

A WORLDWIDE ISO STANDARDS TREND PERSPECTIVE ANALYSIS

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Abstract

As to ISO standards, the study is based on exploratory research to investigate the problems and the possibilities that have been presented by the International Standards organization, pulling enormous data reported by that organization. The research studies the trends in ISO standards for the period 2011-2023 by using several analytical tools, focusing on 'how' phenomena occur and concluding the key patterns found that would benefit business development. The author explains that it is necessary to invest in obtaining ISO certifications since this will pay off as a competitive advantage and provide highly relevant statistical information about ISO certificates around the world. Specifically, it addresses the question of what it means to be certified, detailing the positive effects of some of the core standards namely ISO 9001, ISO 14001, ISO 27001, ISO 37001, ISO 45001, and ISO 50001. It becomes clear that these certifications will facilitate organizations in differentiating themselves in the competitive marketplace. In this regard, the study findings stress the need to consider the adoption of the ISO standards also to have a strategic advantage.

The study also shows that ISO standards are, to some extent, interconnected and interactively multiply on organizational performance and, therefore, from a business perspective, call for a holistic approach to certification. It is with multiple standard integrations that organizations realize synergy, allowing enhanced efficiency and sustainability. The researchers are encouraged to further test the hypotheses developed since the approach of this study is indicative of paths that could be further investigated to arrive at a deepened insight into the research findings. A close evaluation may indicate how ISO standards affect near-term business performance but also have longer-term consequences for the resilience and growth of an organization within a dynamic global environment. In focusing on these dimensions, this research paper intends to bring into perspective how ISO certification informs multidimensional business strategy, operational excellence, and stakeholder trust.

Keywords: quality management, International Standards Organization, ISO standards, quality culture, ISO certification.

INTRODUCTION

The International Organization for Standardization, or ISO as it is commonly known, is a worldwide acknowledged organization that creates and disseminates international standards. These standards provide a foundation for businesses to function effectively, safely, and by rules. They encompass a wide range of industries and areas. It is critical to uphold strict standards of quality, safety, and compliance in the quickly changing corporate environment of today. Companies everywhere are working hard to satisfy these needs while maintaining sustainable and effective operations.

ISO standards are essential in assisting enterprises in accomplishing these goals. This in-depth essay will discuss the importance of ISO standards and how organizations may maintain their competitiveness and expand by becoming certified to these standards. Credibility can be increased by using certification, which shows clients that goods and services are manufactured and delivered by ISO certification standards.

For every firm, obtaining ISO certification is a noteworthy accomplishment. It distinguishes companies in a crowded market by displaying a dedication to quality, safety, and compliance.

An organization's adherence to the highest international standards is indicated by its ISO certification.

Because they can count on a dedication to quality and compliance, it fosters trust among customers, partners, and stakeholders. An organization's adherence to ISO certification fosters trust among customers, partners, and stakeholders in several key ways:

- **Demonstrated Commitment to Quality** - ISO certification indicates that an organization has implemented a rigorous quality management system. This commitment to maintaining high standards reassures customers that they will receive consistent, high-quality products or services (Fahim & Sadeghi, 2019).
- **Enhanced Credibility** - ISO standards are internationally recognized. Certification provides third-party validation of a company's processes and practices, enhancing its credibility (Zhang, 2020). This external endorsement signals that the organization meets stringent requirements.

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- Risk Mitigation - By adhering to ISO standards, organizations systematically identify and manage risks, reducing the likelihood of errors and failures (Jiang et al., 2018). Stakeholders are more likely to trust a company that actively mitigates risks, knowing that it prioritizes safety and reliability.
- Continuous Improvement - ISO standards promote a culture of continuous improvement. This ongoing commitment to enhancing processes and performance signals to stakeholders that the organization is proactive and adaptable (Sampaio et al., 2018).
- Customer-Centric Focus - ISO standards, such as ISO 9001, emphasize customer satisfaction. Organizations that prioritize understanding and meeting customer needs build stronger relationships, leading to increased trust and loyalty (Narasimhan & Jayaram, 2020).
- Consistency in Operations - ISO certification requires standardized processes and procedures, ensuring consistency in service delivery and product quality (Talib et al., 2018). This reliability fosters trust among customers who expect the same high standards every time they engage with the organization.
- Transparency and Accountability - ISO standards encourage organizations to document and review their processes, promoting transparency (McAdam & Leonard, 2003). This accountability means that stakeholders can have confidence that the organization is operating ethically and responsibly.
- Market Differentiation - In competitive markets, ISO certification can serve as a differentiator. Customers and partners often prefer to engage with certified organizations, as it reflects a commitment to excellence and responsible practices (Mokhtar & Shahin, 2018).

Through these mechanisms, ISO certification enhances operational effectiveness and builds a strong foundation of trust, fostering lasting relationships with customers, partners, and stakeholders.

Because they provide an organized approach to different parts of operations, ISO standards are essential in today's business climate. Businesses can gain from ISO certification through higher customer satisfaction, increased productivity, improved quality, and assurance of adherence to rules and regulations in the sector. The attainment of ISO certification is a fundamental aspect of both commercial and public tender selection processes, and it has the potential to enhance the success rate of corporate tenders.

A certified certification body will conduct certification audits in addition to internal audits, gap analyses, documentation, implementation, and certification audits.

Although it is not required, obtaining ISO certification has many advantages, such as enhanced risk management, expanded market reach, and elevated legitimacy.

Industries as diverse as manufacturing, healthcare, banking, and information technology can all benefit from ISO standards.

The price of ISO certification varies according on

several criteria, including the organization's size, the intricacy of its procedures, and the certifying body of choice.

MATERIALS AND PROCEDURES

Recent years have seen a significant increase in the popularity of literature on quality management, ISO standards, quality culture, quality management systems, etc., because these concepts help all types of organizations become more competitive in a thriving market where supply is significantly less than demand—one of the hallmarks of the global 21st century.

ISO STANDARDS, QUALITY MANAGEMENT, AND QUALITY

Quality is related to various concepts that influence how realistic continual improvement can be. This has to do with a few factors that affect the field's ideology, the working group, and the project participants, etc. This has been characterized by numerous writers as a social war in which supporters of an organization unite (Robbins, 1999). Subject culture pertains to individuals within the organization, their beliefs, the way they use procedures and frameworks, management, and more (Schein, 2013, 2020). This culture drives quality by involving every member of the business in quality improvement and by viewing each individual as a provider as well as a client. This is an excellent way to ensure that everything is done as well as possible right from the beginning. Regarding this, it should be mentioned that staff members shouldn't think that just because there is room for development, there isn't an issue, since this way of thinking has a significant financial cost to the company if things are not done well the first time. In order to prevent responsibility from being transferred along with processes and procedures at every level of product/service realization, it is necessary for products and services to be evaluated at every stage of implementation in companies where a quality culture is prevalent (Harvey & Green, 1993). The aforementioned speaks to four things: (1) the person who gets better with the organization; (2) tolerance and respect from other members of the organization; (3) entrepreneurial abilities; and (4) proof of ability.

Quality culture is demonstrated by the caliber of goods and services produced using standard operating procedures that are recognized, developed holistically, and found in both businesses and their cultures as well as in quality management systems (Vlăsceanu, Grünberg, and Pârlea. 2007).

Aiming for excellence, the realization of best practices and experiences to reach the standards, countries are recognized for their approach to teaching a quality culture in their universities and applying this subject there with the main principles of "training to achieve the goal" and "creating value, to create opportunities bringing benefits". The managerial approach establishes the organization's values, beliefs, and expectations, which in turn form its culture. It also defines the goals and objectives, responsible parties and their responsibilities, and the procedures and processes that are followed to achieve quality.

Lately, a great deal of work has been done in the fields of business ethics, corporate social responsibility, sustainability, and quality culture, as well as quality and its importance and relation to competitive advantage. The relationship between quality, quality culture, ISO standards, doing business, and enhancing quality of life is demonstrated by a number of studies and publications on quality, its management, total quality management, and other topics (Gordon and Owen, 2008, Harvey and Stensaker, 2008, Schein, 2013, 2020). Quality is defined by what consumers anticipate from the products and services they use and buy. This indicates that quality is conditional, highly subjective, related to perception, and concerning attributes.

According to ISO standards, particularly ISO 9001, it is said to partially satisfy customer needs, indicating that customers view quality as something they should anticipate from the good or service. Quality is what consumers want. Quality can be defined as a collection of features in a product or service that can satisfy the needs of the customer. This definition is consistent with the views expressed by Edward Deming, who wrote that "costs should be reduced, increasing productivity, and this leads to quality improvement

through management, design, testing, and processes that are constantly improving," and Peter Drucker, who said that "quality is what customers get from the product and service for which they are willing to pay." (Drucker, 1985)

It seems that meeting the requirements, desires, and expectations of consumers is at the heart of quality. Organizational management, having a strategy, concentrating on the customer, meeting the customer's needs, having qualified as a long-term commitment, working in teams, continuously improving, providing opportunities for staff education and training, granting freedom through control, and empowering and involving employees are all connected to quality management and its system. "The quality management system includes the personnel system, workplace safety, the environment, human safety, production, finance, information, development, and procurement, among other things" (Harrington and Mathers, 1997).

Quality management incorporates quality standards, the most significant of which are ISO standards released by the International Organization of Standards.

Table 1. Quality management components (table prepared by the author of this paper using literature from Juran, J. M., & Gryna, F. M. 1993, Langley, G. J., Nolan, K. M., Nolan, T. W., Norman, C. L., & Provost, L. P. 2009. Montgomery, D. C. 2013, Doligale, D. J. 2006, and Besterfield, D. H., Besterfield-Michna, C., Besterfield-Sacre, M., & Besterfield, G. 2011).

Quality management components		
No	Components	Explanations
1	Quality planning	The process of identifying and deciding how to achieve the project's quality criteria.
2	Quality improvement	The deliberate modification of a process to increase the confidence or reliability of the outcome.
3	Quality control	The ongoing effort to maintain the integrity and dependability of a process in obtaining an outcome.
4	Quality assurance	The systematic or planned actions required to provide sufficient dependability so that a specific service or product meets the defined requirements.
5	Quality goals	To guarantee that all stakeholders in the business work together to enhance the company's procedures, products, services, and culture to achieve long-term, success that stems from customer satisfaction.

Table 2. Quality management advantages (table prepared by the author of this paper using literature from Juran, J. M. 1998, Womack, J. P., & Jones, D. T. 2003, Zeithaml, V. A., Parasuraman, A., & Berry, L. L. 1990, Kotler, P., & Keller, K. L. 2016, and Deming, W. E. 1986)

Quality management advantages anagement components	
No	Advantage
1	It assists an organization in achieving more consistency in tasks and activities associated with the production of products and services.
2	It enhances process efficiency, lower waste, and makes better use of time and other resources.
3	It contributes to increased customer satisfaction.
4	It enables firms to efficiently sell their products and enter new markets, and it makes it easier for organizations to integrate new staff, allowing them to manage expansion more smoothly.
5	It allows a company to constantly enhance its goods and services, processes, and systems.

Table 3. Key benefits of using ISO standards (table prepared by the author of this paper using literature from ISO. 2014, McKinsey & Company. 2012, and ECS. 2011)

Three main types of benefits to using standards		
Key benefit	Benefits	Explanations
1	Streamlining internal operations	A key finding is that standards can be used to streamline an organization's internal process, for example by reducing the time spent on specific activities in performing various business functions, reducing waste, lower procurement costs, and increasing productivity. The case studies consistently report that the contribution of standards to the company's gross profit ranges from 0.15% - 5% of annual sales.
2	Innovation and expansion of operations	A few case studies provide examples where standards have served as the basis for innovating business processes that enable companies to expand their supplier network or effectively introduce and manage new product lies. In other cases, standards helped reduce the risk for companies to introduce new products into national markets.
3	Creating or entering new markets	Standards have been used as a basis for developing new products, and opening up new markets (both domestic and export). Supporting market acceptance of products, and even creating markets, in exceptional cases, the impact of standards went well beyond expectations, with companies generating gross profit contributions of up to 33% of their annual; sales, which helped them position themselves as leaders in their field for at least a plenty period.

Table 4: The most required ISO standards (ISO 2022)

The most required standards around the globe	
ISO 9000 family	Quality management system
ISO 10244 standard	Management of documents
ISO 14000 family	Environment protection
ISO 20000 family	Information technology
ISO 22000 family	Food quality, safety and guarantee
ISO 22301 standard	Business continuity
ISO 27000 family	Information security management
ISO 45000 family	Health and safety at work
ISO 50000 family	Energy efficiency
ISO 56000 family	Innovation management system

Table 5. Organizations' benefits of certification with ISO standards (Melo. 2020)

No	Field of ISO standard	ISO standard	Benefits
1	Enhanced Quality Management	ISO 9001	The Quality Management System standard focuses on improving product and service quality, customer satisfaction, and overall efficiency. Implementing this standard helps organizations streamline processes and deliver consistently high-quality products and services.
2	Medical Device Quality	ISO 13485	The Medical Devices – Quality Management System standard, ensures the quality and safety of medical devices, enhancing patient safety.
3	Environmental Responsibility	ISO 14001	The Environmental Management System standard, guides businesses in minimizing their environmental impact. By adhering to this standard, organizations demonstrate their commitment to sustainability and environmental responsibility.
4	Food Safety	ISO 22000	The Food Safety Management System standard, is essential for businesses in the food industry. It ensures the safety and quality of food products throughout the supply chain.
5	Information Security	ISO 27001	The Information Security Management System standard, safeguards sensitive data and ensures data security. It is crucial in today's digital age, where data breaches can have severe consequences.
6	Anti-Bribery Measures	ISO 37001	The Anti-Bribery Management System standard, helps organizations prevent bribery and corruption, fostering transparency and ethical business practices.
7	Occupational Health and Safety	ISO 45001	The Occupational Health and Safety Management System standard, prioritizes employee well-being and safety. Compliance with this standard reduces workplace accidents and promotes a culture of safety.
8	Energy Efficiency	ISO 50001	The Energy Management System standard, assists businesses in reducing energy consumption and lowering operational costs while minimizing their environmental footprint.
9	Asset Management	ISO 55001	The Asset Management System standard, helps organizations optimize asset performance and reduce costs. It is particularly valuable for asset-intensive industries.

Examples of how organizations benefit from ISO standards applications:

Here are some success stories of businesses and sectors that have benefited from implementing ISO standards:

1. **Toyota Motor Corporation:** Toyota implemented ISO 9001 to enhance its quality management systems. This standard has played a critical role in improving customer satisfaction and operational efficiency. The company's adherence to ISO standards has contributed to its reputation for high-quality vehicles and has helped it maintain a competitive edge in the automotive industry (TMC. 2019). Toyota has long been recognized for its commitment to quality management, particularly through the implementation of ISO 9001. The company's focus on continuous improvement and customer satisfaction has significantly enhanced its operational efficiency and product quality, leading to increased market share and customer loyalty (Kumar, M., & Singh, R. K. (2018).
2. **British Airways:** British Airways adopted ISO 14001 for its environmental management system, which enabled the airline to systematically reduce its environmental impact. The certification helped the company enhance its sustainability practices, resulting in reduced waste and energy consumption, while also improving its public image and compliance with regulatory requirements (BA. 2020).
3. **Nestlé:** Nestlé has implemented multiple ISO standards, including ISO 22000 for food safety management. This commitment has enabled the company to enhance its food safety processes, ensuring high standards of quality and safety throughout its supply chain. As a result, Nestlé has strengthened consumer trust and market position (Nestlé. 2021).
4. **Cisco Systems:** Cisco adopted ISO 27001 for its information security management system, allowing the company to enhance the security of its information assets. This certification has helped Cisco protect sensitive data, mitigate risks, and ensure compliance with global regulations, thereby reinforcing its reputation as a leader in technology and cybersecurity (CSI. 2019).
5. **Coca-Cola:** Coca-Cola implemented ISO 14001 to improve its environmental management practices. By adopting these standards, the company has successfully reduced its carbon footprint and enhanced sustainability practices across its operations, resulting in both cost savings and improved brand reputation (Coca-Cola Company. 2016).
6. **Boeing:** Boeing has implemented ISO/IEC 27001 to enhance its information security management system. This certification has helped the aerospace giant protect sensitive data and intellectual property, thereby strengthening its overall security posture and maintaining customer trust (Boeing. 2018).

7. **Dell Technologies:** Dell Technologies adopted ISO 50001 for energy management, enabling the company to systematically improve energy efficiency across its operations. As a result, Dell has reported significant reductions in energy consumption and operational costs, along with enhanced corporate responsibility (Dell Technologies. 2020).

These examples illustrate how diverse organizations across various sectors have harnessed the power of ISO standards to drive performance, enhance sustainability, and strengthen their competitive positions. Each case reflects a commitment to quality, efficiency, and continuous improvement, underscoring the transformative potential of ISO certification.

METHODOLOGY AND METHODS

The framework for the research was built by ISO standards certificates that were issued between 2012 and 2022. The goal of this study is to develop a theory by elucidating research problems in light of the dearth of algebraic, statistical, and numerical reasoning on the relationships between time and quality management that are represented in ISO standards.

RQ1: Has the number of ISO standards certificates issued over time increased significantly?

Methods and procedures

In particular, prior empirical research does not explain how the number of ISO standards certificates evolved

Selection of case

In this study, three primary factors were examined: (1) a theoretical framework, (2) the appropriateness of the relationships, and (3) the useful benefits that come with ISO standards certificates.

Research questions were developed in light of this. The following are the research questions:

- RQ1: Has the number of ISO standards certificates issued over time increased significantly?

A few theories were developed in response to these study questions:

H0: The number of ISO standards certificates granted over time has no changed significantly.

H1: The number of ISO standards certificates granted over time has significantly increased.

Collection of data

- Data for ISO standards – ISO website.

In preparing this research, only data taken from the International Standards Organization have been used.

Analysis of data

1. The number of ISO certificates issued from 2012 to 2022 was derived from the ISO website.
2. Using Excel, a regressive analysis of the quantity of ISO standards certificates was carried out.
3. Using Excel, a forecast study of the quantity of ISO standards certificates was carried out.

Table 6: Number of ISO standards certificates issued between 2012 – 2022 worldwide (ISO 2022)

Year	No ISO Certificates
2012	1.504.213
2013	1.564.448
2014	1.609.294
2015	1.519.952
2016	1.664.357
2017	1.556.758
2018	1.826.253
2019	1.970.029
2020	2.237.791
2021	2.689.972
2022	3.249.383

Graphic 1. Correlation between time and ISO standards certificates (graphic drawn from the author is this paper, using data from ISO 2022).

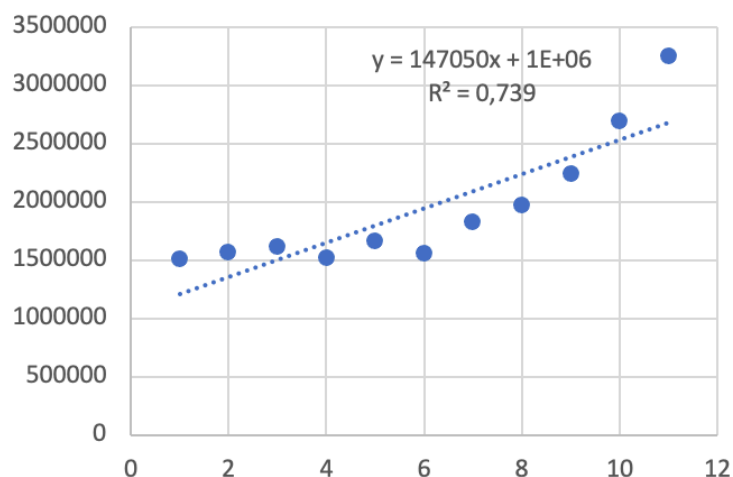


Table 7. Regression analysis summary output (table drawn from the author is this paper, using data from ISO 2022).

SUMMARY OUTPUT	
Regression Statistics	
Multiple R	0.859632
R Square	0.738967
Adjusted R Square	0.709964
Standard Error	305544.6
Observations	11

Table 8. Regression residuals and significance (table drawn from the author is this paper, using data from ISO 2022).

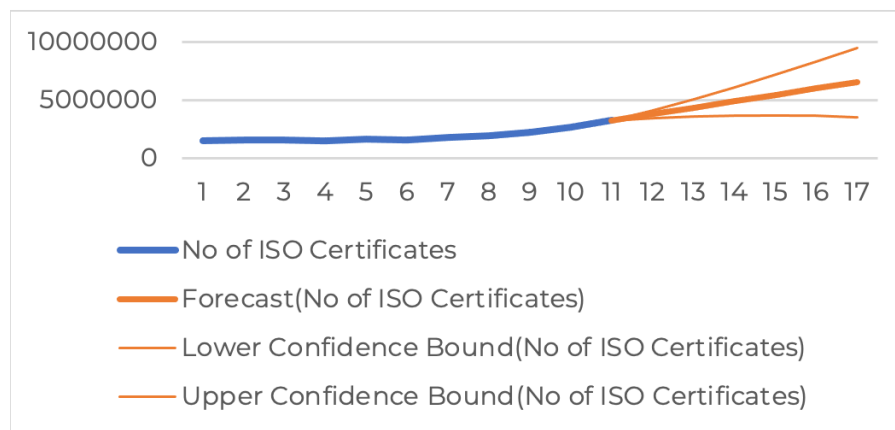
	df	SS	MS	F	Significance F
Regression	1	2.38E+12	2.38E+12	25.47843	0.000693
Residual	9	8.4E+11	9.34E+10		
Total	10	3.22E+12			

Table 9. Regression Intercept (table drawn from the author is this paper, using data from ISO 2022).

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	1062469	197586.5	5.377234	0.000446	615497.2	1509441	615497.2	1509441
Year	147049.9	29132.54	5.047616	0.000693	81147.5	212952.3	81147.5	212952.3

Table 10. ISO certificates issued forecast until 2028 (table drawn from the author is this paper)

Year	No of ISO Certificates	Forecast (No of ISO Certificates)	Lower Confidence Bound (No of ISO Certificates)	Upper Confidence Bound (No of ISO Certificates)
1	1504213			
2	1564448			
3	1609294			
4	1519952			
5	1664357			
6	1556758			
7	1826253			
8	1970029			
9	2237791			
10	2689972			
11	3249383	3249383	3249383.00	3249383.00
12		3796082.429	3457713.18	4134451.68
13		4343036.31	3617424.85	5068647.77
14		4889990.191	3697689.83	6082290.55
15		5436944.073	3709296.49	7164591.66
16		5983897.954	3659863.11	8307932.80
17		6530851.835	3554988.35	9506715.32

Graphic 2. ISO certificates issued forecast until 2028 (graphic drawn from the author is this paper, using data from ISO. 2022)

RESULTS

Summary output

The primary finding of this research is that there has been a significant increase in the number of ISO certificates globally between 2012 and 2022, and this trend seems likely to continue. This suggests that achieving ISO certification is an impressive feat that sets a company apart in a crowded market by demonstrating a commitment to quality, safety, and compliance, building trust among partners, customers, and stakeholders; additionally, because ISO standards offer an organized approach to

various aspects of operations, they are essential in today's business environment. Businesses can benefit from ISO certification through higher customer satisfaction, increased productivity, improved quality, and assurance of adherence to rules and regulations in the sector. Obtaining ISO certification is a crucial component of the selection processes for both commercial and public tenders, and it can increase the success rate of corporate tenders.

While not mandatory, ISO certification offers several benefits, including improved risk management, increased market reach, and increased legitimacy.

Research's context

When combined with other strategies like creativity, innovation, intellectual property, etc., quality management—embodied at ISO standards—can provide a competitive edge in a changing market. Previous empirical research has shown that, in addition to several significant theoretical studies demonstrating the significance of quality management and ISO standards certification, there are few studies on the subject that are mathematical, statistical, and algebraic as well as theoretically approached.

DISCUSSION

Based on the study's final findings, a new avenue for further research has been opened in the still-unknown domain of the ISO certificate number increase and its relationships with other domains and patterns like economic growth, intellectual property, quality of life, etc. The main finding of a regressive analysis is the significance of the ISO certificates number increase and about the observations for theory and practice. In terms of application, the study emphasizes how important it is to see the relationships between ISO standards certificates, notable business accomplishments and economic growth, intellectual property, and quality management as a triangle because doing so aids in the development of stronger competitive advantage strategies by businesses and the country's economy as a whole. Besides that, it is essential to consider other influencing factors, such as economic growth, intellectual property rights, and quality of life, which may also impact the number of ISO certifications granted over time.

- **Economic Growth** - Economic growth often correlates with an increase in ISO certifications. As economies expand, businesses seek to enhance their competitive edge and operational efficiencies, often turning to ISO standards as a means of achieving these objectives. A study by Gibbons and Wood (2019) highlighted that countries with robust economic growth tend to adopt ISO standards more rapidly, as businesses strive to meet both domestic and international market demands (Gibbons, J., & Wood, D. 2019).
- **Intellectual Property Rights** - The protection of intellectual property (IP) can also influence the number of ISO certifications. Strong IP rights can encourage innovation and quality management practices within organizations, prompting them to seek ISO certification to safeguard their processes and products. A study by Maskus (2017) found that nations with stronger IP protection frameworks are more likely to see an increase in ISO certification as companies aim to align with international quality standards and protect their proprietary technologies.
- **Quality of Life** - Quality of life indices can also correlate with the adoption of ISO certifications. Higher

quality of life often leads to increased consumer expectations regarding product quality and safety. Organizations, in turn, may pursue ISO certification to meet these expectations and enhance their market position. Research by Sweeney and Soutar (2020) indicates that regions with higher quality of life ratings tend to have more businesses pursuing ISO certifications, driven by a consumer base that prioritizes quality and ethical practices.

Incorporating these additional factors—economic growth, intellectual property rights, and quality of life—into the analysis provides a more comprehensive understanding of the dynamics influencing the number of ISO certifications over time. By exploring these interrelated aspects, researchers can gain deeper insights into the broader context of ISO certification trends and their implications for organizations globally.

LIMITATIONS AND AVENUES FOR FURTHER RESEARCH

This article attempts to answer these concerns by highlighting recurring problems with understanding the relationships between ISO standards, notable corporate achievements, and trends like economic growth, intellectual property, and quality of life. The research presented in this paper provides a window for other scholars and practitioners working in similar disciplines, since we are now much closer to being able to design studies that will be able to provide better answers to such concerns. Further research is being done on the systems that enable these relationships, however at this point there is enough data to offer some conclusive responses to queries about these relationships.

Using comprehensive data on these topics from 2012 to 2022, this study is the first of its type to examine the relevance of ISO certificate number increases; nevertheless, additional research is required to ascertain whether these correlations persist.

I can argue that future research should: Think about likely interactions between variables that might be particularly relevant to the topics being studied; however, keep in mind that researchers don't need to consider every possible interaction; instead, they should concentrate their data collection efforts on testing explicitly defined interactions. Additionally, information that would demonstrate connections between ISO standards certificates and economic growth, intellectual property, and QM at the level of countries and economies should be gathered.

CONCLUSIONS AND RECOMMENDATIONS

1. According to the study's final findings, a new line of inquiry into the as-yet-unknown subject of the ISO certificates number increase and its relationships with other domains and patterns like economic growth, intellectual property, quality of life, etc., has been opened. The main finding of a regressive analysis is the significance of ISO certificates number increase and about the observations for theory and practice. In terms of application, the study emphasizes how important it is to see the relationships between ISO standards certificates, notable business accomplishments and economic growth, intellectual property, and quality management as a triangle because doing so aids in the development of stronger competitive advantage strategies by businesses and the country's economy as a whole.
2. What matters most, though, is that this study's regression analysis of the importance of ISO standards certifications growth yielded statistical results for the first time.
3. The rise in ISO standards certificates, which has been statistically shown to be significant, ought to be linked to other trends such as economic expansion, quality control, intellectual property, and living quality, among others.

Conflict of interests

The author declares no conflict of interest.

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