, J., & Zhou, W. (2023). Inefficient investment and digital transformation: What is the role of financing constraints? *Journal of Corporate Finance*, 80, 102336.

Zhang, C., & Liu, L. (2023). Corporate inventory and cash holdings in digital economy strategy: Evidence from China. *Finance Research Letters*, 53, 103607.

Zhou, D., Kautonen, M., Dai, W., & Zhang, H. (2021). Exploring how digitalization influences incumbents in financial services: The role of entrepreneurial orientation, firm assets, and organizational legitimacy. *Technological Forecasting and Social Change*, 173, 121120

Matt, C., Hess, T., & Benlian, A. (2015). Digital transformation strategies. *Business & Information Systems Engineering*, 57(5), 339–343.

McNichols, M. F., & Stubben, S. R. (2008). Does earnings management affect firms' investment decisions? *The Accounting Review*, 83(6), 1571–1603.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3), 261–297.

Morck, R., & Yeung, B. (2004). Family control and the rent-seeking society. *Entrepreneurship theory and practice*, 28(4), 391-409.

Mithas, S., Ramasubbu, N., & Sambamurthy, V. (2011). How information management capability influences firm performance. *MIS Quarterly*, 35(1), 237–256.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187–221.

Richardson, S. (2006). Over-investment of free cash flow. *Review of Accounting Studies*, 11(2), 159–189.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, 52(2), 737-783.

Stulz, R. (1990). Managerial discretion and optimal financing policies. *Journal of Financial Economics*, 26(1), 3–27.

Jensen, M. C., & Meckling, W. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.

Jiang, K., Du, X., & Chen, Z. (2022). Firms' digitalization and stock price crash risk. *International Review of Financial Analysis*, 82, 102196.

Johnson, S., Boone, P., Breach, A., & Friedman, E. (2000). Corporate governance in the Asian financial crisis. *Journal of Financial Economics*, 58(1-2), 141-186.

Johnson, S., & Mitton, T. (2003). Cronyism and capital controls: evidence from Malaysia. *Journal of Financial Economics*, 67(2), 351-382.

Kouaib, A. (2022). Corporate sustainability disclosure and investment efficiency: The Saudi Arabian context. *Sustainability*, 14(21), 13984.

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *The Journal of Finance*, 54(2), 471-517.

Lara, J. M. G., Osma, B. G., & Penalva, F. (2016). Accounting conservatism and firm investment efficiency. *Journal of Accounting and Economics*, 61(1), 221–238.

Martín-Peña, M. L., Sánchez-López, J. M., & Díaz-Garrido, E. (2020). Servitization and digitalization in manufacturing: The influence on firm performance. *Journal of Business & Industrial Marketing*, 35(3), 564–574.

Masoud, R., & Basahel, S. (2023). The effects of digital transformation on firm performance: The role of customer experience and IT innovation. *Digital*, 3(2), 109–126.

Gomariz, M. F., & Ballesta, J. P. S. (2014). Financial reporting quality, debt maturity, and investment efficiency. *Journal of Banking & Finance*, 40, 494–506.

Guizani, M. (2021). Macroeconomic conditions and investment–cash flow sensitivity: Evidence from Saudi Arabia. *International Journal of Finance & Economics*, 26(3), 4277–4294.

Guizani, M., & Ajmi, A. N. (2021). Financial conditions, financial constraints and investment–cash flow sensitivity: Evidence from Saudi Arabia. *Journal of Economic and Administrative Sciences*, 37(4), 763–784.

Gurbaxani, V., & Dunkle, D. (2019). Gearing up for successful digital transformation. *MIS Quarterly Executive*, 18(3), 6.

Habib, A., & Hasan, M. M. (2017). Managerial ability, investment efficiency, and stock price crash risk. *Research in International Business and Finance*, 42, 262–274.

Hertog, S. (2017). The political economy of distribution in the Middle East: is there scope for a new social contract? *International Development Policy| Revue internationale de politique de développement*, (7).

Hubbard, R. G. (1998). Capital-market imperfections and investment. *Journal of Economic Literature*, 36(1), 193–225.

Hwang, H. (2025). Internal capital allocation, voluntary disclosure, and investment efficiency. *Management Science*, 1–18. <https://doi.org/10.1287/mnsc.2022.01295>

Jensen, M. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*, 76(2), 323–329.

Chen, W., & Srinivasan, S. (2024). Going digital: Implications for firm value and performance. *Review of Accounting Studies*, 29(2), 1619–1665.

Cheng, M., Dhaliwal, D., & Zhang, Y. (2013). Does investment efficiency improve after the disclosure of material weaknesses in internal control over financial reporting? *Journal of Accounting and Economics*, 56(1), 1–18.

Cheng, X., Huang, F., Palmon, D., & Yin, C. (2021). How does information processing efficiency relate to investment efficiency? Evidence from XBRL adoption. *Journal of Information Systems*, 35(1), 1–25.

Claessens, S., Feijen, E., & Laeven, L. (2008). Political connections and preferential access to finance: The role of campaign contributions. *Journal of Financial Economics*, 88(3), 554-580.

Eberly, J. C. (1997). International evidence on investment and fundamentals. *European Economic Review*, 41(6), 1055–1078.

Eisdorfer, A., Giaccotto, C., & White, R. (2013). Capital structure, executive compensation, and investment efficiency. *Journal of Banking & Finance*, 37(2), 549–562.

Eulaiwi, B., Al-Hadi, A., Al-Yahyaee, K. H., & Taylor, G. (2021). Investment board committee and investment efficiency in a unique environment. *Emerging Markets Finance and Trade*, 57(15), 4408–4423.

Faccio, M. (2006). Politically connected firms. *American Economic Review*, 96(1), 369-386.

Fazzari, S. M., Hubbard, R. G., Petersen, B. C., Blinder, A. S., & Poterba, J. M. (1988). Financing constraints and corporate investment. *Brookings Papers on Economic Activity*, 1988(2), 141–206.

Bae, G. S., Choi, S. U., Dhaliwal, D. S., & Lamoreaux, P. T. (2017). Auditors and client investment efficiency. *The Accounting Review*, 92(2), 19–40.

Bajaher, M. S., & Asiri, M. (2025). The impact of digital transformation on ESG outcomes in the Saudi stock market. *Discover Sustainability*, 6(1), 1–21.

Bartsch, S., Weber, E., Büttgen, M., & Huber, A. (2021). Leadership matters in crisis-induced digital transformation: How to lead service employees effectively during the COVID-19 pandemic. *Journal of Service Management*, 32(1), 71–85.

Ben-Nasr, H., & Alshwer, A. A. (2016). Does stock price informativeness affect labor investment efficiency? *Journal of Corporate Finance*, 38, 249–271.

Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. V. (2013). Digital business strategy: Toward a next generation of insights. *MIS Quarterly*, 37(2), 471–482.

Biddle, G. C., Hilary, G., & Verdi, R. S. (2009). How does financial reporting quality relate to investment efficiency? *Journal of Accounting and Economics*, 48(2–3), 112–131.

Chen, F., Hope, O. K., Li, Q., & Wang, X. (2011). Financial reporting quality and investment efficiency of private firms in emerging markets. *The Accounting Review*, 86(4), 1255–1288.

Chen, Q., Jiang, X., & Zhang, Y. (2019). The effects of audit quality disclosure on audit effort and investment efficiency. *The Accounting Review*, 94(4), 189–214.

Chen, R., El Ghouli, S., Guedhami, O., & Wang, H. (2017). Do state and foreign ownership affect investment efficiency? Evidence from privatizations. *Journal of Corporate Finance*, 42, 408–421.

References

- Al-Hadi, A., Hasan, M. M., Taylor, G., Hossain, M., & Richardson, G. (2017). Market risk disclosures and investment efficiency: International evidence from the Gulf Cooperation Council financial firms. *Journal of International Financial Management & Accounting*, 28(3), 349–393.
- Alobaid, R. O. H., Qasem, A., & Al-Qadasi, A. A. (2024). Corporate social responsibility, ownership structure, and firm investment efficiency: Evidence from the Saudi stock market. *Sustainability*, 16(15), 6584.
- Alsahlawi, A. M., Chebbi, K., & Ammer, M. A. (2021). The impact of environmental sustainability disclosure on stock return of Saudi listed firms: The moderating role of financial constraints. *International Journal of Financial Studies*, 9(1), 4.
- Anderson, R. C., & Reeb, D. M. (2003). Founding-family ownership and firm performance: evidence from the S&P 500. *The Journal of Finance*, 58(3), 1301-1328.
- Asiri, M. (2025). The impact of digital transformation on cash holding: Evidence from Saudi Arabia. *Digital Policy, Regulation and Governance*.
- Asiri, M., Al-Hadi, A., Taylor, G., & Duong, L. (2020). Is corporate tax avoidance associated with investment efficiency? *The North American Journal of Economics and Finance*, 52, 101143.
- Assad, N. F., & Alshurideh, M. T. (2020). Financial reporting quality, audit quality, and investment efficiency: Evidence from GCC economies. *Waffen-Und Kostumkd. Journal*, 11(3), 194–208.



Funding

The authors declare that no funds, grants, or other support were received during the preparation of this manuscript.

Data availability

The data underlying this study's findings was sourced from London Stock Exchange Group (LSEG) and from Saudi Tadawul group <https://www.tadawulgroup.sa/wps/portal/tadawulgroup>. The data are available from the corresponding author upon reasonable request.

Declaration

Conflict of Interests: The authors have no relevant financial or non-financial interests to disclose.

6.2.Future research directions

The upcoming research can shift the sample further into the future, after 2022, to explore the long-term outcomes of digital initiatives of the DT, since many digital investments might realise benefits only at long distance perspectives. Although this study controls for the pandemic in terms of the coronavirus (indicator variables and subsample analyses), the pandemic is an unprecedented shock for the world economy, which might have impacted firms in heterogeneous ways (according to industries and over time). Future research may consider more granular metrics of pandemic severity (e.g., mobility restrictions, sector-specific exposure or government stimulus effects), in an effort to further disaggregate its effect on DT and investment efficiency. The other prospect concerns cross-country comparative studies. Although the present research is concerned with Saudi Arabia, which is an emerging market economy with institutional and historical peculiarities, it might be interesting to compare the results of other GCC countries or developed economies and learn more about the influence of institutional environments on the relationship between DT and inefficiency in investment.

What is more, future studies might investigate the prospects of particular technologies in the context of the DT framework artificial intelligence and blockchain. This is because their impact on efficiency might vary in intensity and character. Lastly, quantitative analyses may be supplemented with qualitative ones, e.g., case studies or interviews with managers, which will provide more in-depth information on the perceptions of decision-makers about the risks and opportunities of DT in terms of capital allocation. By confronting these issues, future research can further develop the insights into the intricate and changing relationship between digitalization and the financial constraints and efficiency of investments.

6.1.Implications

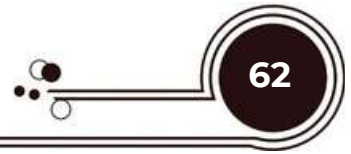
The results of the research have a number of significant implications for the work of practitioners and policymakers. The positive correlation between DT and investment inefficiency to corporate managers explains why they are required to be cautious when committing resources to digital initiatives. Although digital technologies are commonly described as the key to competitiveness, this paper's results demonstrate that resource misallocation can occur due to the adoption of digital technologies unless these technologies are accompanied by effective governance systems and strict project assessment. To stem inefficiency, managers must consequently supplement digital investments with sound risk assessment frameworks, apparent metrics of returns on investment, and tighter supervision.

As an investor, the findings indicate that the strategies of DT should be carefully considered by firms. The high DT score can be an indicator of innovation and future oriented behaviour, yet can also indicate inefficiency to the extent that digital efforts are made without a concrete connection to the value creation of the firm. However, institutional investors, specifically, can be involved in monitoring to make sure that DT improves and does not destroy capital efficiency.

Policymakers and regulators in Saudi Arabia can find the results of the current study relevant to their work. Because one of the pillars of economic diversification according to the Vision 2030 is DT, it is paramount to guarantee that technological adoption will not impair efficiency, but instead, will enhance it. Intensifying disclosure rules of the digital initiatives can enhance transparency and enable stakeholders to evaluate the risks and benefits in a more favourable manner. Similarly, inclusive digital adoption can be achieved through targeted assistance to small and medium-sized enterprises (SMEs), which in most cases have more limited financial capacity, mitigating the threat of inefficient investments in unproductive projects. Lastly, the diversification of financing tools that would fit digital investment requirements and robust governance systems might increase the capacity of firms to invest effectively in newly developed technologies.

Taken together, the findings highlight the delicate interaction between the use of technology and financing situation in the determination of investment behaviour of firms and especially in emerging economies where financial frictions are more vivid.

This research makes three main contributions to the literature. First, it brings in the DT as a new investment inefficiency determinant. Whereas earlier studies have focused on governance mechanisms, disclosure practices, and the quality of the financial reporting (Biddle et al., 2009; Chen et al., 2011; Al Hadi et al., 2017; Asiri, 2020), the current study is the first one to empirically study the role of DT in the formation of investment inefficiency in Saudi Arabia. By so doing, it will expand the literature on determinants of technological disruption as a significant factor of explanation. Second, it emphasises the moderating aspect of financial constraints, which previous studies have paid little attention to. Moreover, this paper expands on the work done by Alsahlawi et al. (2021), who analysed the financial situation with reference to sustainability disclosure, and demonstrates that financing frictions constitute a key boundary condition in defining the impact of DT on the investment performances. Third, the research provides functional and policy-based conclusions that could be applicable to the Saudi government's Vision 2030 policy, in which the pillar of economic diversification is digitalization. The connection of DT, financial constraints, and investment inefficiency supports the evidence presented by the study with implications for both corporate managers and policymakers aiming to create effective capital allocation in an increasingly digitalized economy.



6. Conclusion

The authors in this paper have explained the definition of DT and its impact on investment inefficiency in Saudi Arabia with having specific focus on the moderate role of financial constraints. The analysis of the firms listed on the Saudi Stock Exchange during 2019 to 2022 is used as data because it can be considered a unique situation where the point of interaction between technological change and financial frictions can be observed in an emerging market where rapid economic diversification is observed within the framework of Vision 2030. The degree of investment inefficiency was estimated based on the estimations of Biddle et al. (2009) and Chen et al. (2011) as the gap between the real investment in the firm and the expected investment according to the growth opportunities embedded in the firm. This strategy enabled the underinvestment (negative residuals) and overinvestment (positive residuals) contradicting the optimal behaviour as far investments are concerned. It was the DT that was identified in case of systematic manual analysis of annual reports on what is in the structured manual content analysis (e.g. clear references to artificial intelligence, blockchain, big data and cloud computing). This is the aggregate index of DT that determines the activity of the firms in the technological spheres that are at the core of the modern digital strategies.

Its empirical findings are strong evidence that DT is positively and significantly related to investment inefficiency. This implies that although DT is hailed as an engine of innovation and efficiency in theory, in reality it may cause distortions by enhancing the level of managerial discretion, higher operational risk, and high initial investments which may not necessarily maximize the long-term value of firms. Notably, the analysis further shows that the relationship is also moderated by financial considerations: the positive correlation between DT and investment inefficiency is weak in firms with greater financing frictions. This implies that constraints, much as they are perceived as a limitation, could bring about a disciplining effect on the managers by preventing them to over invest in expensive and speculative digital projects.

The results are also robust to a set of robustness checks such as alternative measure of investment inefficiency and DT and econometric methods that help reduce bias, such as propensity score matching (PSM) and the Heckman two-step method.

Table 10: Regression results examining the association between DIG and INF EFF using the Heckman two-step method

VARIABLES	(1) OLS	(2) Fixed effect
DIG_TRANS	0.0240** (2.57)	0.0401** (2.18)
FIN CONST	0.0083* (1.95)	0.0054 (1.37)
SIZE	-0.0026 (-0.93)	0.0342*** (3.82)
ROA	-0.0157 (-0.72)	-0.0848*** (-2.80)
LEV	0.0292 (1.57)	0.0072 (0.24)
CASH	-0.0355 (-1.06)	-0.0270 (-0.64)
AGE	0.0004 (0.05)	0.0399 (0.68)
SALE_GR	-0.0000 (-0.10)	-0.0005 (-0.86)
IMR	-0.0049 (-0.26)	-0.0050 (-0.18)
Constant	0.0140 (0.52)	-0.4033* (-1.96)
Observations	434	434
R-squared	0.041	0.103
YEAR	YES	YES
INDUSTRY	YES	YES
Number of identifier		119

Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1.

5.4. The inverse Mills ratio method

Table 10 shows the regression findings of the relationship between DT (DIG_TRANS) with investment inefficiency (INF_EFF) on the Heckman two-step method to eliminate the problem of possible sample selection bias. During the initial step, a probit model was estimated to determine the probability of the adoption of DT, given the firm-specific (SIZE, ROA, LEV, CASH, AGE, and sales growth) and year and industry-specific (fixed) effects. Based on this model, an inverse Mills ratio (IMR) was devised and included in the second stage regression as a control variable to eliminate possible selection effects.

The findings indicate that DIG TRANS continues to be positively and significantly related to the investment inefficiency in both specifications. The coefficient of DIG_TRANS is **0.0240 in the OLS model (Column 1) ($t = 2.57, p < 0.05$)** and **0.0401 in the fixed effects model (Column 2) ($t = 2.18, p < 0.05$)**. These results support the validity of our key conclusion that despite the possible presence of selection bias, firms that adopt digital technologies are still more likely to suffer than they should have been in deviating from optimal investment. Comprehensively, the Heckman two-step results can be regarded as additional support of our primary hypothesis; the DT contributes to a rise in investment inefficiency and should be regarded as supportive of the findings in the face of the possible bias in the sample selection.

Table 9: Regression results for the association between DIG and INF_EFF using PSM

VARIABLES	(1) replacement (0.01)	(2) no replacement (0.01)
DIG_TRANS	0.0338** (2.16)	0.0283* (1.71)
FIN_CONST	0.0067 (1.28)	0.0027 (0.53)
SIZE	-0.0012 (-0.54)	-0.0010 (-0.43)
ROA	-0.0124 (-0.41)	0.0057* (1.77)
LEV	0.0209 (1.27)	0.0240 (1.35)
CASH	-0.0421 (-1.07)	-0.0281 (-0.68)
AGE	-0.0019 (-0.28)	-0.0055 (-0.80)
SALE GR	0.0000 (0.16)	0.0001 (0.38)
Constant	0.0097 (0.29)	0.0195 (0.57)
Observations	284	260
R-squared	0.060	0.069
YEAR	YES	YES
INDUSTRY	YES	YES

Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1.

5.3. Propensity score matching

To counteract any endogeneity threats and to establish a strong main finding, we re-estimate the association between DT (DIG_TRANS) and investment inefficiency (INF_EFF) with the help of the Propensity Score Matching (PSM) approach. Our propensity scores are estimated by firm characteristics, and we match firms that undergo DT with non-digital firms that are similar. Two identical specifications are used: nearest neighbour matching, replacement, and a caliper of 0.01 (Column 1), nearest neighbour matching, no replacement, and a stricter caliper of 0.01 (Column 2).

As shown in Table 9, the findings are very robust, and they validate our main findings. In both specifications, it is stated that DIG_TRANS is positively and significantly related to investment inefficiency. Particularly, the replacement coefficient of DIG_TRANS is 0.0338 ($t = 2.16$, $p = 0.05$), and 0.0283 ($t = 1.71$, $p = 0.1$), without replacement. These findings indicate that - despite the possibility of sample selection bias based on matching - these firms still exhibit greater deviations from optimal investment despite controlling for it by matching. In general, the PSM analysis confirms the validity of our conclusion that DT leads to higher investment inefficiency, since it is another reason that supports the first hypothesis.

Table 8: Regression results for the association between DIG and INF_EFF using alternative measures of DIG_TRANS

VARIABLES	(1) artificial_intelligence	(2) blockchain	(3) cloud_computing	(4) big_data
DIG_TRANS	0.0076* (1.80)	0.0096 (0.99)	0.0094* (1.67)	0.0086 (0.92)
FIN_CONST	0.0089** (2.13)	0.0088** (2.08)	0.0085** (2.02)	0.0080** (2.01)
SIZE	-0.0024 (-1.32)	-0.0022 (-1.19)	-0.0024 (-1.35)	-0.0026 (-1.21)
ROA	-0.0191 (-1.08)	-0.0146 (-0.79)	-0.0186 (-1.01)	-0.0153 (-0.82)
LEV	0.0225* (1.68)	0.0259* (1.96)	0.0264** (2.04)	0.0265* (1.94)
CASH	-0.0362 (-1.22)	-0.0338 (-1.14)	-0.0365 (-1.23)	-0.0336 (-1.14)
AGE	0.0011 (0.23)	0.0001 (0.03)	0.0008 (0.17)	0.0008 (0.15)
SALE_GR	0.0000 (0.04)	-0.0000 (-0.22)	-0.0000 (-0.11)	-0.0000 (-0.10)
Constant	0.0086 (0.34)	0.0110 (0.42)	0.0108 (0.42)	0.0112 (0.43)
Observations	434	434	434	434
R-squared	0.037	0.030	0.034	0.033
YEAR	YES	YES	YES	YES
INDUSTRY	YES	YES	YES	YES

Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1.

5.2. Alternative measure of digital transformation

Table 8 provides the outcome of the regression analysis of the relationship between the individual elements of DT (DIG_TRANS) and investment inefficiency (INF_EFF). To lose the contribution of each particular technology, an overall index of DT is broken down into four groups: artificial intelligence (AI), blockchain, cloud computing, and big data. The findings demonstrate that AI and cloud computing have a positive and significant relationship with investment inefficiency (AI: 0.0076, $t = 1.80$, $p < 0.1$; cloud computing: 0.0094, $t = 1.67$, $p < 0.1$). Likewise, there is a positive but insignificant relationship between big data (0.0086, $t = 0.92$) and blockchain (0.0096, $t = 0.99$). Indicated here is that firms utilising AI and cloud computing are especially likely to make poor investment choices, which justifies the claim that DT can enhance inefficiencies by creating adjustment costs, management discretion, or enhanced uncertainty about implementation. On the whole, the disaggregated findings strongly suggest that not all technologies have the same impact on investment inefficiency as a result of DT. Instead, the inefficiency enhancing effect is most likely to manifest itself in the fields of AI and cloud computing, despite the fact that blockchain and big data have a less significant role to play.

Table 7: Regression results for the association between DIG and INF_EFF using alternative measures of INF_EFF

VARIABLES	(1)	(2)
	INV EFF NEG	ABS EXCESS INV
DIG_TRANS	0.0150*	0.0216**
	(1.65)	(2.52)
FIN_CONST	0.0058	0.0026
	(1.48)	(0.62)
SIZE	-0.0041**	-0.0065***
	(-2.06)	(-3.11)
ROA	0.0024	0.0372*
	(0.11)	(1.92)
LEV	0.0258**	0.0147
	(2.09)	(1.19)
CASH	-0.0184	-0.0182
	(-0.54)	(-0.62)
AGE	0.0026	-0.0038
	(0.55)	(-0.74)
SALE GR	0.0002	-0.0003
	(1.30)	(-1.25)
Constant	0.0166	0.0927***
	(0.65)	(3.12)
Observations	410	434
R-squared	0.026	0.063
YEAR	YES	YES
INDUSTRY	YES	YES

Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1.

The second measure of inefficiency in investments is ABS_EXcess_INV. As Eisdorfer et al. (2013) measure efficiency within investment by the extent of variation of current investment of a firm between its current and predictable or benchmark investment, we also measure investment efficiency similar to Richardson (2006). Actual investment refers to the gross capital expenditures which are occupied by the text value of total assets at the commencement of the year. The median investment in the industry of the firm proxies for predictable investment. In order to operationalize the investment efficiency, we use the measure ABS_EXCESS_INV, which is the difference between the actual investment of the firm and the industry median. Increased values of ABS_EXCESS_INV mean increased deviations as compared to the industry standard, and consequently reduce the investment efficiency. Column (2) of Table 7 reports the results with ABS_EXcess inv serving as a substitute for investment inefficiency. The coefficient of DT (DIG_TRANS) is positive and statistically significant (0.0216, $t = 2.52$, $p < 0.05$), meaning that the more firms are digitally engaged, the more they use the industry standard of investment. This supports the central message that DT is linked to increased inefficiency in investment, and it ascertains the consistency of the findings in the various measurement strategies.

Combined, Tables 6 in both Column (1) and Column (2) indicate that DT raises investment inefficiency, regardless of the measurement of inefficiency as model-based residual or industry standards.

5. Additional analysis

5.1. Alternative measure of investment inefficiency

Investment inefficiency can also be gauged using the other methods as a robustness check. The former is in line with Biddle et al. (2009), who, in their measure, use regression-based models with residuals being the inefficiency, in which positive residuals would be overinvestment and negative residuals would be underinvestment. To arrive at the estimated investment, we will use a similar model and be parsimonious in the sense that we explain investment by revenue growth. Since the correlation between investment and revenue growth might not be constant in the face of both increase and decrease, we will use a piecewise linear specification:

$$INV_{it} = \alpha_0 + \beta_1 NEG_{it-1} + \beta_2 SALE_GR_{it-1} + \beta_3 (NEG_{it-1} * SALE_GR_{it-1}) + \varepsilon_{it} \quad (4)$$

Where:

INV represents investment for firm *i* in year *t*, measured as capital expenditures scaled by lagged total assets.

NEG is a dummy variable equal to 1 if sale growth is negative, and 0 otherwise.

SALE_GR the percentage change in sale.

Like Biddle et al. (2009) and Chen et al. (2011), we cross-sectionally estimate the cross-industry year investment model. The model residual values contain any deviation of the anticipated investment; positive values imply overinvestment and vice versa, underinvestment. Table 7 Column 1 regression one is used to analyse the relationship between DT (DIG_TRANS) and investment inefficiency based on the first measure, which is on residuals of the expected investment model (Biddle et al., 2009; Chen et al., 2011). Results indicate that DIG_TRANS has a positive and significant correlation with investment inefficiency (coefficient = 0.0150, *t* = 1.65, *p* < 0.1), implying that the higher a firm's digital adoption, the more likely it will be below its optimal levels of investment. This finding is not only in line with our previous results but it also supports the hypothesis that the DT leads to inefficiency in the capital allocation process.

Table 6: Regression results for the moderating effect of financial constraints on the association between DIG and INF EFF

VARIABLES	(1) OLS	(2) Fixed effect
DIG_TRANS	0.0294*** (3.00)	0.0498** (2.54)
FIN_CONST	0.0123** (2.53)	0.0106* (1.93)
DIG_TRANS * FIN_CONST	-0.0195* (-1.67)	-0.0217 (-1.40)
SIZE	-0.0028 (-1.44)	0.0328*** (3.40)
ROA	-0.0164 (-0.87)	-0.0836*** (-3.12)
LEV	0.0162** (1.99)	0.0027 (0.22)
CASH	-0.0449 (-1.58)	-0.0281 (-0.73)
AGE	0.0015 (0.31)	0.0364 (0.62)
SALE_GR	-0.0000 (-0.23)	-0.0004 (-0.96)
Constant	0.0039 (0.15)	-0.3867* (-1.87)
Observations	434	434
R-squared	0.046	0.109
YEAR	YES	YES
INDUSTRY	YES	YES
Number of identifier		119

Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1.

The important interaction between DT and financial constraints suggests that financing conditions represent an important boundary condition in this relationship. The literature suggests that there are two opposing effects of financial constraints: firstly, the constrained firms may underinvest because of limited access to capital (Myers and Majluf, 1984; Cheng et al., 2013); and secondly, financial discipline may also reduce managerial overconfidence and limit inefficient expansion (Habib and Hasan, 2017; Hwang, 2025). Our findings suggest that, in the institutional context of Saudi Arabia, a country in which the sensitivity of investment to cash flows is relatively high (Guizani and Ajmi, 2021), financial constraints have a meaningful influence on the impact of digital investments on the efficiency of capital allocation. This underlines the fact that DT is not independent of the financing structure of firms and reinforces the importance of taking financial constraints into account as a moderating mechanism.

4.4.Moderation result

Table 6 shows the regression outcomes of the moderating factor of financial constraint (FIN_CONST) in the correlation between DT (DIG_TRANS) and investment inefficiency (INF_EFF). According to the results, it would be true to state that DIG_TRANS is significantly and positively correlated with investment inefficiency in both models (OLS: 0.0294, $t = 3.00$, $p < 0.01$; Fixed effects: 0.0498, $t = 2.54$, $p < 0.05$), indicating that the greater the digital interaction, the greater the deviations from optimum investment. The value of FIN_CONST is also positive and significant (OLS: 0.0123, $p < 0.05$; Fixed effects: 0.0106, $p < 0.1$), strongly suggesting that more inefficient firms in their investment decisions are financially constrained.

The correlation between the interaction term (DIG_TRANS $\times$ FIN_CONST) is negative in both specifications (OLS: - 0.0195, $p < 0.1$; Fixed effects: - 0.0217, not significant), which means that financial constraints undermine the positive correlation between DT and investment inefficiency. That is, although on average DT leads to inefficiency, this is less true when the firms are, by a scarcity of resources, constrained. This is perhaps due to these constrained firms being more discriminating in their use of resources to digital projects. Regarding the control variables, the firm size (SIZE) is a positive and significant fixed effect, and profitability (ROA) is negative and significant, which is consistent with the perception that bigger firms have more investment inefficiencies, considering the fact that more profitable firms are resource allocators. The leverage (LEV) is not insignificant and positive in the estimation of the OLS. However, it is insignificant in the fixed effects model. The remaining controls, namely cash holdings (CASH), the age of the firm (AGE), and sales growth (SALE_GR), do not play a significant role in the inefficiency of investments.

Comprehensively, these findings confirm two things: firstly, the hypothesis that DT raises investment inefficiency; and secondly, financial constraints moderate this relationship by diffusing the inefficiency enhancing impact of digital adoption.

While previous research tends to focus on the efficiency-enhancing role of digitalization in the form of enhanced transparency and data analytics (Verhoef et al., 2021; Sun et al., 2022), our study is consistent with emerging evidence suggesting that DT may also introduce complexity to managerial tasks and increase managerial discretion (Chen et al., 2019; Jiang et al., 2022). In particular, digital initiatives often involve intangible, long-horizon investments which are difficult to monitor and which may increase overinvestment behaviour (Richardson, 2006). In the Saudi context - which is marked by concentrated ownership and evolving governance mechanisms (Eulaiwi et al., 2021; Alobaid et al., 2024) - such discretion could mean capital allocation distortions rather than efficiency gains. Thus, the results are consistent with the view that the economic consequences of DT critically depend on institutional and governance conditions, policies and procedures.

Table 5: Regression result: The effect of DIG on INF_EFF

VARIABLES	(1) OLS	(2) Fixed Effect
DIG_TRANS	0.0238** (2.57)	0.0397** (2.17)
FIN_CONST	0.0081* (1.93)	0.0054 (1.36)
SIZE	-0.0032 (-1.63)	0.0339*** (3.89)
ROA	-0.0190 (-1.06)	-0.0873*** (-3.25)
LEV	0.0260** (2.00)	0.0041 (0.16)
CASH	-0.0394 (-1.34)	-0.0302 (-0.78)
AGE	0.0017 (0.34)	0.0398 (0.68)
SALE_GR	0.0000 (0.21)	-0.0004 (-0.90)
Constant	0.0123 (0.48)	-0.4029* (-1.96)
Observations	434	434
R-squared	0.041	0.103
YEAR	YES	YES
INDUSTRY	YES	YES
Number of identifier		119

Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1

4.3. Regression results

Table 5 reports the regression findings of the research between DT (DIG_TRANS) and investment inefficiency (INF_EFF). To identify the method of estimating the panels, we performed a Hausman specification test of comparing fixed-effects (FE) and random-effects (RE) models. The resulting test statistic is named as a chi-squared test of 10 degrees of freedom is 20.47 ($p=0.0251$), which leads to rejecting the probability value of the null hypothesis that difference of coefficients is not systematic. Implied here is that unobserved firm-level heterogeneity is linked to the explanatory variables and thus, the fixed-effects model generates consistent estimates.

DIG_TRANS is positively and significantly correlated to investment inefficiency in both the OLS and the fixed effects model, with a coefficient of 0.0238 ($t = 2.57$, $p < 0.05$) and 0.0397 ($t = 2.17$, $p < 0.05$), respectively. This finding implies that firms that are more active in DT are more likely to experience inefficiency in optimum investment and that digital adoption, not decreasing inefficiency, actually increases distortions in investment. The first reason could be that the introduction of new sophisticated technologies creates uncertainty, adjustment costs, and more managerial discretion that further contribute to inefficiencies in allocating capital. These results are consistent with the recent evidence that DT can trigger transitional issues for firms, as opposed to those studies highlighting its efficiency-enabling nature. Generally, the DIG_TRANS to INF_EFF is a positive and significant impact, producing empirical data which supports our hypothesis. Specifically, it means that DT is related to higher investment inefficiency.

Financial constraint (FIN_CONST) has a significant effect, which is positive in the OLS model, while profitability (ROA) has a negative and significant effect in the fixed effects model only. The leverage (LEV) has a positive relationship in the OLS estimation, and cash holdings (CASH), firm age (AGE), and sales growth (SALE_GR) are not significant. Meanwhile the positive and statistically significant coefficient on DT implies that the more engagement there is in digital technologies, the more inefficient their investments are.

4.2. The person correlation results

Table 4 shows the Pearson correlation of the study variables. DT (DIG_TRANS) and financial constraints (FIN_CONST) have a positive correlation with investment inefficiency (INF_EFF) ($r = 0.085$, $p < 0.1$) and ($r = 0.094$, $p < 0.1$), respectively. In comparison, it can be noted that INF_EFF does not correlate significantly with firm size (SIZE), profitability (ROA), leverage (LEV), cash holdings (CASH), firm age (AGE), or sales growth (SALE_GR), which is also in line with the results documented by Alobaid et al. (2024) and Al-Hadi et al. (2017).

Table 4: Pearson correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) INF_EFF	1.0000								
(2) DIG_TRANS	0.0847*	1.0000							
(3) FIN_CONST	0.0937*	0.0369	1.0000						
(4) SIZE	-0.0249	0.3990***	-0.0555	1.0000					
(5) ROA	-0.0366	0.1577***	0.1718***	0.1766***	1.0000				
(6) LEV	0.0433	0.0644	-0.1765***	0.3960***	-0.1339***	1.0000			
(7) CASH	-0.0399	-0.0480	0.0941*	-0.3143***	0.0349	-0.2078***	1.0000		
(8) AGE	-0.0019	-0.1497***	0.0910*	-0.1216**	0.0272	-0.1731***	0.0465	1.0000	
(9) SALE_GR	-0.0518	-0.0161	-0.0165	0.0466	0.2814***	0.0335	0.0221	0.0372	1.0000

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 3 reports the diagnostic test using Variance Inflation Factors (VIF). The results show that all values of VIF are well below conventional levels (maximum value of VIF = 2.03; average values of VIF = 1.49), suggesting that multicollinearity in our regression models is not evident.

Table 2: Descriptive statistics

Variable	N	Mean	S.D.	0.25	Mdn	0.75
INF EFF	434	-0.001	0.04	-0.023	-0.007	0.011
DIG_TRANS	434	0.876	0.941	0	1	1
FIN_CONST	434	0.472	0.499	0	0	1
SIZE	434	7.931	1.58	6.964	7.724	8.51
ROA	434	0.03	0.087	-0.009	0.028	0.076
LEV	434	0.155	0.152	0.018	0.103	0.261
CASH	434	0.05	0.058	0.017	0.032	0.059
AGE	434	3.383	0.479	3.045	3.466	3.761
SALE GR	434	0.109	0.367	-0.061	0.056	0.192

Table 3: Diagnostic test

Variable	VIF	1/VIF
DIG_TRANS	1.43	0.701258
FIN_CONST	1.15	0.869174
SIZE	2.03	0.493065
ROA	1.2	0.833516
LEV	1.47	0.680109
CASH	1.2	0.834878
AGE	1.17	0.857309
SALE_GR	1.05	0.955345

4.Results

4.1. Descriptive statistics and diagnostic test

Table 2 summarizes the descriptive statistics of the variables applied in the analysis, having 434 firm years. The dependent variable, investment inefficiency (INF_EFF), has a relatively small standard deviation (0.04) with a mean value that is near zero ($-0.001 >$). This means that on average, the firms in the sample invest near their predicted optimal levels, although there are deviations in the form of overinvestment and underinvestment. Such an understanding of INF_EFF is not new to the existing literature (e.g., Biddle et al., 2009; Chen et al., 2011) and complies with the method chosen by Alobaid et al. (2024). DT (DIG_TRANS) has a mean equal to 0.876 with a range of 0 to 4 and a median of 1. The mean of financial constraints (FIN_CONST) is 0.472, which means that almost half of the firms included in the sample are considered to be financially constrained based on the dividend payout criterion. This outcome aligns with Alsahlawi, Chebbi, and Ammer (2021), who also use the same measure in the case of Saudi firms. Firm size (SIZE) is one of the control variables with a mean of 7.931 (ranging between about 6.96 at the 25th percentile up to 8.51 at the 75th percentile). The mean profitability (ROA) is 0.03, which implies that firms are making an average of 3 percent on their assets, which varies (S.D. = 0.087) across firms. The leverage (LEV) is 0.155, meaning that the proportion of the debt to the assets is approximately 15.5 percent. The cash holding (CASH) is 5% of total assets, and the average age of firms (AGE) is 3.383. Lastly, Sales growth (SALE_GR) has a mean of 0.109.

3.4. Financial constraints measure

Financial constraints (FIN_CONST) parameter is measured, and it is a dummy variable. Here the value is 1 when the dividend payout ratio of a given firm is lower than the sample median, and 0 when the dividend payout ratio of a given firm is higher than the sample median. This is in line with the method deployed by Fazzari et al. (1988).

3.5. Control variables

Similar to prior studies (e.g., Biddle et al., 2009; Cheng et al., 2013; Bae et al., 2017; Eisdorfer et al., 2013; Asiri et al., 2020; Kouaib, 2022), we present some of the control variables that are usually related to investment efficiency at the firm level. They are: firm size (SIZE), profitability (ROA), leverage (LEV), cash holdings (CASH), firm age (AGE), and sales growth (SALE_GR). Natural logarithm of total assets will be used as the measure of firm size (SIZE). The profitability of firms is calculated in terms of the return on assets (ROA), which is calculated as net income/total assets. The total debt to total assets ratio is known as leverage (LEV). The ratio of cash, short term investments to total assets is calculated as the cash holdings (CASH). In ages of firms (AGE), we need to know the year in which the firm was established and then calculate the number of years taken since the establishment of the firm and then take the natural logarithm of the number, and minus the foundation year of the firm. The sales growth (SALE G) will be determined as the pace of the annual growth in total sales. Finally, we use year and industry dummy variables in the regression model in a bid to explain some of the non-observable time and sector effects. Dependent, independent, and control variables will be used in the analysis; these variables will be specified in Appendix A.

3.6. Regression model

We employ the following models to test our hypothesis:

$$INF_EFF_{i,t} = \alpha_0 + \beta_1 DIG_TRANS_{i,t} + \beta_2 FIN_CONST + \beta_3 SIZE_{i,t} + \beta_4 ROA_{i,t} + \beta_5 LEV_{i,t} + \beta_6 CASH_{i,t} + \beta_7 AGE_{i,t} + \beta_8 SALE_GR_{i,t} + Firm + Year + \varepsilon \quad (2)$$

$$INF_EFF_{i,t} = \alpha_0 + \beta_1 DIG_TRANS_{i,t} + \beta_2 FIN_CONST_{i,t} + \beta_3 DIG_TRANS_{i,t} * FIN_CONST_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 ROA_{i,t} + \beta_6 LEV_{i,t} + \beta_7 CASH_{i,t} + \beta_8 AGE_{i,t} + \beta_9 SALE_GR_{i,t} + Firm + Year + \varepsilon \quad (3)$$

We conduct cross-sectional regressions of the investment model every year and in each industry to estimate the expected investment. The resulting residuals reflect the differences between the expected levels of investment, with negative and positive values indicating under- and overinvestment, respectively. These residuals are the major proxy to inefficiency in investment (INF_EFF). As a consequence of this, a positive correlation between the key explanatory variables and INF_EFF implies that inefficiency in investing will increase.

3.3. Digital transformation measure

In order to quantify the DT of firms, this study and research uses a structured technical or manual content analysis of annual reports. Moreover, the research analysis will focus on the mention of four technological areas that are generally identified as being core to DT, namely artificial intelligence (AI), blockchain, big data, and cloud computing. Based on available methodological frameworks of previous studies (Zhou, Zhou, and Ji, 2022; Zhou et al., 2021; Mart Martin Peña et al., 2019), a general dictionary of keywords was created. The words used in this dictionary combine the vocabulary of the peer reviewed academic literature and the glossaries of consulting firms to be as specific as possible in meaning and as similar as possible across firms. Essentially, the business description and the operational sections of the annual reports of the firms in the Saudi Arabia listings were subjected to manual textual analysis. Also, the presence of any keyword that was related to a certain technological sphere was coded as a binary value; consequently, each firm year observation received either the value 1 in case at least one appropriate keyword had been identified or 0 otherwise. The firm level DT score was calculated by adding four binary indicators, thus creating a composite index that will take the form of 0 to 4. An increased score is an indication of greater adoption of digital technologies. It is a clear, repeatable, and accurate way of recording firm level DT using this manual coding method. The index is multidimensional in nature because it targets technology-specific references and reflects how firms report on their technological orientation publicly. Appendix B describes the method for extracting the measurement of DT.

Since the sample period (2019-2022) coincides with the COVID19 pandemic, which has shown to have an impact on corporate investment behaviour, this study includes a covid19 indicator variable and conducts other forms of robustness checks to adjust other effects of the pandemic. It emerges that the main findings are qualitatively the same when the period of the pandemic is considered.

Table 1: Sample description

Panel A: Sample selection	
Total number of firm-year observations (2019-2022)	764
Less: Fin firms	(128)
Less: missing value to calculate the variables	(202)
Final sample	434
Panel B: Year distribution	
2019	102
2020	111
2021	109
2022	112
Total	434
Panel C: Industry distribution	
Basic Materials	71
Consumer Discretionary	95
Consumer Staples	53
Energy	6
Health Care	31
Industrials	117
Real Estate	30
Telecommunications	12
Technology	11
Utilities	8
Total	434

3. Research design

3.1. Sample selection

The first sample comprises firms that appear on the Saudi Stock Exchange between 2019 and 2022. The sample begins in 2019 to cover the period following the adoption of the key DT programs that were part of the Vision 2030 policy[1]. The financial variables to be examined are obtained at the London Stock Exchange Group (LSEG), which was formerly called Refinitiv. To create the final sample, the dataset is screened in a number of steps. First, financial firms are not included since they have different reporting standards and regulatory setups, which means that 128 firm year observations are eliminated. Second, the firm year observations that are missing values needed in the computations of the variables are eliminated, which explains 202 further deletions. Once these criteria are used, the resulting final sample is 434 firm year observations of non-financial firms. Continuous variables are winsorized at the 1st and 99th percentiles to mitigate the influence of outliers. Table 1 summarizes the process that was adopted to develop the final sample.

3.2. Investment inefficiency measure

At the heart of the concept of investment efficiency is a firm's ability to invest in projects that have a more positive net present value (NPV) to prevent the challenge of overinvestment and underinvestment. In line with the previous literature, such as Biddle et al. (2009) and Chen et al. (2011), this research defines investment efficiency as an actual investment that is not expected to be the investment that is expected to be made, depending on firm specific growth opportunities. In line with Biddle et al. (2009) and Chen et al. (2011), we project the anticipated investment model by using growth in revenue as a proxy for measuring investment opportunities in the firms. The model is given as follows:

$$INV_{it} = \alpha_0 + \beta_1 SALE_GR_{it-1} + \varepsilon_{it} \quad (1)$$

Where:

INV is an investment for firm *i* in year *t*, it is the capital expenditures divided by lagged total assets.

SALE_GR the percentage of sale growth.

A number of studies verify that institutional constraints such as poor capital markets, high information asymmetry, and strict financial reporting conditions are present in the Saudi economy (Al Hadi et al., 2017; Alobaid et al., 2024). Within these types of limitations, digital initiatives can be pursued more selectively, not due to opportunistic reasons, but as a result of strategic alignment. Moreover, as Xu et al. (2023) contend, in the scenario of constrained financing, DT could increase the sensitivity of investment cash flow. Nonetheless, in cases where there is a shortage of capital, managers' discretion is also constrained, and less space is afforded to inefficiency in spending. Financial constraints in this respect are not only a constraint but a disciplining force to better capital allocation, even in disruptive technological change.

As shown by Guizani and Ajmi (2021), Saudi firms experience a high sensitivity to investment cash flow because financial development is lacking and high information asymmetry exists. This has consequently made those firms that are constrained in the Saudi economy depend very much on internal funds for their investment. This dependence is restrictive but it offers natural restraint to over- or unbalanced investments, such as those being forced by digital enthusiasm or innovation signalling strains. The research highlights that macroeconomic volatility and institutional voids in Saudi Arabia also contribute to and augment the disciplining effect of financial constraints, particularly when external funding is not readily available.

Thus, based on the above analysis, our second hypothesis is posited as follows:

H2: Financial constraints significantly moderate the effect of digital transformation on investment inefficiency.

2.5. Moderation of financial constraints

The connection between DT and investment efficiency is rather theoretical, as presented at the beginning of the paper. Although DT can help firms become more transparent and more focused on decisions using data-based tools and agility (Teece et al., 1997; Verhoff et al., 2021), it can also cause agencies to become less efficient in investments because of information complexity, strategic misalignment, and agency problems (Gurbaxani and Dunkle, 2019; Matt et al., 2015). In addition, the level of financial challenge of a firm is one of the serious aspects that determines this relationship. Theoretically, financial constraints may either enhance or reduce the impacts of DT on the investment outcomes, based on the firm's peculiarities, market conditions, and managerial behaviour.

The available literature positively indicates two prospects in the relationship between financial constraints and investment decisions. Those businesses with the tightest financial resources might be overly investing in potentially successful digital projects due to the inability to access capital, which leads to a high level of investment inefficiency by neglecting the positive NPV projects (Cheng et al., 2013; Richardson, 2006). This is consistent with the theory of pecking order (Myers and Majluf, 1984), which argues that asymmetric information between managers and external investors would increase the cost of financing, especially in opaque or risky digital projects.

Conversely, constrained firms may turn out to be more disciplined in terms of investment. These firms have little internal and external funds and are, therefore, forced to carefully consider, and rank projects, and in many cases, they tend to use more rigid capital budgeting procedures. As a result, financial constraints can be used as the governance tool that will limit managerial overconfidence and prevent value-destroying overinvestment in online activities (Habib and Hasan, 2017; Hwang, 2025). Financial discipline is a counterbalance in such situations, since it presents the problem of inefficiency that is posed by the complexity and opaqueness of digital investments (Chen et al., 2019).



The other way in which DT can compromise efficiency in investments is the overload of information. Although DT produces large amounts of data, the outside stakeholders such as analysts, might not have the ability or the instruments to interpret the information. Feng and Kim (2021) caution that the unstructured nature of Big Data may fail to assist in monitoring, and it may introduce a veil of complexity into the capital expenditures. Chen et al. (2019) state that this kind of transparency makes the market less disciplined, which supports inefficient and unstable investment behaviour. The result is a less restrictive external monitoring environment, greater uncertainty, and systematic deviation from the best investment policy (Zhang et al., 2023).

DT efforts typically require substantial capital investments, strategic commitment over the long-term and complex implementation processes. Although DT is generally associated with improved efficiency and information transparency (Bharadwaj et al., 2013; Vial, 2021), the economic impact of DT may critically depend on the governance environment. In environments where there are Type II agency conflicts, digital investments may be strategically used to extend control and increase prestige or create empire-building objectives as opposed to operational efficiency (Jensen, 1986). Such behaviour could lead to over-investment or inefficient allocation of capital and subsequently, increase inefficiency of investment.

Therefore, the examination of DT in the institutional context of Saudi Arabia is of particular importance. The combination of centralized authority, concentrated ownership and family involvement may condition the effectiveness of digital initiatives and help to explain why DT may potentially exacerbate rather than mitigate investment inefficiency in emerging markets that are characterized by Type II agency problems.

Thus, based on the above analysis, our first hypothesis takes the following form:

H1: Digital transformation has a significant positive effect on investment inefficiency.

2.4. Hypotheses development

DT is expected to enhance investment efficiency. Technologies such as eXtensible Business Reporting Language (XBRL) streamline reporting and improve information quality for analysts and investors, thereby curbing opportunistic overinvestment (Cheng et al., 2021; Feng & Kim, 2021). DT also strengthens price informativeness, offering real time feedback that helps managers fine-tune investment decisions (Ben Nasr & Alshwer, 2016). These dynamics align with the Resource Based View (RBV) and Dynamic Capability Theory, which posit that DT enhances a firm's ability to sense, seize, and reconfigure investment opportunities through: firstly, superior data analytics; and secondly, agile resource allocation (Teece et al., 1997; Verhoef et al., 2021; Sun et al., 2022).

In another body of literature, however, there is a paradox: there are conditions when DT can reduce the efficiency of investment. It is especially significant in emerging markets like the ones in the GCC, where agency issues are aggravated by unique ownership arrangements, specifically, family control or government ownership (Chen et al., 2011; Eulaiwi et al., 2021). This critical view is being supported by emerging empirical evidence. Jiang et al. (2022) determine that DT does enhance risk controls, although it also raises the risk of investment inefficiency, particularly in smaller firms and low coverage by analyst coverage. Xu et al. (2023) establish that DT makes investment cash flow of financially constrained firms more sensitive, which can mean a transition to internal funds and a move away, and potentially more efficient external funds.

Besides, DT transforms the internal financial environment. Asiri et al. (2025) demonstrate that DT among Saudi firms is linked with higher cash holdings, which implies increased liquidity as the operational efficiency is improved. Nevertheless, this brings about moral hazard as well. With free cash flow flowing in for managers, they can also indulge in a value-destroying investment that cannot be checked by the outside world, a classical overinvestment situation (Richardson, 2006). Moreover, DT complicates and intensifies investment projects and increases the agency problem because it introduces additional possibilities to exercise discretionary decision-making (Hwang, 2025; Habib and Hasan, 2017).

2.3. Digital transformation

DT is the process that unites innovative technologies into the framework of a firm's operations, management, and strategy (Vial, 2021; Verhoef et al., 2021; Bajaher and Asiri, 2025; Asiri et al., 2025). DT is not a technological change but instead a strategic one, which is transforming business models, governance structure, and operational processes (Sun et al., 2022). This forced firms to become more digital as the COVID-19 pandemic increased the adoption of DT, and to be resilient and competitive (Chen and Srinivasan, 2019; Bartsch et al., 2020). Nevertheless, though it has strategic potential, the implementation of DT is not homogeneous across firms and industries and can have both beneficial and harmful effects based on the preparation of firms, their systems of governance, and the external environment.

In recent literature, a number of channels emerged by which DT influences corporate finance, including cost structure, financial reporting, governance, and capital market outcomes. As an example, Jiang et al. (2022) discovered that DT lowers the risk of stock price crash greatly, which can be explained by the better information transparency and improved mechanisms of internal control. According to Chen and Srinivasan (2019), firms that practice DT have better market-to-book ratios and receive abnormal returns despite the accounting conservatism and intangibles adjustment. Nevertheless, such reactions to the market are frequently anticipated before a real increase in the operational performance, implying a potential dislocation between a perceived and achieved gain. The theoretical potential of DT is the effective internalization and processing of a large volume of data, resulting in high quality strategic and capital allocation decisions. In fact, the positive relationship between DT and positive results of governance, including ESG performance, has been discovered recently (Bajaher and Asiri, 2025).

Research also points out the need to have high quality information environments in order to counter underinvestment. Better financial reporting quality (FRQ) and accounting conservatism mitigate the degree of asymmetry, thus boosting the confidence of creditors and supporting access to capital (Biddle et al., 2009; Lora et al., 2016). Empirical research in the Gulf Cooperation Council (GCC) area supports it, as it shows that solutions such as financial reporting quality and auditor credibility play a crucial role in reducing underinvestment (Alobaid et al., 2024; Assad and Alshurideh, 2020). On the other hand, overinvestment is the situation in which managers invest in value-destroying projects, and the rationale behind this move is normally because such managers have personal interests, and this could be for reasons like empire building or job security (Jensen and Meckling, 1976). The behaviour is intensified by the fact that the firms have large free cash flows, which protect the capital market's managerial decision-making efforts (Stulz, 1990; Richardson, 2006). Indicatively, Chen et al. (2017) and Asiri et al. (2020) both suggest that effective internal controls are non-existent in cases where overinvestment can flourish.

As a way of preventing overinvestment, the previous literature focuses on the importance of corporate governance and monitoring processes. Board oversight (Eulaiwi et al., 2021), external audit of high quality (Bae et al., 2017), and expansive disclosure policies (Gomariz & Ballesta, 2014) are all found to decrease managerial discretion. Corporate Social Responsibility (CSR) efforts and sustainability reporting have been shown to work well in enhancing transparency and decreasing excessive overinvestments in the Saudi setting (Alobaid et al., 2024; Kouaib, 2022). Accordingly, investment efficiency is not the sole factor of financial and market conditions, but should also take into account the quality of information and governance systems, and, more recently, digital capabilities.

In such situations, controlling shareholders may have private benefits of control such as the ability to tunnel, related party transactions or empire-building strategies (Johnson et al., 2000). Family controlled firms, which are prevalent in Saudi Arabia, can compound these dynamics as well. Prior literature suggests that family dominance may make entrenchment more likely and transparency less likely, particularly in emerging markets where investor protection is weaker (Anderson & Reeb, 2003; Morck & Yeung, 2004). When the mechanisms for legal enforcement and minority shareholder protection are relatively weak, concentrated ownership may permit controlling shareholders to have substantial discretion in decisions regarding capital allocation (La Porta et al., 1999).

2.2. Investment efficiency

One of the basic concepts of financial economics is corporate investment efficiency, which defines how well a firm uses its capital in a way that its actual investment is closer to the best level of investment. This is to make sure that only projects that have a positive Net Present Value (NPV) are undertaken and those with negative NPV are shunned (Biddle et al., 2009). Any deviation from this optimal investment is termed investment inefficiency, which has two major forms, namely underinvestment and overinvestment (Richardson, 2006).

Underinvestment occurs when firms do not utilise positive NPV opportunities, which is usually a result of the information asymmetry between the managers and external financiers. The pecking order theory (Myers and Majluf, 1984) asserts that external investors, who fear adverse selection, can end up underpricing new equity issues, and this will deter external financing of good projects by managers. This outcome is obvious in financially strained firms, where the price of external funds is a complete deterrent. According to Cheng et al. (2013), these limitations can encourage a firm to give up value adding initiatives.

This research is organized in the following way. Section 2 analyses the literature and formulating the research hypotheses, Section 3 presents the research design, data and variables measurement, as well as empirical models. Furthermore, the primary empirical results are discussed in Section 4, and the further analysis and robustness testing are provided in Section 5. Lastly, Section 6 is the conclusion and highlights the implications of the study.

2.Literature review and hypotheses development

2.1.The Saudi Institutional Context

Saudi Arabia is a unique context with concentrated political power, high levels of ownership concentration and high family participation in corporate governance. These institutional characteristics affect the corporate decision-making processes and potentially have serious economic implications for investments based on DT.

First, the political system of Saudi Arabia is highly centralized in which economic and regulatory powers are concentrated among a limited section of political elites (Hertog, 2017). In such a centralized system, firms can use relational networks and political proximity to gain access to resources, contracts and financing (Faccio, 2006; Johnson & Mitton, 2003). This institutional structure can undermine the discipline of markets and change the incentives of the managers, especially in environments where political connections coincide with business ownership.

Second, the distribution of ownership structures in Saudi listed firms is very concentrated, often being held by founding families, institutional blockholders or government-related firms (Claessens et al., 2002; La Porta et al., 1999). While concentrated ownership may reduce traditional Type I agency conflicts between managers and dispersed shareholders (Jensen & Meckling, 1976), it may increase Type II agency problems which stem between controlling shareholders and minority shareholders (Shleifer & Vishny, 1997; Villalonga & Amit, 2006).

The second value of the current study is that it explores the moderating role of the financial constraints on the relationship between DT and investment inefficiency. Despite the fact that previous studies carried out in Saudi Arabia (e.g., Alsahlawi et al., 2021) have integrated financial limitations in alternative analytical frameworks, for instance environmental sustainability disclosure, it has not been previously explored how and whether financing frictions influence the effect of DT on investment behaviour of firms. The current study contributes to the literature because it empirically proves that the impact of DT on investment inefficiency depends on the extent to which firms encounter financial constraints. This is because it highlights the fact that financial constraints are a critical boundary factor when understanding the actual implications of technological advances in developing economies.

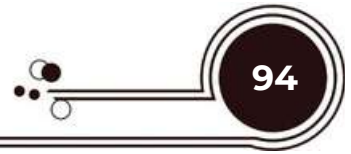
The third potential contribution of the study is that it applies to Saudi Arabian policymakers and practitioners. With the Kingdom moving towards realizing the objectives of the government's Vision 2030 economic blueprint, the concept of DT is being presented as one of the key competitiveness and drivers of economic diversification. The analysis of the effects of DT on investment inefficiency and the **moderating** effect of financial constraints conducted by this study has informative implications. These can be used in policies to promote market efficiency, technological adoption, and effective capital allocation.

This research is organized in the following way. Section 2 analyses the literature and formulating the research hypotheses, Section 3 presents the research design, data and variables measurement, as well as empirical models. Furthermore, the primary empirical results are discussed in Section 4, and the further analysis and robustness testing are provided in Section 5. Lastly, Section 6 is the conclusion and highlights the implications of the study.

between digitalization and financial constraints to influence the investment behaviour of the firms in Saudi Arabia.

This paper makes three important contributions. First, the factors that determine investment efficiency have been widely investigated in previous research. Specifically, this focuses on the influence of the rules of governance, shareholding structure, quality of financial reporting, tax avoidance, market risk disclosures, and macro-financial environments on the efficiency of resource allocation by firms (Biddle et al., 2009; Chen et al., 2011; Al-Hadi et al., 2017; Asiri, 2020). Non-financial disclosures are also one of the most important determinants, which have been given more attention by scholars in Saudi Arabia when institutional frameworks are changing within the context of Vision 2030. As an example, Alobaid et al. (2024) demonstrate that either the corporate social responsibility (CSR) disclosure increases the efficiency of the investment, as it decreases the under- and overinvestment, and Kouaib (2022) indicates that also, the disclosure of the environmental, social, and governance (ESG) contributes to the increase in investment efficiency. The results highlight that non-financial disclosure may be used as a compensatory tool to address the information asymmetry problem in emerging markets like Saudi Arabia, and also to discipline the behaviour of business managers. Nonetheless, CSR and ESG have been identified as relevant sources of efficiency; no previous research has examined the role of DT, despite its growing role in determining the strategy and resource distribution of firms.

This research is the first to explore the connection between DT and investment inefficiency in Saudi Arabia by concentrating on DT. By so doing, it extends the range of determinants of investment efficiency beyond the conventional governance and disclosure variables and offers new evidence about the impacts of technological disruption to capital allocation in an emerging market in the midst of a rapid change in the digital and economic landscape.



This research has been prompted by the fact that despite the increasing yet inconclusive debate on the effects of DT on influencing the investment behaviour of firms, most studies recognize that DT brings efficiency, innovation, and competitiveness. Recent studies have also found that it can cause risks in terms of resource misallocation, greater volatility, and greater discretion of managers (Zhang, 2023; Xu et al., 2023). Simultaneously, the research on investment inefficiency has concentrated to a great extent on the issue of governance, quality of financial reporting (Biddle et al., 2009; Al-Hadi et al., 2017; Asiri, 2020), yet comparatively little consideration has been given to the disruptive nature of digital technologies. Additionally, the issue of financial constraints is a characteristic of emerging markets and, in particular, Saudi Arabia, where businesses are highly sensitive to investment-cash flow and have little access to external financing (Guizani and Ajmi, 2021; Guizani, 2021). These limitations might have complicated outcomes with digitalization, and they can simultaneously increase inefficiency due to the lack of flexibility, or they can restrain managers and their excesses in investments. However, the connection between DT and the investment inefficiency alongside the contribution of financial constraints in Saudi Arabia involves an opportunity to build on extant theories and fill a significant gap in the literature.

The initial sample of firms listed on the Saudi Stock Exchange between 2019 and 2022 is used as the foundation of the empirical analysis. The inefficiency of investment is identified as the difference between the actual investment and the projected investment based on the firm-specific growth opportunities (Biddle et al., 2009). Conversely, DT is represented by a systematic manual content analysis of yearly reports that define the extent to which firms are operating in four fundamental areas of technology, such as cloud computing. These findings prove that DT has a positive and significant relationship with investment inefficiency, and financial constraints moderate this relationship by attenuating it. Notably, the results are sound when utilizing other metrics of both DT and investment inefficiency, and when techniques to correct possible endogeneity issues with propensity score matching (PSM) and the Heckman two-step are applied. Combined, the evidence points to the intricate nature of the interaction

In line with these changes, DT has emerged as a very influential factor to redefine firm behaviour. DT denotes the adoption of block chain, artificial intelligence, big data and cloud computing, into the organizational process, which essentially changes the model of the business, the creation of value, and decision-making (Gurbaxani and Dunkle, 2019; Vial, 2021). Operational efficiency, innovation, and competitiveness have been linked to DT globally (Mithas et al., 2011; Bharadwaj et al., 2013). Nevertheless, new results point out that DT also could produce risks and distortions. An example is that large-scale digital projects need intensive capital investments, increase operational risk, and increase managerial discretion, which can lead to more inefficient investments (Zhang, 2023; Xu et al., 2023). Research suggests that digital technologies can help firms to improve their capacity, but at the same time, they can lead to increased opportunism at the managerial level and misallocation of resources, especially in less developed economies (Chen and Srinivasan, 2024).

In Saudi Arabia, DT is entrenched in the government's Vision 2030 blueprint that aims to diversify the economy, no longer relying so much on the oil/petroleum industry, and encourage economic innovations. For example, the Kingdom has extensively invested in digital infrastructure, data projects, and the use of AI, which makes it one of the regional leaders in the field of digitalization (Masoud & Basahel, 2023; Asiri, 2025). The empirical evidence proves that the material consequences of the DT for the financial policies of Saudi firms exist: Asiri (2025) reveals that DT leads to accumulating the volume of corporate cash as firms create reserves to absorb the risks and costs of adoption of technology. Meanwhile Bajaher and Asiri (2025) demonstrate that DT improves the environmental, social, and governance results by contributing to the development of sustainable business practices. These results underscore the fact that in the Saudi context, DT not only alters functional frameworks; it also has an impact on financial strategies and investment behaviour. With the magnitude of technological adoption and the continuous capital market reforms, it is timely and critical to know how technology will affect the efficiency of investments.

1.Introduction

It is evident that firm value creation and long-term competitiveness lie in investment efficiency. In principle, firms will invest in projects with positive net present value (NPV), since they will guarantee that the resources will be invested in the projects that maximize shareholder wealth (Modigliani and Miller, 1958; Myers and Majluf, 1984). In reality, however, market imperfections like information asymmetry, financing frictions and agency problems cause managers to make decisions that are less than ideal, resulting in the lack of efficient investment according to Jensen and Meckling (1976) and Jensen (1986). Two types of investment inefficiency exist: firstly, underinvestment where firms do not choose to take up a profitable opportunity because of financial constraints or managerial risk aversion; and secondly, overinvestment where managers take up projects with a negative NPV, usually because of empire-building or the availability of free cash flows (Stulz, 1990; Biddle et al., 2009). These studies discovered that such inefficiencies are always expensive since they distort the allocation of capital, impede growth, and increase agency costs (Al-Hadi et al., 2017; Asiri et al., 2020).

Firms in emerging markets are particularly susceptible to inefficiency because they have poor institutional settings, ownership concentration, and are more exposed to external shocks (Al-Hadi et al., 2017). The experience of the GCC economies indicates that information asymmetry can be alleviated through transparency measures (e.g., risk disclosures), which can increase the efficiency and safety of investments (Al-Hadi et al., 2017). Likewise, the studies of United States and foreign businesses demonstrate that corporate tax avoidance, ownership system, together with quality of financial reports, involve factors that largely determine investment performance (Chen et al., 2011; Asiri et al., 2020). On this issue, the question of investment inefficiency is a major corporate finance issue especially in a country like Saudi Arabia, where financial markets are still developing and firms are operating under conditions of resources limitations as well as changes to the way that institutions do business.

Abstract

The present research investigates the issue of Digital Transformation (DT) and its contribution to investment inefficiency, mainly concentrating on the role of financial constraint moderation in Saudi Arabia. Using a sample of Saudi Stock Exchange listed firms from 2019 to 2022, we find that DT is closely related to the inefficiency of investments, that is, in parallel with the advances in firms' technology, leading to the misallocation of resources by abusing and under-investing in resources. Interestingly, the analysis of interaction reveals that financial constraints undermine this relationship, and implied here is that financing friction is a conditioning situation that inhibits overlaying managerial discretion in digital business. The results and findings have significant implications for managers, investors and policymakers. For instance, the findings highlight to managers that digital investments need to be critically considered in order to prevent the ineffective allocation of capital. To investors, the research points out that digital strategies can be crucial in the scrutiny as an indicator of both innovation and inefficiency. Referring to policymakers, the main implication of this evidence is that, to improve efficiency in capital allocation, it is important to strengthen disclosure in connection to digital initiatives and increase financial instruments, which are specific to technological adoption.

Keywords: investment inefficiency, investment efficiency, digital transformation, financial constraints

Does Digital Transformation Increase Investment Inefficiency in the Saudi Stock Market? The Moderating Role of Financial Constraints

Mohammed Asiri

College of Business. King Khalid University

Zhang, Z., & Yuan, K. (2018). Practical statistical power analysis using Webpower and R. Granger, IN: ISDSA Press [Google Scholar].

Saad, M., Lutfi, A., Almaiah, M. A., Alshira'h, A. F., Alshirah, M. H., Alqudah, H., Alkhassawneh, A. L., Alsayouf, A., Alrawad, M., & Abdelmaksoud, O. (2022). Assessing the intention to adopt cloud accounting during COVID-19. *Electronics*, 11(24), 4092.

Saygili, A. T., Saygili, E., & Taran, A. (2021). The effects of corporate governance practices on firm-level financial performance: evidence from Borsa Istanbul Xkury companies. *Business Economics and Management (JBEM)*, 22(4), 884–904.

Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J.-H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. *European Journal of Marketing*, 53(11), 2322–2347.

Singh, K., & Pillai, D. (2022). Corporate governance in small and medium enterprises: a review. *Corporate Governance: The International Journal of Business in Society*, 22(1), 23–41.

Uyar, A., Gungormus, A. H., & Kuzey, C. (2017). Impact of the accounting information system on corporate governance: Evidence from Turkish non-listed companies. *Australasian Accounting, Business and Finance Journal*, 11(1).

Wang, X., & Zhu, W. (2025). Exploring the Relationship Between Accounting Information System (AIS) Quality and Corporate Sustainability Performance Using the IS Success Model. *Sustainability* (2071-1050), 17(4).

Wilkin, C. L., Couchman, P. K., Sohal, A., & Zutshi, A. (2016). Exploring differences between smaller and large organizations' corporate governance of information technology. *International Journal of Accounting Information Systems*, 22, 6–25.

Neiroukh, N., & Çağlar, D. (2025). Information Systems Quality and Corporate Sustainability: Unpacking the Interplay of Financial Reporting, Artificial Intelligence, and Green Corporate Governance. *Systems*, 13(7), 537.

O'Leary, D. E. (2023). Digitization, digitalization, and digital transformation in accounting, electronic commerce, and supply chains. In *Intelligent Systems in Accounting, Finance and Management* (Vol. 30, Issue 2, pp. 101–110). Wiley Online Library.

Perdana, A., Wang, T., & Arifin, S. (2024). Artificial Intelligence in Accounting: Ethical Challenges and Legal Perspectives. In *Digital Transformation in Accounting and Auditing: Navigating Technological Advances for the Future* (pp. 321–345). Springer.

Quintero, J. M. M., Pedroche, E. G., & de la Garza Ramos, M. I. (2009). Influence of the implementation factors in the information systems quality for the user satisfaction. *Journal of Information Systems and Technology Management*, 6(1), 25–44.

Rajan, C. A., & Baral, R. (2015). Adoption of ERP system: An empirical study of factors influencing the usage of ERP and its impact on end user. *IIMB Management Review*, 27(2), 105–117.

Rane, J., Kaya, O., Mallick, S. K., & Rane, N. L. (2024). Influence of digitalization on business and management: A review on artificial intelligence, blockchain, big data analytics, cloud computing, and internet of things. *Generative Artificial Intelligence in Agriculture, Education, and Business*, 1–26.

Saad, M. (2023). The influence of accounting information system adoption on business performance amid COVID-19. *Computers in Human Behavior Reports*, 10, 100286.

Lutfi, A., Alkelani, S. N., Alqudah, H., Alshira'h, A. F., Alshirah, M. H., Almaiah, M. A., Alsyounf, A., Alrawad, M., Montash, A., & Abdelmaksoud, O. (2022). The role of E-accounting adoption on business performance: The moderating role of COVID-19. *Journal of Risk and Financial Management*, 15(12), 617.

Mohamed, Z. A. I. (2025). The Impact of Artificial Intelligence on Digital Accounting in the Kingdom of Saudi Arabia. In *Generative AI in Creative Industries* (pp. 117–128). Springer.

Morshed, A., & Khrais, L. T. (2025). Cybersecurity in digital accounting systems: Challenges and solutions in the arab gulf region. *Journal of Risk and Financial Management*, 18(1), 41.

Mujalli, A. (2024a). Factors Affecting the Implementation of Risk-Based Internal Auditing. *Journal of Risk and Financial Management*, 17(5), 196.

Mujalli, A. (2024b). The influence of E-auditing adoption on internal audit department performance amid COVID-19 in Saudi Arabia. *Cogent Business & Management*, 11(1), 2295608.

Mujalli, A., Wani, M. J. G., Almgrashi, A., Khormi, T., & Qahtani, M. (2024). Investigating the factors affecting the adoption of Cloud Accounting in Saudi Arabia's Small and Medium-Sized Enterprises (SMEs). *Journal of Open Innovation: Technology, Market, and Complexity*, 101314.

Myovella, G., Karacuka, M., & Haucap, J. (2020). Digitalization and economic growth: A comparative analysis of Sub-Saharan Africa and OECD economies. *Telecommunications Policy*, 44(2), 101856.

Negash, S., Ryan, T., & Igbaria, M. (2003). Quality and effectiveness in web-based customer support systems. *Information & Management*, 40(8), 757–768.

Huynh, Q. L. (2015). The mutual relationship between corporate governance and management accounting: which occurs first? *American Journal of Applied Sciences*, 12(6), 403.

Isaac, L., Lawal, M., & Okoli, T. (2015). A systematic review of budgeting and budgetary control in government owned organizations. *Research Journal of Finance and Accounting*, 6(6), 1–11.

Kasasbeh, F. I. O. (2017). Impact of corporate governance on the effectiveness of accounting information system in Jordanian industrial companies. *International Business Research*, 10(10), 1–9.

Klymenko, O., Lillebrygfjeld Halse, L., & Jæger, B. (2021). The enabling role of digital technologies in sustainability accounting: Findings from Norwegian manufacturing companies. *Systems*, 9(2), 33.

Lawal, A., Mohamed, R., Abdalla, H., Elkelish, W., & Lasyoud, A. (2022). The role of accounting information systems in firms' performance during the COVID-19 pandemic. *Journal of Governance and Regulation*, 11(1), 45–54.

Lin, H.-Y., Hsu, P.-Y., & Ting, P.-H. (2006). ERP systems success: An integration of IS success model and balanced scorecard. *Journal of Research and Practice in Information Technology*, 38(3), 215–228.

Lutfi, A., Al-Okaily, M., Alsyoud, A., & Alrawad, M. (2022). Evaluating the D&M IS success model in the context of accounting information system and sustainable decision making. *Sustainability*, 14(13), 8120.

Dehghanpouri, H., Soltani, Z., & Rostamzadeh, R. (2020). The impact of trust, privacy and quality of service on the success of E-CRM: the mediating role of customer satisfaction. *Journal of Business & Industrial Marketing*, 35(11), 1831–1847.

DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. *Information Systems Research*, 3(1), 60–95.

DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: a ten-year update. *Journal of Management Information Systems*, 19(4), 9–30.

Diavastis, I. E., Chrysafis, K. A., & Papadopoulou, G. C. (2024). Determinants of Accounting Information Systems Success: The Case of the Greek Hotel Industry. *International Journal of Financial Studies*, 12(2), 42.

Fatima, S., Ishtiaq, M., & Javed, A. (2021). Impact of accounting information system on corporate governance: evidence from Pakistani textile sector. *International Journal of Law and Management*, 63(4), 431–442.

Grabski, S. V, Leech, S. A., & Schmidt, P. J. (2011). A review of ERP research: A future agenda for accounting information systems. *Journal of Information Systems*, 25(1), 37–78.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24.

Hsu, P.-F., Yen, H. R., & Chung, J.-C. (2015). Assessing ERP post-implementation success at the individual level: Revisiting the role of service quality. *Information & Management*, 52(8), 925–942.

Almaqtari, F. A., Farhan, N. H. S., Al-Hattami, H. M., & Elsheikh, T. (2023). The moderating role of information technology governance in the relationship between board characteristics and continuity management during the Covid-19 pandemic in an emerging economy. *Humanities and Social Sciences Communications*, 10(1), 1–16.

Almgrashi, A., & Mujalli, A. (2024). The Influence of Sustainable Risk Management on the Implementation of Risk-Based Internal Auditing. *Sustainability* (2071-1050), 16(19).

Alsmadi, A. A., Oudat, M. S., & Hasan, H. (2020). Islamic finance value versus conventional finance, dynamic equilibrium relationships analysis with macroeconomic variables in the jordanian economy: An ardl approach. *Change Management*, 130(1), 1–14.

Alzoubi, A. (2011). The effectiveness of the accounting information system under the enterprise resources planning (ERP). *Research Journal of Finance and Accounting*, 2(11), 10–19.

Brandas, C., Megan, O., & Didraga, O. (2015). Global perspectives on accounting information systems: mobile and cloud approach. *Procedia Economics and Finance*, 20, 88–93.

Coche, E., Kolk, A., & Ocelík, V. (2024). Unravelling cross-country regulatory intricacies of data governance: the relevance of legal insights for digitalization and international business. *Journal of International Business Policy*, 7(1), 112–127.

Cullen, A. J., & Taylor, M. (2009). Critical success factors for B2B e-commerce use within the UK NHS pharmaceutical supply chain. *International Journal of Operations & Production Management*, 29(11), 1156–1185.

Al-Tae, S. H. H., & Flayyih, H. H. (2023). Impact of the electronic internal auditing based on IT governance to reduce auditing risk. *Corporate Governance and Organizational Behavior Review*, 7(1), 94–100.

Al-Hattami, H. M., Almaqtari, F. A., Abdullah, A. A. H., & Al-Adwan, A. S. (2024). Digital accounting system and its effect on corporate governance: An empirical investigation. *Strategic Change*, 33(3), 151–167.

Al-Hattami, H. M., Battour, M., & Al-Bukhrani, M. A. (2025). Digital Accounting Systems in SMEs: Do They Influence Marketing Performance? A Moderated Mediation Analysis. *Strategic Change*, 34(5), 747-758

Al Maqtari, F. A., Farhan, N. H., Al-Hattami, H. M., & Khalid, A. S. D. (2020). Impact of country-level corporate governance on entrepreneurial conditions. *Cogent Business & Management*, 7(1), 1797261.

Almagrashi, A., Mujalli, A., Khan, T., & Attia, O. (2023). Factors determining internal auditors' behavioral intention to use computer-assisted auditing techniques: an extension of the UTAUT model and an empirical study. *Future Business Journal*, 9(1), 74.

Almaqtari, F. A., Farhan, N. H. S., Al-Hattami, H. M., & Elsheikh, T. (2023). The moderating role of information technology governance in the relationship between board characteristics and continuity management during the Covid-19 pandemic in an emerging economy. *Humanities and Social Sciences Communications*, 10(1), 1–16.

Almagrashi, A., & Mujalli, A. (2024). The Influence of Sustainable Risk Management on the Implementation of Risk-Based Internal Auditing. *Sustainability* (2071-1050), 16(19).

References

- Achim, M.-V., Borlea, S.-N., & Mare, C. (2016). Corporate governance and business performance: Evidence for the Romanian economy. *Journal of Business Economics and Management*, 17(3), 458–474.
- Al-Attar, K. (2021). The effect of accounting information system on corporate governance. *Accounting*, 7(1), 99–110.
- Al-Dalabih, F. A. N. (2018). The impact of the use of accounting information systems on the quality of financial data. *International Business Research*, 11(5), 143–158.
- Al-Fatlawi, Q. A., Al Farttoosi, D. S., & Almagtome, A. H. (2021). Accounting information security and it governance under cobit 5 framework: A case study. *Webology*, 18(02), 294–310.
- Al-Hattami, H. M. (2025). The Impact of Digital Accounting Systems on Financial Performance in the Banking Sector: Advancements in the Digital Era. *International Journal of Intelligent Information Technologies (IJIIT)*, 21(1), 1–19.
- Al-Hattami, H. M., & Kabra, J. D. (2024). The influence of accounting information system on management control effectiveness: The perspective of SMEs in Yemen. *Information Development*, 40(1), 75–93.
- Al-Okaily, M., Alghazzawi, R., Alkhwalidi, A. F., & Al-Okaily, A. (2022). The effect of digital accounting systems on the decision-making quality in the banking industry sector: a mediated-moderated model. *Global Knowledge, Memory and Communication*, 72(8/9), 882–901.

From a practical standpoint, the findings demonstrate that for government bodies, policymakers, consultants, DAS providers, and business owners, there are significant implications. The strong relationship identified between DAS utilization and CG underscores how effective DAS implementation can improve organizational processes, competitiveness, productivity, data accuracy, governance efficiency, and overall business success. From a policy perspective, the results suggest that governments and regulatory agencies play a crucial role in helping SMEs maximize the benefits of DAS. This can be achieved by establishing clear guidelines and standards for DAS adoption, offering specialized training programs for employees and users, promoting investments in technological infrastructure, and providing incentives to encourage successful implementation. Through these initiatives, authorities can ensure that DAS adoption supports firm-level growth and sustainability while simultaneously strengthening the transparency, efficiency, and integrity of CG across the SME sector.

It is crucial to recognize the study's limitations and their potential influence on the outcomes. The research employed CG as the dependent variable with its components assessed according to previous studies. Furthermore, these items were evaluated by specialists in the same domain (Al-Attar, 2021; Zayed et al., 2022). Nonetheless, certain limits must be acknowledged. The validity and reliability of the CG measurement might raise questions, despite the fact that it is based on earlier studies and assessed by experts. The employment of a particular measurement technique for CG and items sourced from previous studies may restrict the generalizability of the results. The findings may be more relevant to scenarios similar to those examined in the listed sources, and prudence should be applied when generalizing findings to other settings. The research involved was restricted to SMEs. Consequently, the research sample may be augmented by analyzing companies from additional sectors. The research model may potentially be enhanced by include additional characteristics believed to affect CG, including dedication from management, and social impact. Furthermore, the present paper was confined to a sample from a developing nation; subsequent research may explore the same topic using samples from various nations with diverse organizational and cultural features and contexts.

7. Conclusion, Implications, Limitations and Future Studies

In conclusion, the importance of DASs lies in their ability to enhance CG. Nevertheless, in spite of this significance, the application of DAS in improving CG has still not been adequately investigated. It is often assumed that DASs inherently improve CG, a simplification that overlooks the influence of diverse factors and their interrelationships within the CG process. This study aimed to statistically develop and validate a model explaining how DAS quality dimensions—namely SysQ, IQ, and SerQ—affect user satisfaction, which in turn influences CG. Data were collected from 353 managers, accountants, and department heads working in Saudi Arabian SMEs, particularly those proficient in the use and implementation of DAS. Notably, this study emphasizes the operational and transactional capabilities of DAS and their role in strengthening CG. The findings hold substantial significance for extending the DeLone and McLean (2003) Information Systems Success Model (ISSM) and contribute to a deeper understanding of the factors affecting CG. The work provided here provides a number of significant theoretical contributions to the existing body of literature on DAS utilization. It extends existing studies on DAS adoption, user satisfaction, and their combined impact on CG within a developing country context, specifically Saudi Arabia.

To the best of the author's knowledge, this is the first empirical and theoretical investigation analyzing the factors influencing DAS user satisfaction and its subsequent influence on CG. The literature review points out that, in spite of extensive research on various technological innovations, limited attention has been given to DAS in relation to CG. The study enriches current knowledge by introducing a comprehensive conceptual model based on the DeLone and McLean ISSM framework. This model emphasizes the influence of different quality dimensions of DAS on the satisfaction of user, as well as their effects and benefits for CG. Consequently, the predictive and explanatory power of the ISSM has been enhanced, providing valuable insights for both academics and practitioners.

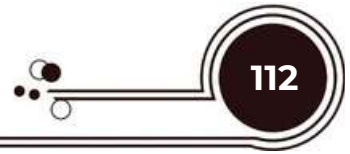
Al-Attar (2021) similarly associated DAS-driven user satisfaction with aspects of CG, including control and credibility, across Saudi companies. The findings of this research strongly suggest that in Saudi Arabia, where governance structures are often inadequate, content consumers improve CG by promoting ethical financial practices and fostering stakeholder confidence. Neiroukh and Çağlar (2025) substantiate this by demonstrating that user happiness with high-quality information systems greatly influences sustainability results, suggesting a possible intersection with CG advantages.

In the context of DASS in Saudi Arabian SMEs, the model proposed by DeLone and McLean (2003) is validated by the statistically significant positive influence that IQ, SysQ, and SerQ, and system utilization have on user satisfaction. The level of user satisfaction with the DAS is significantly impacted by a number of important elements, including the usability and performance attributes of the IQ and SysQ, that is produced, the usefulness of the system, the quality of service and support that is offered to users, and the degree to which the system is utilized. Based on the results of the multiple regression analysis, it was determined that the predictors are responsible for a substantial portion of the general variance in DAS user satisfaction. This finding validates both the predictive power of the model and the selection of variables. As a further point of interest, the outcomes of the existing study suggest that the effectiveness of CG is dependent on a number of elements performing at the same time. When conducting an analysis of the elements that determine DAS user satisfaction, this approach underlines the fact that - in addition to the components of DeLone and McLean's ISSM - it is essential to investigate the attributes of the information system, the variables that are contingent on the situation, and the main attributes of the users.

H2, which asserts that system quality significantly influences DAS user satisfaction, has been supported by numerous studies. In the hotel industry, Diavastis et al. (2024) identified system quality as a critical determinant of DAS success, highlighting its importance in operational efficiency. This was further substantiated by Mujalli (2024b) in the Saudi Arabian context, where the integrity of the system influenced the use of e-auditing, thereby improving the performance of the internal audit. The reliability and efficiency of DAS systems in Saudi Arabia likely alleviated the constraints of manual accounting in this study, thereby increasing user satisfaction and, as a result, the effectiveness of CG. Saad (2023) reiterates this discovery, asserting that system quality considerably influences the adoption of DAS and business performance in Sudanese institutions, indicating a universal relevance in a variety of contexts.

The affirmation of H3, which asserts that service quality significantly influences DAS user satisfaction, underscores the critical role of support services, training, and maintenance in DAS adoption. Diavastis et al. (2024) identified service quality as a crucial determinant of DAS, user satisfaction, hence improving operational efficiency. Al-Al-Hattami et al. (2024) similarly indicated that service quality, including user assistance, favorably impacts CG enhancing system usability. The results of this research augment existing findings by illustrating that, despite infrastructure difficulties in Saudi Arabia, good service quality enhances users trust, ultimately reinforcing CG via improved system utilisation. (Lutfi, Al-Okaily, et al., 2022) observed that service quality indirectly facilitates sustainable decision-making, offering a more comprehensive understanding of this connection.

Ultimately, H4, which confirms that DAS user satisfaction has a significant impact on CG, which highlights the mediating function of user satisfaction in connecting DAS quality parameters to governance results. Al-Hattami et al. (2024) discovered that contented DAS users enhance CG by fostering openness and mitigating manipulative behaviors, a conclusion corroborated in this study.



6. Discussion

The purpose of this study was to investigate the impact that DAS has on CG activities in Saudi Arabian organizations. The findings of this study contribute to a better understanding of the DAS components and the influence that they have on CG. Based on the findings of the empirical research (see Tables 6 and 7), each and every one of our hypotheses was found to be of tremendous significance. The empirical findings of this study give strong support for all four hypotheses, indicating the enormous impact that user satisfaction has on CG H4 as well as the significant influence that IQ, SysQ, and SerQ have on the level of satisfaction that users have with DAS. These findings are in line with and expand upon the results of the DeLone and McLean (D&M) Information Systems Success Model (2003). They offer vital insights into the dynamics of DAS adoption in Saudi Arabia, which is an area that has been understudied in less developed countries in the past.

The confirmation of H1, which suggests that the quality of information has a significant impact on the contentment of DAS users, is in accordance with previous research. In the Greek hotel industry, Diavastis et al. (2024) found that high-quality financial data improves user satisfaction by enabling informed decision-making, a conclusion that is also supported by this study. In the same vein, Lutfi, Al-Okaily et al. (2022) discovered that the quality of information has a substantial impact on the use of DAS thereby facilitating sustainable decision-making in organizations. The positive impact of information quality on user satisfaction in the Saudi Arabia context, where financial data reliability is frequently impeded by manual processes, emphasizes its role in enhancing CG through transparent reporting and fostering trust (Al-Hattami et al., 2024). This is consistent with the findings of Neiroukh and Çağlar (2025), who substantiated that the quality of information systems facilitates the accurate reporting of financial data. This in turn improves the sustainability of corporations and implies there is a parallel mechanism for governance outcomes.

5.6. Estimation of the model's robustness

This study assessed the explanatory power (R^2) of the suggested research framework. R^2 tells one how well the model fits the data. A value near to 1 means that the framework fits better, while a score of 0 means that it does not take into account any changes in the dependent variable (Hair et al., 2019). It is necessary to understand actual events and make predictions in order to judge the outcomes of regression models. The R^2 values for DASUS and CG were 0.461 and 0.397, respectively, which means that these two variables explained a certain proportion of the overall variance in the sample. Consequently, the exogenous variables represented 46.1% of the variation in DASUS and 39.7% in CG. So, the framework does a decent job of explaining these results. The researchers next looked at how well the predictions worked (Q2). A Q2 score beyond zero indicates significant predictive significance (Liébana-Cabanillas et al., 2017; Shmueli et al., 2019). A Q2 score of 0.324 for DASUS and 0.231 for CG, respectively, showed that the framework is quite good at making predictions. Another way to measure how well a model works is to look at its goodness of fit (GoF). Hair et al. (2019) devised a way to use standardized root mean square residuals (SRMR) to check how well the research framework fits. The SRMR value was 0.053 and this means it is below the recommended threshold of 0.08, indicating an acceptable model fit.

5.5. SEM determination

To test the hypothesized connections between the model's components, a structural equation modeling (SEM) was run in SmartPLS 4. It examines the effect of several independent variables on multiple dependent variables. For the purpose of analyzing the outcomes of the study framework, the researcher initially evaluated the regression coefficient (β), and subsequently computed the coefficient of determination (R^2) to further examine the results.

According to the study results, the analysis revealed that DASUS is positively and significantly associated with IQ ($\beta = 0.102$, $p < 0.05$), SYSQ ($\beta = 0.142$, $p < 0.01$), and SRVQ ($\beta = 0.590$, $p < 0.001$). Consequently, the outputs confirmed the proposed hypotheses H1, H2, and H3 (see Table 4). Once more, it is important to state here that DASUS exerts a favorable influence on CG ($\beta = 0.630$, $p < 0.001$), thus giving support for hypothesis H4. Figure 3 displays the outcomes of the significance.

Table 7. Evaluation of the path relationships

Hypotheses	Relationships	B	t-values	p-values	95 % CIs	Supported
H1	IQ -> DASUS	0.102	2.362	0.018	[0.022, 0.188]	Yes
H2	SYSQ -> DASUS	0.142	2.755	0.006	[0.048, 0.248]	Yes
H3	SRVQ -> DASUS	0.590	11.293	0.000	[0.482, 0.683]	Yes
H4	DASUS -> CG	0.630	12.845	0.000	[0.520, 0.716]	Yes

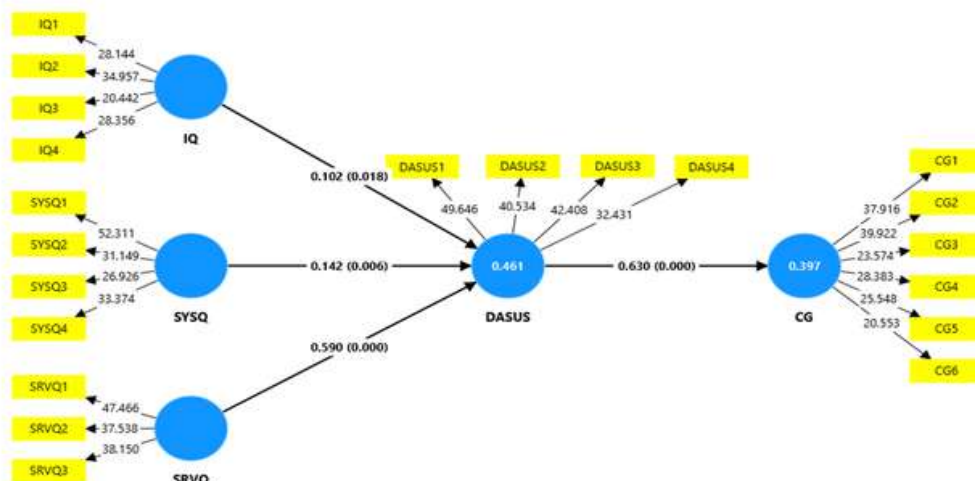


Figure 3: SEM results

Table 6: Measurement model estimation.

Variables	Indicators	λ	α	CR	AVE
IQ	IQ1	0.868	0.855	0.902	0.697
	IQ2	0.863			
	IQ3	0.774			
	IQ4	0.831			
SYSQ	SYSQ1	0.876	0.856	0.902	0.697
	SYSQ2	0.816			
	SYSQ3	0.805			
	SYSQ4	0.842			
SRVQ	SRVQ1	0.864	0.804	0.885	0.719
	SRVQ2	0.846			
	SRVQ3	0.833			
DASUS	DASUS1	0.869	0.867	0.909	0.715
	DASUS2	0.851			
	DASUS3	0.852			
	DASUS4	0.808			
CG	CG1	0.822	0.863	0.898	0.596
	CG2	0.822			
	CG3	0.764			
	CG4	0.773			
	CG5	0.740			
	CG6	0.703			

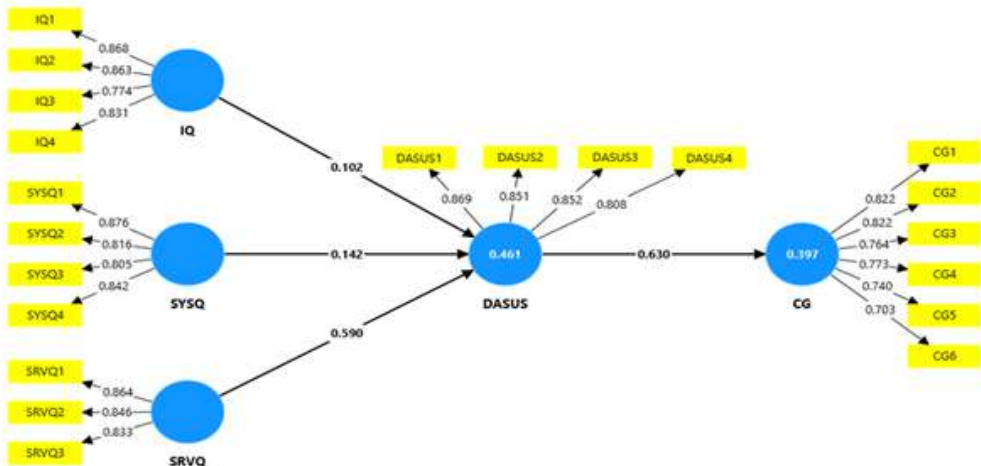


Figure 2: Measurement model estimation

Table 5: Discriminant validity and VIF values

Fornell-Larcker Criterion	CG	DASUS	IQ	SRVQ	SYSQ	Relationships	VIF
CG	0.772					IQ → DASUS	1.116
DASUS	0.630	0.845				SRVQ → DASUS	1.117
IQ	0.276	0.260	0.835			SYSQ → DASUS	1.184
SRVQ	0.640	0.653	0.194	0.848		DASUS → CG	1.000
SYSQ	0.400	0.353	0.304	0.306	0.835		
HTMT scores	CG	DASUS	IQ	SRVQ	SYSQ		
CG							
DASUS	0.728						
IQ	0.321	0.297					
SRVQ	0.768	0.781	0.231				
SYSQ	0.464	0.406	0.355	0.366			

Note. Square roots of the AVEs are represented by bold numbers

5.4. Measurement model evaluation

To establish the measuring model's overall accuracy and dependability, the researchers conducted an assessment. In order to do this, the researcher collected extensive quality indices from many perspectives pertaining to the components that had an impact, such as factor loading (λ), Cronbach's alpha (α), composite reliability (CR), average variance extracted (AVE), and Heterotrait-Monotrait Ratio (HTMT). In order to ensure the constructs' consistency and reliability, the λ , α , and CR values must be more than 0.70 (Hair et al., 2019). A minimal cutoff value of 0.70 is satisfied by the λ , α , and CR outcomes (for reference, see Figure 2). Also, the AVE was shown to be able to assess the convergent validity of the studied components. Validity can only be improved with AVE values that are more than 0.50 (Hair et al., 2019; Shmueli et al., 2019; Mujalli, 2024a). Convergent validity is confirmed by the study's results, which illustrate that all AVEs fulfil the 0.5 requirement. Refer to Table 6 for more information.

5.3. Common method bias (CMB)

According to Spector (2006), there are situations when CMB presents difficulties in the analysis of self-reported data. Consequently, CMB must be handled with extreme caution. It influences the study's validity and the structural relationship (MacKenzie & Podsakoff, 2012). Statistical control and procedural design are two methods that may lessen the likelihood of CMB in research. The questionnaire was pilot tested before the final data collecting stage; its procedural design allowed respondents to stay anonymous with ease, the questionnaire was concise, and socioeconomic questions were placed at the very end. The goal of instituting secrecy laws was to promote an environment of trust and to solicit genuine replies.

On the other hand, two statistical approaches were used to control CMB in the research. This procedure began with confirming the CMB issue using principal component analysis (PCA), often known as Harman's one-factor test. Based on previous research (MacKenzie & Podsakoff, 2012; Podsakoff et al., 2012), this test found that 36.648% of the total variation could be explained, which is lower than the 50% requirement. Step two included conducting a multicollinearity analysis to ascertain the level of correlation between the independent variables. Multicollinearity is present when the variance inflation factor (VIF) score is more than 5.0 (Kock, 2015). All of the VIF scores were within the acceptable range, as shown in Table 5. It was therefore proposed that the predictors' ability to reliably predict the dependent construct was unaffected by multicollinearity. According to the results, CMB is not a problem. Then, we checked for discriminant validity using two popular approaches: HTMT and the Fornell and Larcker criterion (Fornell & Larcker, 1981; Roy & Khatun, 2023). The HTMT ratio value should not exceed 0.85, as stated by Kline (2023). This study does not have a discriminant validity problem since all of the HTMT ratio values are below the threshold. In Table 5 the discriminant validity results are depicted.

5. Analysis of Data and Results

5.1. Statistical Techniques

The proposed research model was evaluated in this study using the PLS-SEM technique. It is anticipated that PLS-SEM will have a substantial impact on future research methodologies in the field of CG (Almgrashi & Mujalli, 2024; Hair et al., 2019; Mujalli et al., 2022; Shmueli et al., 2019). The PLS-SEM technique was employed due to its ability to effectively manage intricate models that incorporate numerous significant indicators (Mujalli, 2024a). Previous studies have demonstrated that the use of PLS-SEM is not contingent upon the data adhering to a normal distribution (Hair et al., 2019). Additionally, this methodology may be implemented for sample sizes that are restricted (Almgrashi & Mujalli, 2024). The hypotheses were examined using the Smart PLS program in the study. The study employed the established bootstrapping technique (Hair et al., 2019; Shmueli et al., 2019) to evaluate the significance of the variables. 5,000 iterations were implemented for initialization. In order to achieve our research objective, we analyzed the path coefficients of the variables (Hair et al., 2019; Shmueli et al., 2019). The team adhered to the principles of PLS-SEM and employed a two-stages technique to accurately investigate the data. In the initial phase, the measurement model was subjected to a thorough evaluation, which was followed by the computation of the structural model in the subsequent phase.

5.2. Normality test

At the beginning, the investigator checks for multivariate normality of the data set (Mardia, 1970). For this purpose we employed an online calculator (Zhang & Yuan, 2018). The online calculator estimated that the data do not follow the multivariate normal distribution. Table 4 summarizes the non-normal data set and it emerges that PLS-SEM is quite effective (Hair et al., 2019; Shmueli et al., 2019). This supplementary justification endorses the application of PLS-SEM.

Table 4: Normality test

Measures	Coefficient	p-values
Skewness	96.18459	0.000
Kurtosis	5658.86024	0.000

The majority (62.6%) had worked for five to nine years, whilst a smaller percentage had worked for ten years or more. The respondents are characterized as a highly educated, mid-career professional and professionally experienced cohort—qualities that augment the validity and dependability of the study's outcomes.

Table 3: Participants' attributes

Demographic Items	Frequency	Percentage
Gender		
Male	230	65.16%
Female	123	34.84%
Age		
Less than 29 years	34	9.6%
30 – 39 years	233	66.0%
40–49 years	71	20.1%
50 and more	15	4.2%
Job title		
Managers	81	22.9%
Accountants	154	43.6%
Heads of department	118	33.4%
Education level		
Diploma or lower	79	22.4%
Bachelor's degree	177	50.1%
Postgraduate	97	27.5%
Employment		
Less than 5 years	33	9.3%
5 to 9 years	221	62.6%
10 to 14 years	74	21.0%
15 Years and above	25	7.1%

In Saudi Arabia, 750 questionnaires were sent to individuals who make decisions for small and medium-sized enterprises (SMEs). These questions were delivered to accounting managers as well as other decision-makers. It was these individuals who were asked to ensure that the surveys were sent to the actual end consumers. The technique that was chosen was the result of the accounting managers' direct responsibility for the accounting operations of the organization and their solid awareness of the target consumers. Consequently, a total of 750 questionnaires were distributed. Of these, 397 were not returned or were incomplete. After excluding unusable responses, 353 valid questionnaires were retained for analysis, representing a response rate of 47%.

Table 2 presents a comprehensive summary of the respondents' returns.

Information	Value
Total number of surveys sent out	750
Participants who abstained from completing the survey	397
The number of responders who provided a response	353
The percentage of returned responses	47%

4.2 Demographic attributes of respondents

Table 3 illustrates the demographic attributes of respondents who participated in the survey. The workforce comprised predominantly males (65.16%), with females representing 34.84%, highlighting a gender disparity. The majority of participants (66.0%) were aged 30 to 39 years, indicating a predominantly youthful and engaged professional demographic. Accountants constituted the predominant segment of work roles at 43.6%, succeeded by heads of departments at 33.4% and managers at 22.9%, indicating that the sample predominantly comprised mid- to higher-level professionals. Over three-quarters of those who participated possessed at least a Bachelor's degree, with 50.1% holding undergraduate qualifications and 27.5% holding postgraduate qualifications, reflecting the high educated nature of the workforce.

4.1. Sample, data gathering process and Ethical considerations

Managers, accountants, and employees of Saudi Arabian SMEs who handle day-to-day accounting duties make up the study population. The results' necessary degree of accuracy and the population's different features were considered while determining the sample size. For each variable being studied, a minimum of 10 participants are required, as per a commonly acknowledged criterion for calculating sample size in SEM research (Hair et al., 2019). A minimum sample size of 210 (21×10) is required for this research since it evaluates a single construct with 21 elements. This is the minimum acceptable size for the sample. Kline (2011) further supports this need by arguing that SEM analysis should include at least 200 individuals. However, the proposed research model comprises multiple latent constructs. Following PLS-SEM guidelines, the final sample size of 353 observations exceeds the minimum requirements for estimating a multi-construct model.

The surveys were delivered in person and via Google Forms, and each responder was only allowed to do them once. The organization's website included a request for individuals to sign up for participation by entering their email addresses. The ethical standards for conducting research involving humans were strictly upheld. These standards included the collection of informed consent from participants, the protection of the rights of the participants, and the prevention of any harm that may be caused to the participants. Additionally, the standards included the maintenance of confidentiality with regard to the names and responses of the participants, as well as the maintenance of the integrity of the research process. There was no compulsion whatsoever, and participation was completely at the discretion of each individual. All responses were kept strictly confidential, and the data would be made available to anybody making a request for it strictly for academic purposes.

Digital Accounting System User Satisfaction	DASUS4	"Overall, I am pleased with the performance of DAS".	Rajan & Baral (2015); Hsu et al. (2015)
Corporate Governance	CG 1	"Governance obliges the firm disclosing accurate financial reports and statements".	Al-Attar (2021); Al-Hattami et al. (2024)
	CG 2	"Governance represents transparency, accountability, and inclusive effectiveness".	
	CG 3	"With governance, decision-making can be made according to DAS outputs in favor of the firm".	
	CG 4	"Relying on DAS, the governance can lead to more credible results."	
	CG 5	"Governance relying on DAS results can predict the firm's failure and collapse".	
	CG 6	"Indeed, DAS applications are one of the requirements of corporate governance".	

Service Quality	SRVQ3	"The IS department solves my problems and provides me with prompt service".	Alzoubi (2011)
System Quality	SYSQ1	"DAS interface can be easily adapted to one's personal approach".	Lin et al. (2006)
	SYSQ2	"DAS is easy to use".	
	SYSQ3	"DAS responds quickly enough".	
	SYSQ4	"DAS is always up and running as necessary".	
Digital Accounting System User Satisfaction	DASUS1	"I am satisfied with the IQ".	Rajan & Baral (2015); Hsu et al. (2015)
	DASUS2	"I am satisfied with the SysQ".	
	DASUS3	"I am satisfied with the SrvQ".	

Table 1: Constructs, measurements and their source

Constructs	Code	Indication	Source
Information Quality	IQ1	"Information from the DAS is always timely".	H.-Y. Lin et al., (2006) Mujalli (2024b)
	IQ2	"Information from the DAS is useful".	
	IQ3	"Information provided by the DAS is accurate".	
	IQ4	"Information from the DAS is easy to understand and related to of corporate governance".	
Service Quality	SRVQ1	"The information I receive from the IS department is accurate".	Alzoubi (2011)
	SRVQ2	"Training provided by the IS department improves the quality of my work".	

4. Research Methodology

The study utilized a questionnaire that was initially formulated in English and subsequently translated into Arabic. The questions were used in order to conduct an analysis of the hypotheses that were created for the study (Mujalli, 2024). It is important to note that the original measures have been kept in order to guarantee the validity of the items within the scope of this study. Additionally, these metrics have been carefully chosen and modified from well-established studies in the fields of DAS and IS. The questionnaire was pre-tested in order to evaluate its comprehensibility, relevance, and clarity. This was done in line with previous research, for example Almagrashi et al. (2023), Lutfi, et al. (2022) and Mujalli (2024b). Four individuals who are experts in information systems and DAS worked together to design the questionnaire so it represents a joint effort. A comprehensive review of the questionnaire was carried out by five professional specialists in the relevant field. We made a few adjustments in response to their input in order to make the process of completion easier and to improve the clarity of the information. According to the final version of the survey, respondents were asked to rate their level of agreement using a Likert scale of five points, with one representing a strong disagreement and five indicating a strong agreement. Table 1 below presents a clear explanation of the measurement variables that were used in this analysis, together with the sources from which they were obtained.

3.4. Digital Accounting System User Satisfaction

The degree to which system users believe that the DAS meets their requirements and expectations is reflected in user satisfaction (Bhattacharjee, 2001; Wixom & Todd, 2005). As a result of enhanced reporting accuracy, stronger internal controls, and better decision-making, users who are satisfied are more likely to utilize the system effectively. Institutional Theory emphasizes that organizations which prioritize user satisfaction demonstrate their alignment with normative institutional expectations of operational excellence, thereby enhancing their legitimacy and governance effectiveness. User satisfaction is essential for assuring stakeholder accountability from a Stakeholder Theory perspective. When users are satisfied, processes become more efficient, transparent, and are in alignment with governance and procedural objectives. Prior research (Chou et al., 2014; Lutfi et al., 2022; Wixom & Todd, 2005) has demonstrated that enhanced governance mechanisms and superior performance outcomes are the result of increased user satisfaction. Therefore, user satisfaction with the digital accounting system is expected to play a significant role in enhancing CG practices.

H4: User satisfaction with the Digital Accounting System has a significant positive impact on corporate governance.

3.3. Service Quality

The support services that users receive, for instance responsiveness, assurance, reliability, and empathy, are referred to as service quality ((Alsmadi et al., 2020; Dehghanpouri et al., 2020). Users can maintain confidence in the system, resolve issues promptly, and operate DAS efficiently with the help of effective service quality. When it comes to service quality, the support and services that are offered to users both before and after the deployment of the DAS are quite important. Concerning the management of user concerns and the provision of technical help, it encompasses characteristics such as responsiveness, assurance, dependability, and empathy towards the user. A high level of service quality guarantees that users will get help that is both prompt and effective. This, in turn, boosts the users' faith in the system and decreases their reluctance to using it. Several studies have shown that when users have the perception that suitable support structures are available, their overall experience and level of satisfaction greatly increase (Alsmadi et al., 2020; Dehghanpouri et al., 2020; Lutfi, Alkelani, et al., 2022; Mujalli, 2024b; Wang & Zhu, 2025).

However, according to the expectation-value framework, which was put forward by Kim et al. (2005), users are considered satisfied when they get the services that they want and actually get. This framework also accounts for the relationship between service quality and satisfaction among users. Consequently, when consumers contact with information systems support that delivers high-quality services via courteous communication (safety), considers and comprehends their wants (empathy), and resolves their issues expeditiously (responsiveness), their satisfaction increases (Hsu et al. 2015). According to the aforementioned assertions and DeLone and McLean's (2003) Information Systems Success Model (ISSM), a system characterized by superior service quality results in users experiencing increased satisfaction. Consequently this leads to the following hypothesis:

H3: Service quality has a significant positive impact on Digital Accounting System user satisfaction

3.2. System Quality

System quality is the technical performance of a system, which encompasses its security, response time, reliability, flexibility, and simplicity of use (DeLone & McLean, 2003). The seamless processing of financial data, efficient reporting, and effective internal control mechanisms are guaranteed by a DAS with strong system quality. This enhances the organization's ability to identify irregularities and ensure compliance. System quality pertains to the technological efficacy and functional attributes of the digital accounting system, including usability, speed, dependability, security level, integration, and adaptability. An efficient and user-friendly system enables users to execute their accounting jobs more successfully and with less effort, hence enhancing their satisfaction (Hsu et al., 2015; Lutfi et al., 2022). An exemplary system guarantees data integrity, reduces downtime, and delivers a cohesive user experience. Empirical research has continuously shown that system quality is a significant predictor of user satisfaction in digital contexts, especially within accounting and finance tasks where precision and promptness are essential (Negash et al., 2003).

System usage is characterized as the extent of effort exerted in engaging with an information system or, more rarely, the quantity of reports or other informational outputs produced by the information system over a given period of time (Almagrashi et al., 2023). This aspect of DeLone and McLean's model (2003) signifies the degree of system utilization by those who use it. According to DeLone and McLean's (2003) Information Systems Success Model (ISSM), increased utilization of a system correlates with enhanced user satisfaction. Furthermore, it has been posited (Negash et al., 2003) that increased utilization of the system for a range of activities enhances user confidence and familiarity, leading to the exploration of novel usage ways, hence augmenting user pleasure. The extent of system utilization can influence satisfaction among users (DeLone and McLean 1992). Consequently the subsequent hypothesis is put forward:

H2: System quality has a significant positive impact on Digital Accounting System user satisfaction

3.1. Information Quality

DeLone and McLean (2003) define information quality as the accuracy, completeness, timeliness, relevance, and reliability of information produced by DAS. Decision-making, internal control, external reporting, and stakeholder trust all depend on the availability of high-quality financial information. Information quality pertains to the utility and dependability of the data produced by the digital accounting system (Diavastis et al., 2024). It includes characteristics such as precision, promptness, pertinence, comprehensiveness, and uniformity. Superior accounting information facilitates informed decision-making, reduces ambiguity, and aids in adhering to both internal and external reporting obligations (Alzoubi, 2011; Mujalli, 2024b). When consumers recognize that the system provides precise and dependable financial information, they are more inclined to trust and appreciate it, resulting in increased satisfaction levels. Prior research indicates that enhanced information quality elevates user perceptions, boosts efficiency, and promotes sustained use (Hsu et al., 2015).

However, in an information-dense environment, consumers interact while firms, particularly in the SMEs, navigate competitive landscapes; the caliber of information enables organizations to endure and create a coveted competitive advantage (Quintero et al., 2009). Information quality pertains to the requisite characteristics of what comes out of an Information System (DeLone & McLean, 1992, 2003). According to DeLone and McLean's (2003) Information Systems Success Model, a system that delivers information of excellent quality results in increased user satisfaction. Consequently, when users regard information as accurate, current, consistent, pertinent, thorough, and comprehensible, elevated satisfaction levels might be attained (Hsu et al. 2015). Consequently the subsequent hypothesis is posited:

SysQ, and SrvQ as independent variables, the study endeavors to conduct an investigation on the impact that DASs have on the level of user satisfaction and the longevity of corporate governance. The study also investigates the relationship between the quality of CG and the level of pleasure experienced by DAS users. IQ, SysQ, and SerQ will function as independent variables in this experiment.

Figure 1 is an illustration of the theoretical research framework.

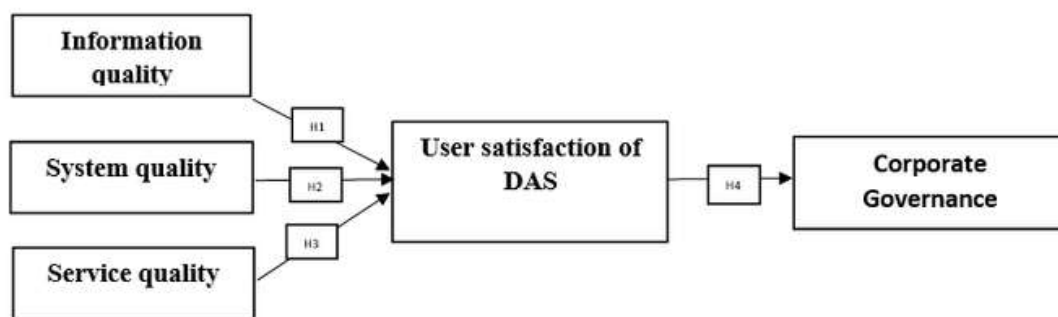


Figure 1: Theoretical Research Framework

H1: Information quality has a significant positive impact on Digital Accounting System user satisfaction

For the purpose of achieving the research objective, the study incorporates additional components for user satisfaction that are distinct from the technical aspects of the system. These components include IQ, SysQ, and SrvQ. According to Urbach and Ahlemann (2010), the purpose of this combination is to provide evidence of certain organizational traits that are essential for the effective implementation of digital systems. In light of the fact that the purpose of digital systems is to establish and improve associations among various business bodies within a single supply chain (Cullen & Taylor, 2009; Lutfi, Al-Okaily, et al., 2022; Mujalli, 2024b; Saad, 2023), it is of extreme significance to conduct an analysis that goes beyond the system's technical components and incorporate elements that demonstrate how users of digital systems interact and collaborate. As a result, the current study broadens the scope of the model by including the overall benefits of Digital Adoption Systems (DASs), which have been neglected in the DASs literature and in the digital system success framework. In the course of previous research projects, the digital system success model has been used extensively for the purpose of assessing the efficiency of information systems. However, the majority of these studies have failed to take into account the use of the conceptual framework to assess DASs within the context of business, as well as the investigation of CG as an exogenous variable (Ifinedo et al., 2010).

Previous studies have used the D&M Success model as the key framework for evaluating the effect of information technology and information systems technologies on company performance. These studies include Al-Hattami et al. (2024), Ifinedo et al. (2010), Lutfi, Al-Okaily, et al. (2022), Lutfi, Alkelani, Alqudah, et al. (2022), Saad (2023), and Xie et al. (2014). The model's capacity to provide light on the connections between enhanced organizational performance and information technology and information systems was proven via an examination of these characteristics. Through the use of IQ,

In regard to the model, the perceptions of the net benefits are influenced by the interaction between IQ, SysQ, and SrvQ, as well as the intentions of users to employ the system and their level of happiness with it (DeLone & McLean, 2003; Petter & McLean, 2009). In addition, the model takes into account the level to which individuals are satisfied with the system. In 2003, DeLone and McLean proposed this approach, and more recently, in 2009, Petter and McLean suggested it as well.

The study also evaluated the adaptability of the model to a number of different levels of analysis, as well as its effectiveness as a model for determining the degree to which users are satisfied with digital systems in connection to the tasks that they have finished (Morshed & Khrais, 2025; Mujalli, 2024b; Petter et al., 2008). It is patently clear that the successful performance of the system is affected by all three quality dimensions, which are information quality (IQ), system quality (SysQ), and service quality (SrvQ). It should come as no surprise that they are necessary for the system to function at its highest level. The effectiveness of a suggested model is evaluated based on a number of measures, including those that calculate user satisfaction, system utilization, and net benefits. As a consequence of this, the new and enhanced version of the digital system success framework, which serves as the foundation for the quality of digital system evaluation, is more user-friendly in a range of contexts, including the deployment and management of digital asset systems (DASS).

While Huynh (2015) looked at the interdependencies between CG and MIS, Kasasbeh, (2017) investigated the impact of CG on DAS in Jordan. This research actively goes above these constraints by providing an unmatched, comprehensive view of DAS's fundamental success factors: system quality, information quality, and service quality. The researcher has filled a research vacuum with his groundbreaking work, which provides new insights to strengthen governance processes in a changing economic world.

3. Theoretical foundation and hypotheses development

The selection of the D&M IS Success Model (2003) for this study was based on its capacity to assess complicated data systems, along with the creation, distribution, and use of procedure information and cause elements which may affect the users of the system. As stated by Mujalli, (2024), DeLone and McLean (1992) divided the success of information systems into six categories based on six different criteria. These categories were as follows: persons, information quality (IQ), system quality (SysQ), user satisfaction, and the impact on the organization. These categories were developed as a consequence of an analysis of 180 research papers that evaluated the effectiveness of information systems and information technology. A revision of the first model was undertaken by DeLone and McLean in 2003. This revision included two things: the incorporation of Service Quality (SrvQ) and the modification of the human and organizational effects with reference to net benefit. The updated model is influenced by individuals' views in the effectiveness of the system, as well as their experience with it, as well as their attitudes and the actions that they do thereafter.

DAS has a significant and multifaceted effect on CG, raising the accuracy, openness, and efficiency of operations to levels never seen before (Al-Hattami et al., 2024; Almaqtari et al., 2023; Wang & Zhu, 2025). Al-Fatlawi et al. (2021) point out that its ability to analyze and publish data in real time eliminates mistakes and gives a clear and true picture of finances, which speeds up the process of making decisions. DAS incorporates advanced risk assessment and compliance monitoring, proactively recognizing and mitigating possible risks (Myovella et al., 2020), while enforcing rigorous data security and accountability via limited access, hence cultivating unshakeable trust (Al-Dalabih, 2018). DAS also encourages board members, CEOs, and auditors to communicate and work together in a dynamic way, which creates a unified governance environment (Brandas et al., 2015). This mutual connection, in which DAS enhances the quality of financial information and facilitates governance choices, is experimentally substantiated (Almaqtari et al., 2023). These qualities make DAS a game-changer that fits well with CG's goals of improving performance, managing risk, and keeping costs down (Wang & Zhu, 2025).

The lack of CG leads to operational disorder, despite the fact that it is relevant across all sizes and markets and brings actual benefits—improved performance, control over risks, and optimization of costs (Fatima et al., 2021). Many studies have focused on CG as an independent variable (Achim et al., 2016; Al Maqtari et al., 2020), but have paid little attention to how it relies on enablers like DAS (Al-Attar, 2021; Uyar et al., 2017). This crucial understanding has sparked a worldwide increase in the study of this issue. Although previous research has examined DAS aspects such as overall system impact and particular features, the key success criteria that determine its effectiveness have been disregarded (Al-Attar, 2021; Fatima et al., 2021).

when remote work became indispensable (Almaqtari et al., 2023). DAS's transformative impact is robustly affirmed by seminal research by Grabski et al. (2011) and Lawal et al. (2022). This research confirms DAS's status as an indispensable pillar of modern enterprise success by delivering cost savings, accelerated data processing, error eradication, and actionable insights.

CG serves as a robust management and control framework, instituting a stringent oversight structure to fulfil organizational goals (Singh & Pillai, 2022). This framework precisely controls and supervises enterprises, fostering unwavering trust among investors and stakeholders—a objective increasingly gaining prominence in developing countries (Saygili et al., 2021). CG optimizes the strategic significance of IT investments, with DAS at its core, fostering business excellence and economic value (Wang & Zhu, 2025; Wilkin et al., 2016). Some writers (Al-Attar, 2021; Kasasbeh, 2017; Neiroukh & Çağlar, 2025) contend that DAS is fundamental to CG effectiveness, facilitating detailed management evaluations by distinguishing between controllable and uncontrolled factors. A precisely operating DAS strengthens governance by improving transparency, increasing investor confidence, and maximizing capital market efficiency while mitigating risks such as fraud and reputational harm (Fatima et al., 2021). High-quality CG is essential for maintaining profitability, securing long-term development, and stabilizing the whole economy, making its ongoing improvement a strategic need (Al-Hattami et al., 2024; Neiroukh & Çağlar, 2025). Lawal et al. (2022) and Al-Hattami and Kabra (2024) assert that neglecting DAS exposes organizations to existential threats and weakened controls, underscoring its significance as a governance cornerstone.

The applicability of these results to SMEs in different contexts should be considered cautiously, because elements such as regulatory frameworks, technology readiness, governance standards, and cultural disparities may lead to discrepancies in IS success. It is for this reason imperative to use caution. Despite these issues, the findings indicate that employing DAS within a robust governance framework can significantly enhance organizational performance by increasing competitiveness, efficiency, and decision-making efficacy, eventually fostering growth and sustained success. These insights are pertinent to politicians, legislators, consultants, providers, and financial institutions, highlighting the strategic importance of DAS and CG in enabling economic transition in developing countries and fostering organizational achievement.

2. Literature Review

The strategic initiative of digitalization is revolutionary, as it utilizes advanced DTs to profoundly transform organizational operations, with accounting serving as a cornerstone of this transformation. As articulated by some authors (O'Leary, 2023; Wang & Zhu, 2025), this seismic transition from outdated manual processes to cutting-edge digital solutions represents a pivotal moment in financial management. In this transformative landscape, the DAS is a foundation of modernization, facilitating financial operations with unparalleled efficiency, precision, and accessibility. This surge in digitalization is a critical aspect of a broader digital revolution, allowing entities to thrive in a thriving, technology-centric global economy that is hyper-competitive. According to Al-Okaily et al. (2022) and Mujalli et al. (2024), DAS eliminates the inefficiencies of paper-based systems, freeing up significant time and resources for strategic imperatives. This lifeline was demonstrated during the COVID-19 pandemic,

Through a multitude of important characteristics, this research contributes to a better understanding of information systems (ISs) and data analytics systems (DAS). The D&M IS Success Model is first validated by experimental testing within the setting of small and medium-sized enterprises (SMEs) in Saudi Arabia, an emerging economic powerhouse that is nonetheless typified by a lack of empirical data. Through the incorporation of CG and business performance as crucial aspects, this study investigates the influence that the adoption of DAS has on the results or objectives of organizations. Additionally, the research places a focus on the satisfaction of users as a significant component. In order to understand the link between the implementation of DAS, governance frameworks, and the consequences that these factors have on Saudi Arabia's SMEs, this is one of the early experimental and theoretical attempts. In particular, the consistent and efficient utilization of DAS within robust governance mechanisms contributes to the enhancement of the predictive and explanatory effectiveness of the D&M IS Success Model. The study highlights the significance of quality characteristics, such as system quality, information quality, and service quality, and as a result, it delivers valuable perceptions into an arena of research that has been relatively underexplored. In this way, research questions are systematically developed in accordance with the stated rationale to analyze and reach the main goals of the study.

RQ: What impact does DAS user satisfaction (DASUS) have on CG?

This study recognizes the distinctive economic framework, cultural conventions, and substantial governmental backing for the digital shift in Saudi Arabia, which might influence both the results and their wider implications. CG measures are essential in this setting, since they guarantee transparency, responsibility, and strategic supervision in the implementation and usage of DAS.

Thus, CG is crucial in this environment since strong governance frameworks guarantee transparency, accountability, and strategic coherence in the implementation and exploitation of DASs. As a result, decision-making frameworks and associated implementation expenses continue to be intricate. Utilizing immediate information in an organized governance framework enables decision-makers to efficiently evaluate and interpret functional data, leading to advantageous decision-making results (Al-Okaily et al., 2022; Mohamed, 2025). The implementation of DASs within robust governance frameworks enhances information dissemination and effective management decision-making, subsequently promoting the attainment of goals and objectives of the organization (Al-Okaily et al., 2022; Lutfi, Al-Okaily, et al., 2022; Saad, 2023; Saad et al., 2022).

This study examines the impact of DAS on the CG, recognizing that the sequential evaluation of their sustainability impacts remains highly contentious despite what prior research has reported (Al-Tae & Flayyih, 2023; Al-Hattami et al., 2024; Fatima et al., 2021). When it comes to the right utilization of DAS, GC processes are essential moderating aspects that establish the norms, duties, and oversight that control decision-makers. Previous research has shown that there is a clear association between decision-making quality, governance techniques, relevant information systems domains, and decision-making systems (Jasim & Ibrahim, 2023; Lehner et al., 2022; Lutfi, Al-Okaily, et al., 2022; Saad, 2023). This study expands upon that previously conducted research. In order to investigate corporate governance, this study makes use of the DeLone and McLean (D&M) Information Systems Success Model (DeLone & McLean, 2003). Furthermore, the study places a focus on the quality metrics of decision support systems, adherence to governance norms, and user satisfaction.

CG is essential for organizations of any size throughout many markets, providing substantial advantages like increased performance, superior risk management, and greater cost control (Almgrashi & Mujalli, 2024). Inadequate administration and deficient CG processes frequently result in organizational disarray, hence eliciting increased academic focus related to governance matters (Fatima et al., 2021; Mujalli, 2024a). The current literature has thoroughly investigated CG as an independent variable affecting several organizational results, for example Achim et al., (2016) and Al Maqtari et al. (2020). There is a paucity of studies examining CG as a dependent variable, particularly concerning DAS (Al-Attar, 2021; Uyar et al., 2017). Previous studies have concentrated on certain aspects of DAS, including its efficacy (Uyar et al., 2017) and overall performance (Al-Attar, 2021), while also investigating the interdependent relationship between CG and DAS (Kasasbeh, 2017; Huynh, 2015). Nevertheless, previous research has predominantly neglected the fundamental variables that facilitate the success of DAS. This paper examines the primary factors that influence DAS success and their implications for enhancing corporate governance.

In recent years, business and government entities in Saudi Arabia have adopted strategies that employ DASs for enhancing operating abilities and efficiency. The swift rise in DAS utilization has necessitated the Saudi government to dedicate resources and implement steps to mitigate limitations that companies experience (Al-Hattami, 2025; Klymenko et al., 2021; Morshed & Khrais, 2025). Notwithstanding these initiatives, enterprises in Saudi Arabia and other developing countries persist in struggling to effectively exploit DASs, especially in analytics for business and support for decisions.

Enhancing data security, accountability, efficacy, interactivity, audit trails, risk management, and data quality are some of the ways in which DAS has a significant influence CG (Al-Hattami et al., 2024, 2025; Barreto et al., 2025; Floropoulos et al., 2010; Wang & Zhu, 2025). As a result of the quick processing and reporting of data that DAS makes possible, the likelihood of mistakes is decreased, and a clear comprehension of financial information is provided (Fatima et al., 2021). According to Al-Okaily et al. (2022), they make it easier to get timely access to financial information, which in turn makes it easier to make decisions that are well-informed. This is accomplished by improving the efficiency of accounting operations. DAS incorporates modules for risk assessment and compliance monitoring in order to reduce the likelihood of possible risks (Al-Hattami et al., 2024). According to Al-Dalabih (2018), they improve accountability by protecting the privacy of data and prohibiting unauthorized access to financial information on the part of third parties. As a result, individuals are able to make choices that are better informed within the context of CG, which in turn strengthens the trust that people have in the reporting process. Al-Attar (2021), Al-Dalabih (2018), Al-Hattami (2025), Al-Hattami et al. (2024, 2025), Almaqtari et al. (2023), Brandas et al. (2015), and Mujalli (2024) are some of the authors who have demonstrated that DAS improves governance by simplifying interaction and cooperation among board members, executives, and auditors. Accordingly, CG is treated as an outcome variable in this study, influenced indirectly by DAS success dimensions through user satisfaction. Effective data analytics systems, as stated by Almaqtari et al. (2023), are responsible for improving the quality of financial information, making decision-making easier, and fostering a strong CG.

According to Wilkin et al. (2016), a primary objective of CG is to maximize returns on investments in information technology, particularly digital accounting systems, in order to achieve organizational goals and create value. Al-Hattami et al. (2024) further argue that the effectiveness of CG is strongly influenced by DAS throughout organizational processes. Digital accounting systems assist managers in distinguishing between controllable and uncontrollable events, thereby facilitating more effective evaluation and decision-making. Similarly, Uyar et al. (2017) suggest that efficient DAS implementation can optimize capital markets, strengthen corporate governance, improve the business environment, and enhance investor trust.

In contrast, inadequate governance may lead to audit and accounting failures, erosion of investor confidence, capital market damage, misappropriation of resources, increased fraud, and reputational harm (Fatima et al., 2021). Consequently, DAS plays a vital role in strengthening governance and procedural effectiveness. Effective CG is essential not only for preserving organizational reputation but also for supporting long-term growth and sustaining consistent profitability (Al-Hattami et al., 2024; Neiroukh & Çağlar, 2025). Operational CG is therefore necessary to ensure that firms and economies operate at their full potential (Jasim & Ibrahim, 2023; Lehner et al., 2022; Lutfi, Al-Okaily, et al., 2022; Saad, 2023). Prior research indicates that DAS represents a critical organizational asset that can significantly enhance CG practices (Klymenko et al., 2021; Al-Taee & Flayyih, 2023; Al-Hattami et al., 2024; Neiroukh & Çağlar, 2025). Without an effective DAS, organizations remain vulnerable and face difficulties in maintaining adequate managerial control (Uyar et al., 2017; Lutfi et al., 2022).

Additionally, it reduces expenditures, simplifies processes, expedites data handling, safeguards users from mistakes, and generates reports that are substantial. Consequently, many authors now emphasize the importance of DAS to the organization (Al-Hattami et al., 2024; Isaac et al., 2015; Klymenko et al., 2021; Morshed & Khrais, 2025).

The prevalence of errors, intense market competition, increased complexity in customer and supplier relationships, and unethical manipulative practices by corporations have all contributed to the growing importance of data analytics systems, particularly in the context of CG (Al-Taee & Flayyih, 2023; Al-Hattami et al., 2024; Fatima et al., 2021). These challenges have heightened awareness of the critical role such systems play in enhancing transparency, control, and accountability. With the rapid advances being made in information technology and the increasing emphasis on corporate governance, organizations have been compelled to shift from conventional accounting systems toward digital accounting systems (DAS). This transition has garnered global attention amid ongoing finance-based debates and economic concerns in recent decades (Al-Hattami et al., 2024; Wang & Zhu, 2025).

CG enables organizations to monitor and control their activities in order to achieve strategic objectives (Almaqtari et al., 2021). As a concept, CG refers to the mechanisms, principles, and practices through which organizations are directed and controlled. In this study, however, CG is operationalized as an outcome-oriented construct reflecting the effectiveness of governance practices in terms of transparency, accountability, decision-making quality, and control. In recent years, CG has received increasing attention in developing countries, where it is viewed as a crucial determinant of investor and stakeholder confidence (Kasasbeh, 2017; Saygili et al., 2021).

Key Words: Digital Accounting System (DAS), Corporate Governance (CG), D&M IS Success Model, User Satisfaction

1. Introduction

Digitalization refers to the deliberate implementation of digital technologies (DTs) to enhance and modify numerous aspects of firms' operations and especially accounting. It entails the change from analogue or manual procedures to digital ones (Coche et al., 2024; Rane et al., 2024). By situating the Digital Accounting System (DAS) concept within the context of digitalization, it becomes evident that the system is a significant element of the modernization and enhancement of financial operations. This is the digitalization stage, during which computer-related and digital tools are employed to enhance the effectiveness, precision, and ease of access regarding accounting operations. Eventually, it provides information on the overall process of digital transition by assisting businesses in their adaptation of new processes and having success in the digital era.

In this study, the DAS is defined as a digital information system that supports accounting processes, reporting, and decision-making. DAS is conceptually distinct from corporate governance (CG) and does not represent a governance mechanism. For example, DAS streamlines numerous tedious, time-consuming procedures that are typical of paper-based systems. This can enable businesses to concentrate on other critical tasks, thereby saving them a significant amount of time and money (Perdana et al., 2024). Additionally, numerous organizations were forced to promptly transition to remote work during the recent COVID-19 pandemic, and DAS allowed them to continue conducting their financial transactions with no incident (Al-Hattami et al., 2025; O'Leary, 2023).

Abstract

This empirical investigation explores the impact of the digital accounting system (DAS) on corporate governance (CG) in Saudi Arabia. The rapidly evolving evolution of technological advances has transformed numerous facets of corporate activities, particularly accounting procedures. The switch from conventional manual accounting methods to digital technologies (DTs) has resulted in substantial alterations in corporate governance (CG) processes. This work explores the level of user satisfaction of DAS, system quality (SysQ), service quality (ServQ) and, information quality (IQ) on CG. The research involved a questionnaire survey sent to 353 managers, the head of departments and accountants from small and medium enterprises (SME) in Saudi Arabia. The proposed research model was empirically tested using a causal Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. The results lead to the conclusion that SysQ, IQ, and SrvQ wield a significant impact on users' satisfaction with DAS. Moreover, user satisfaction with DAS positively influences CG, thereby enhancing its sustainability and reflecting the overall benefits of DAS. The previous research has examined these challenges from many perspectives in developed countries, the data in emerging countries remains scarce. Moreover, the dimensions of DAS and CG with novel perspectives and indicators, including SysQ, IQ, and ServQ, have not been addressed in previous research concerning user satisfaction of DAS and its impact on CG. This work tackles a significant gap in the current knowledge regarding the user satisfaction of DAS and CG research with the recommended model assessed in SMEs in Saudi Arabia applying DAS. In addition, this investigation improves the existing IS literature by recognizing the characteristics that influence the DAS's net advantages. Furthermore, it offers valuable implications for managers, investors, practitioners, academics, and decision-makers. This study serves as a reference to clarify the significance of the user satisfaction of DAS.

The Impact of Digital Accounting System Success on Corporate Governance: An Empirical Study of the Saudi Environment

Ahmed Almgrashi

Department of Accounting and Finance, College of Business, Jazan University, Jazan
45142, Saudi Arabia; almgrashi@jazanu.edu.sa

Table of contents

Subject	Page
The Extent To Which Accounting Curricula In Saudi Universities Are Compatible With Education Curriculum Proposed By The Saudi Organization For Auditors And Accountants.	9
The Impact of Digital Accounting System Success on Corporate Governance: An Empirical Study of the Saudi Environment	145
Does Digital Transformation Increase Investment In Saudi Stock Market? The Moderating Role Of financial Constraints.	98



Accounting Research

A Specialized Semiannual Journal

Publisher: SAUDI ACCOUNTING ASSOCIATION

Volume (17) No. (2) – 1447H – 2026G



Accounting Research

A Specialized Semiannual Journal

Publisher: SAUDI ACCOUNTING ASSOCIATION

ARTICLES IN ARABIC

**Evaluating The Alignment of
Accounting Curricula in Saudi
Universities with the SOCPA
Curriculum Model**

Amira Turki Al-Ghamdi

College of Economics and Management
King Abdulaziz University

Dr. Fahda Sultan Al-Sudairi

College of Economics and Management King
Abdulaziz University

ARTICLES IN ENGLISH

**The Impact of Digital Accounting
System Success on Corporate
Governance: An Empirical Study of the
Saudi Environment**

Dr. Ahmed Almgrashi

College of Business Jazan University

**Does Digital Transformation Increase
Investment Inefficiency in the Saudi
Stock Market? The Moderating Role of
Financial Constraints**

Dr. Mohammed Asiri

College of Business
King Khalid University

Volume (17) No. (2) - 1447H - 2026G