RELEVANCE OF INTEGRATING CRYPTO EXCHANGE BUSINESS AND TOURISM: PROFESSIONAL COMPETENCIES AND SKILLS OF SPECIALISTS IN THE CONTEXT OF MODERN CHALLENGES

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INTRODUCTION

The integration of cryptocurrencies into the tourism sector offers innovative solutions that align with the evolving preferences of modern travellers.

The use of cryptocurrencies in tourism ensures convenient and secure transactions for individuals who prefer decentralized payment methods. Additionally, offering services linked to cryptocurrency – such as hotel bookings, tours, or transportation rentals – can attract an innovation-driven audience, enhancing the appeal of tourism products.

Furthermore, the international nature of cryptocurrencies, unbound by national currencies, simplifies financial operations, particularly in countries with unstable economies. This synergy between financial technology and tourism creates opportunities to address contemporary market demands and expand the horizons of both industries.

Over the past few years, cryptocurrencies have gained substantial traction, becoming a key element of the global financial market. With millions of users and investors participating, digital assets have firmly established themselves as a critical aspect of modern finance. This growth has led to an increasing reliance on crypto exchange platforms, which facilitate the buying, selling, and trading of various cryptocurrencies.

Crypto exchange companies are at the heart of this ecosystem, acting as intermediaries between users and the digital asset market. These platforms offer essential services that enable individuals and institutions to access, manage, and convert cryptocurrencies. By providing secure storage and seamless exchange options, they contribute significantly to the broader adoption and integration of cryptocurrencies into the financial system.

The overall trading volume on cryptocurrency exchanges continues to grow annually¹, with the number of active platforms exceeding several

¹ Cryptocurrency Market Size, Share & COVID-19 Impact Analysis, By Component (Hardware, Software), By Type (Bitcoin, Ether, Litecoin, Ripple, Ether Classic, and Others), By End-Use (Trading, E-commerce and Retail, Peer-to-Peer Payment, and Remittance), and Regional Forecast, 2021–2028. URL: https://www. fortunebusinessinsights.com/industry-reports/cryptocurrency-market-100149

hundred, ranging from major international players to local startups. This growth is driven by several factors: increasing interest in cryptocurrencies among retail and institutional investors; rapidly evolving infrastructure enabling seamless integration of cryptocurrency services; the emergence of new digital assets such as Non-Fungible Tokens NFTs and stablecoins.

However, alongside the growth in the number of players, competition intensifies, and regulatory and operational risks increase. The rapid development of the industry demands that crypto exchange companies adopt effective risk management mechanisms to ensure reliability, transparency, and compliance with legal requirements.

As such, the study of a risk-based approach² in crypto exchange companies is highly relevant. It not only helps mitigate threats but also contributes to the professional development of specialists capable of addressing the challenges of the modern crypto economy.

The integration of cryptocurrency exchange business with the tourism sector also has gained significant relevance in recent years.

As the world becomes more interconnected, cryptocurrencies offer new opportunities for enhancing cross-border travel and simplifying financial transactions. For the tourism industry, the ability to accept cryptocurrencies not only facilitates smoother and faster payments but also attracts a growing segment of tech-savvy and cryptocurrency-enthusiast travellers.

However, this integration also brings new challenges that require professionals in both the crypto exchange and tourism industries to develop specialized competencies. These competencies are essential for navigating the rapidly evolving landscape of digital currencies and ensuring secure, efficient, and compliant transactions. Professionals need to understand the intricacies of cryptocurrency exchange operations, the regulatory landscape, and how to leverage these technologies to improve customer experience and expand business opportunities in the tourism sector.

This research aims to explore the relevance of integrating crypto exchange business with tourism, emphasizing the professional competencies and skills required for specialists to succeed in this modern, dynamic environment.

1. The problem's prerequisites emergence and the problem's formulation

The integration of cryptocurrency exchange businesses into the tourism sector, while enhancing convenience for payments and exchanges, introduces significant risks. As the cryptocurrency market expands,

² Risk-based approach. URL : https://www.coe.int/en/web/moneyval/ implementation/risk-based-approach

complexities and risks inherent in trading and exchanging between cryptocurrencies and fiat currencies have escalated. Cyber threats, operational challenges, and the potential misuse of these systems for illicit activities, such as money laundering and fraud, are especially concerning tourism businesses adopting these payment methods.

Cryptocurrency exchange companies themselves face critical risks such as market manipulation, cyber-attacks, and compliance failures, which require specialized risk management strategies. These vulnerabilities, when transferred to tourism operations, heighten the exposure of the industry to financial and reputational damage. Traditional risk management approaches used in conventional financial systems often prove inadequate for addressing the dynamic risks associated with cryptocurrencies.

To mitigate these risks effectively, a robust risk-based approach is essential, incorporating the following key activities.

1) Risk Identification: recognizing and categorizing potential threats related to cryptocurrency use in tourism transactions;

2) Risk Assessment: evaluating the severity and likelihood of risks specific to the integration of crypto payment systems;

3) Risk Mitigation: implementing strategies to minimize vulnerabilities, such as adopting secure payment gateways and compliance mechanisms;

4) Risk Monitoring: continuously tracking risk factors to ensure mitigation efforts remain adaptive to evolving threats;

5) Reporting: documenting and communicating risk-related findings to stakeholders in the tourism and crypto exchange sectors.

By fostering these practices, tourism businesses leveraging cryptocurrency exchange platforms can enhance their resilience while navigating the intricate and rapidly changing landscape of financial technology risks.

Tourism companies face financial risks that may arise from fraudulent actions by clients, such as using stolen data to pay for services. These situations lead to direct losses and require significant resources to resolve disputes. Additionally, issues with payment system integration can cause delays in fund transfers, negatively affecting financial stability, particularly in force majeure circumstances such as trip cancellations due to natural disasters or pandemics.

Information security risks hold a critical place in managing tourism companies. Cyberattacks are becoming increasingly frequent, threatening client data breaches and causing significant reputational damage. Insufficient protection of personal information, including credit card details, can not only harm a company's reputation but also lead to severe legal consequences.

Operational risks include technical failures that can disrupt the functionality of online booking platforms. Even short-term outages can

inconvenience clients and generate additional costs for the company. Furthermore, employee errors, such as incorrect booking arrangements or scheduling mistakes, add to the challenges, diminishing the quality of service.

Reputational risks are closely tied to negative client experiences. Issues with service quality, such as delays in booking confirmations or discrepancies between advertised and actual features of hotels or excursions, quickly become subjects of discussion on social media. Negative reviews spread rapidly, undermining trust in the company and deterring potential customers.

Legal risks emerge when tourism companies fail to comply with regulatory requirements. These may involve data protection, licensing, or financial reporting. Operating in international markets heightens these risks, as companies must navigate differing legal frameworks, especially in taxation and currency operations.

Partnership risks stem from unreliable service providers, such as airlines or hotels. If partners fail to fulfil their obligations, the tourism company finds itself in a difficult position with clients, losing their trust. Technical challenges in integrating partner platforms further compound the problem, particularly when managing large booking volumes.

Geopolitical risks in tourism are associated with instability in certain countries. Sudden changes, such as visa restrictions or border closures, can make it impossible to deliver booked services. Additionally, companies operating in regions under sanctions face further financial and reputational challenges, complicating their operations.

As tourism companies, such as hotels or passenger transportation providers, begin accepting cryptocurrency payments through crypto exchange businesses and plugins integrated into their websites, they face a new set of risks. These include the volatility of cryptocurrency prices, which can lead to significant fluctuations in the value of transactions. While cryptocurrency payments offer speed and convenience, the value of digital currencies can change drastically within short periods, potentially causing financial losses if the exchange rate fluctuates unfavourably after a transaction is made.

Another critical risk is related to regulatory uncertainty. Cryptocurrencies are subject to varying and rapidly evolving regulations across different countries. This creates potential legal complications for tourism businesses accepting cryptocurrency payments. Companies may face challenges in complying with Anti-Money Laundering (AML)³ and Know-Your-Customer

³ FATF (2013-2017), Anti-money laundering and terrorist financing measures and financial inclusion – With a supplement on customer due diligence, FATF, Paris. URL : www.fatf-gafi.org/publications/financialinclusion/documents/financial-inclusion-cdd-2017.html

 $(KYC)^4$ requirements, especially when using crypto exchange services that might not fully adhere to these regulations. This can expose businesses to legal liabilities or even penalties if proper safeguards are not in place.

The security risks associated with crypto payments also pose a major concern. Crypto exchange platforms, despite their growth and adoption, are frequent targets for cyberattacks. Hacking incidents, such as theft of funds from exchange wallets or breaches of customer data, could compromise the financial and reputational security of tourism companies. Even if these companies implement advanced security measures, they remain at risk due to the nature of the third-party platforms they rely on.

Moreover, issues related to chargebacks are another area of concern. Unlike traditional credit card transactions, cryptocurrency payments are irreversible once completed. This means that if a customer decides to dispute a transaction or if fraudulent activity occurs, the company will not be able to reverse the payment or refund the funds. This creates a layer of complexity in dealing with dissatisfied customers or disputes, adding to the operational risks for tourism providers.

The current relevance of this topic cannot be overstated. As cryptocurrency adoption continues to rise globally, more and more businesses, including those in the tourism industry, are exploring how to incorporate digital currencies as a payment method. The increasing integration of crypto payment systems presents both opportunities and challenges, as businesses need to balance innovation with robust risk management strategies. As such, understanding the risks associated with crypto exchanges and how they impact tourism companies is essential for ensuring the long-term sustainability of this trend in the industry.

2. The analysis of existing methods for solving the problem and formulating a task for the optimal technique development

Despite the appeal of cryptocurrency payments, tourism companies need to carefully consider and analyse all the risks associated with implementing cryptocurrency payment systems and develop an effective strategy to mitigate these risks. This strategy should include mandatory staff training to ensure they are equipped with the necessary skills to handle new technologies, as well as a strong focus on security and compliance. Staff qualification improvement will help reduce operational risks associated with errors in processing cryptocurrency transactions and ensure awareness of current cryptocurrency legislation and data protection requirements.

 $^{^4}$ The History of KYC. URL : https://dojah.io/blog/the-history-of-kyc?10k-fraud-free-transactions=true

Employees should be knowledgeable in cybersecurity, risk management, and compliance with anti-money laundering regulations. Regular training and workshops will help staff not only work effectively with payment systems but also stay prepared for potential threats such as cyberattacks or fraud attempts. It is essential that employees stay updated on the latest legal changes and technological innovations to ensure maximum protection for both the company and its clients.

The implementation of cryptocurrency payment systems also requires clear coordination between various departments of the company, from the finance team, which must account for the risks of cryptocurrency value fluctuations, to the legal department responsible for ensuring regulatory compliance. Only through a comprehensive approach to employee training and preparation can the company effectively manage risks and ensure security for both customers and the business itself.

In a tourism company that begins accepting cryptocurrency as a payment method, risk management takes on particular importance, as the introduction of new technologies and payment systems comes with a range of unique risks. In this context, the primary task of the risk management team is to effectively identify and minimize the threats associated with the use of cryptocurrency payment systems and integrate them into the company's overall security framework.

Initially, it is crucial to consider that cryptocurrencies are highly volatile, which can impact the company's financial transactions. Risk management must assess the potential fluctuations in cryptocurrency values and develop strategies to minimize financial losses. This may include utilizing conversion services for quick exchanges of cryptocurrency into fiat currency, as well as implementing mechanisms to protect against losses caused by sharp market swings.

Another key consideration is transaction security. As cryptocurrencies are based on decentralized technologies, they are vulnerable to cyberattacks and fraud. Risk management must ensure regular assessments of cryptocurrency payment systems for vulnerabilities, as well as implementing additional security measures, such as multi-factor authentication, data encryption, and protection against phishing attacks. Furthermore, employees must be trained on how to properly handle cryptocurrency transactions to minimize human error or fraud risks.

A third critical risk involves compliance with legal and regulatory requirements. The cryptocurrency market is not always uniformly regulated across different countries, which could pose legal challenges for a tourism company. It is essential for risk management to monitor changes in legislation and international standards related to cryptocurrencies to ensure compliance with regulations and reduce legal risks. This includes adherence to KYC and AML rules, as well as compliance with data protection requirements.

Additionally, accepting cryptocurrency as a payment method can affect the company's reputation. It is important for the risk management team to assess public opinion and the potential for negative customer reactions from those who may be hesitant or distrustful of cryptocurrency payments. Transparently informing customers about the benefits and security of using cryptocurrency, as well as the measures taken to protect data, can help mitigate reputational risks. As a result, integrating cryptocurrency payment systems requires a comprehensive approach to risk management. This includes not only technical security measures but also legal preparedness and the creation of a strategy to manage financial risks associated with cryptocurrency volatility. It is essential for the risk management team to address all these aspects to ensure business stability and customer security.

A tourism company accepting cryptocurrency payments should base its activities on the following risk management principles:

1) Risk management should provide reasonable assurance that the company's business value is protected from uncertainties and potential losses;

2) All employees of the tourism company should be responsible for identifying and mitigating key risks within their respective areas of operation;

3) Employees should ensure the effective utilization and allocation of the company's resources;

4) The emergence of risks, the progress of mitigation plans, and their status will be regularly monitored to ensure ongoing risk control.

In our opinion, it is essential for specialists in the tourism business to master a tool such as the risk matrix⁵. This will not only allow them to systematize potential threats that the company may face but also effectively manage these risks, minimizing potential losses and increasing business resilience. The risk matrix helps to clearly assess the likelihood of various risks and their potential consequences, which is a key step in developing strategies to mitigate them.

Moreover, specialists must have the necessary competencies to work with this tool. They need to be able to properly analyse information, use methods for both quantitative and qualitative risk assessment, and respond quickly to changes in the external and internal environment. Mastering the risk matrix requires employees to possess not only analytical and technical

⁵ Risk, Uncertainty, and Profit (Boston MA: Hart, Schaffner and Marx; Houghton Mifflin, 1921) URL : https://fraser.stlouisfed.org/files/docs/publications/books/risk/riskuncertaintyprofit.pdf

skills but also the ability to work in a team, effectively communicating with colleagues and management on risk management issues.

It is also important for specialists in the tourism business to develop leadership qualities and the ability to make decisions in uncertain conditions. Risk management is not only a tool for preventing threats but also a means of responding quickly to changing market conditions, which is especially relevant in today's economy and amid geopolitical risks.

One way to approach the risk matrix (Table 1) for a traditional tourism company (in the sense of accepting fiat currencies as a means of payment) is to examine its key components and structure.

Table 1

Risk Category	Likelihood	Impact	Risk Level	Risk Mitigation Measures
Political instability in key destinations	High	High	Critical	Diversify destinations, closely monitor political conditions, offer flexible cancellation policies
Changes in travel restrictions due to international conflicts	Moderate	High	High	Stay updated on government policies, ensure flexible booking systems, partner with reliable insurance providers
Terrorist activities or civil unrest affecting travel routes	Low	High	High	Implement emergency response protocols, enhance communication with clients, ensure real- time safety updates
Changes in visa policies or border regulations	High	Moderate	Moderate	Monitor international policy changes, educate clients about necessary travel documentation, provide legal support
Economic sanctions or embargoes	Low	Moderate	Moderate	Assess financial impacts, adjust pricing or routes, if necessary, work with local authorities to ensure compliance

Risk matrix for a traditional tourism company

Table 1 (continuance)

Currency devaluation in key markets	Moderate	Moderate	Moderate	Hedge against currency fluctuations, adjust pricing models, offer alternative payment methods
Natural disasters influenced by geopolitical factors	Low	High	High	Develop contingency plans, collaborate with local authorities, ensure client safety through clear communication

In the context of the risk matrix for a tourism company, the professional competencies and skills of specialists are crucial for effectively managing and mitigating the identified risks. The following competencies and skills are essential:

1) Specialists need a strong understanding of risk assessment methodologies, including the ability to evaluate the likelihood and potential impact of geopolitical risks. This competency allows them to effectively populate and analyse the risk matrix, determining which risks require immediate attention.

2) A deep understanding of global political dynamics, international relations, and current events is essential for anticipating political instability, changes in travel restrictions, and other geopolitical risks. Specialists should stay informed about global developments to foresee potential threats to the business.

3) In the event of geopolitical crises, specialists must be able to manage emergencies swiftly. They should have skills in crisis communication, coordinating responses, and implementing contingency plans. These skills ensure that the company can minimize disruptions to its operations and maintain customer trust.

4) Tourism specialists must have strong communication skills to effectively liaise with other departments, government bodies, suppliers, and customers. The ability to communicate risk-related information clearly and promptly is critical in ensuring that all stakeholders are informed and prepared for potential geopolitical risks.

5) Understanding the legal implications of geopolitical risks, such as changes in visa policies, travel restrictions, and economic sanctions, is crucial. Specialists should be well-versed in international law, border regulations, and travel compliance to ensure that the company adheres to all necessary guidelines.

6) Specialists should possess cultural awareness and adaptability when managing risks in different regions. This allows them to navigate the complexities of political and social climates in various countries, ensuring the company can continue its operations smoothly even in challenging geopolitical environments.

7) The ability to make informed decisions in uncertain and volatile conditions is essential. Tourism company specialists should be able to apply critical thinking and judgment when assessing geopolitical risks and determining the best course of action to mitigate them, especially in scenarios where information is incomplete or rapidly changing.

8) Given the increasing role of technology in risk management, specialists should be proficient in using data analytics tools, monitoring systems, and risk management software. These tools help in identifying emerging risks early and allow for proactive measures.

9) In times of geopolitical risks, maintaining strong customer relationships is vital. Specialists should have skills in managing customer expectations, addressing concerns, and providing support, ensuring that clients continue to trust the company even when risks materialize.

For specialists working in a tourism company that accepts cryptocurrency payments, additional competencies are required to effectively manage the risks and operations associated with cryptocurrencies. There are the key competencies:

1) Specialists need a solid understanding of cryptocurrencies, blockchain technology, and the principles of working with digital assets. This knowledge enables them to safely process cryptocurrency transactions and ensure they align with the company's internal standards.

2) It is important to be familiar with the legal and regulatory frameworks governing cryptocurrency use in various countries. Specialists must stay informed about the legal requirements in areas like AML, KYC and other relevant rules to avoid legal risks and sanctions.

3) Specialists should be proficient in managing cryptocurrency wallets and payment gateways, ensuring proper and secure transaction processing. They also need skills in handling multiple payments and converting cryptocurrencies into fiat currencies when necessary.

4) Cryptocurrencies are highly susceptible to hacking and theft. Therefore, specialists must be trained in cybersecurity fundamentals, including data protection methods, monitoring unusual activities, and preventing attacks on the company's digital assets.

5) Working with cryptocurrencies involves price volatility and unpredictable financial flows. Specialists must be able to assess the risks associated with cryptocurrency price fluctuations and develop strategies to minimize losses during price changes. 6) Specialists should be skilled in using analytical tools to monitor cryptocurrency transactions in real-time. These tools help in tracking operations and allowing for quick responses to potential risks.

7) Specialists must have the ability to provide a seamless customer experience for clients using cryptocurrencies. This includes quickly resolving issues related to transactions or technical glitches and ensuring smooth payment processes.

8) It is crucial for specialists to have a deep understanding of risks related to compliance breaches, such as money laundering and terrorist financing. They need to collaborate with internal control teams to maintain high standards of security and transparency in transactions.

9) Given the rapid development of the cryptocurrency market, specialists must be able to implement new crypto payment technologies and test them for security and effectiveness.

Thus, for tourism companies, the risk matrix becomes more complex (Table 2). Establishing the Risk Project Team (RPT) with clear goals and responsibilities is essential for proactively managing risks and ensuring the long-term success and resilience. This team plays a crucial role in fostering a risk-aware culture and maintaining trust among stakeholders.

In our opinion, a modern travel company, occupying a niche in the tourism services market, should have a team responsible for risk management and mitigation, just as much as a market operator or airline company. This team should possess a wide range of competencies and skills (Table 3), including in-depth knowledge of cryptocurrency technologies and blockchain systems, enabling them to identify vulnerabilities and ensure the security of transactions.

For successful integration, tourism companies require personnel with proficiency in blockchain technology and the integration of cryptocurrency payment systems. This includes knowledge of secure transaction platforms and digital wallet management, as well as an up-to-date understanding of emerging technologies. IT professionals within the company must be capable of maintaining the integrity of these systems and ensuring that cryptocurrency payments are processed seamlessly and securely.

Legal expertise is also crucial when dealing with cryptocurrency transactions, as the legal landscape for digital currencies is complex and often varies by jurisdiction. Employees should be familiar with AML and KYC regulations to ensure that the company remains compliant with both local and international laws. Understanding and adhering to these regulations is critical for avoiding legal risks and protecting the company's reputation.

Risk matrix for a modern tourism company	Risk	matrix	for a	modern	tourism	company
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Risk Category	Likelihood	Impact	Risk Level	Risk Mitigation Measures
Operational Risks	Medium	High	High	Regularly test and update payment gateways and cryptocurrency wallets. Implement backup solutions
Financial Risks	High	High	High	Use automatic conversion to fiat currencies, implement hedging strategies to protect against volatility
Cybersecurity Risks	Medium	High	Critical	Apply strong encryption, multi- factor authentication, and conduct regular security audits
Legal & Compliance Risks	Low	High	Critical	Ensure compliance with AML and KYC regulations, provide staff training, and conduct audits
Reputation Risks	Medium	High	Medium	Enhance communication with customers, maintain transparency, and provide clear instructions for crypto payments
Market Risks	Medium	High	High	Monitor regulatory changes, diversify payment methods to reduce reliance on cryptocurrency
Customer Risks	Medium	Medium	Medium	Offer clear educational resources, provide support for customers using cryptocurrencies
Liquidity Risks	Low	High	High	Partner with trusted exchanges, establish a plan for quick conversion of cryptocurrency to fiat currency
Technology Risks	Low	High	High	Collaborate with reliable blockchain service providers, perform regular technical evaluations
Geopolitical Risks	Low	High	Critical	Stay updated on geopolitical developments and adjust offerings based on regional regulations

Table 3

Risk categories, competencies, and skills for effective RPT
in a tourism company accepting cryptocurrency payments

Risk Category	Competencies of the RPT	Skills of the Specialists
Operational Risks	Understanding of operational processes, supply chain management, and risk monitoring	Ability to identify bottlenecks, implement efficient procedures, and analyse risks
Financial Risks	Knowledge of financial management, cryptocurrency market volatility, and budgeting	Proficiency in financial analysis, accounting, and the ability to assess and manage risks related to financial transactions
Cybersecurity Risks	Expertise in IT security and cryptocurrency technology	Skills in managing cyber threats, implementing encryption protocols, and ensuring the integrity of digital transactions
Legal & Compliance Risks	Understanding of cryptocurrency regulations, AML, and legal frameworks	Knowledge of compliance requirements, risk assessment related to regulations, and ability to implement effective policies
Reputation Risks	Crisis management, public relations expertise, and knowledge of digital reputation	Skills in managing online reputation, handling negative publicity, and ensuring customer trust
Market Risks	Market analysis and strategy development in a fluctuating crypto environment	Competence in forecasting market trends, pricing strategies, and managing market-related risks
Customer Risks	Knowledge of customer behaviour, expectations, and risk management in customer interactions	Ability to analyse customer data, assess satisfaction levels, and address issues to maintain customer loyalty
Liquidity Risks	Understanding of cash flow, liquidity management, and cryptocurrency exchanges	Skills in ensuring adequate liquidity, assessing exchange rates, and maintaining operational stability

Table 1 (continuance)

Technology Risks	Expertise in blockchain technology, smart contracts, and system integration	Proficiency in assessing technological systems, identifying vulnerabilities, and managing tech-related risks
Geopolitical Risks	Awareness of global political climates, particularly as it relates to cryptocurrency adoption	Ability to assess how political changes can impact cryptocurrency transactions and business operations

3. Methodology for assessing risks in cryptocurrency-enabled tourism companies: a comparative approach

Our study was based on responses from 120 participants, including tourism company executives, risk management specialists, and economic analysts from various regions of Ukraine, Poland, Romania. A total of 150 questionnaires were distributed online through professional networks and associations, with a response rate of 80%.

We selected Ukraine, Poland, and Romania as the subjects of this study due to their strategic locations and importance during a period of ongoing geopolitical instability. Ukraine, directly impacted by terrorist interventions from Russia, exemplifies a high-risk environment where political instability and security challenges profoundly affect the tourism sector. Poland and Romania, as neighbouring countries, are indirectly influenced by the conflict, experiencing shifts in travel patterns, economic pressures, and the challenges of accommodating an influx of refugees – all which shape tourism activities. These nations provide diverse yet interconnected perspectives, offering valuable insights into how traditional tourism businesses and those integrating cryptocurrency payments can navigate risks effectively during times of crisis.

The survey was conducted over four weeks (26/08/2024–22/09/2024) to ensure adequate participation and data collection. Questionnaires were distributed via email and professional platforms, targeting professionals in the tourism industry. Responses were gathered using an online survey tool, allowing participants to complete the questionnaire at their convenience. To encourage honest and unbiased responses, the survey was conducted anonymously, with no personal or company-identifiable information collected.

The questionnaire consisted of two parts:

Section 1:

- Demographics and business profile;
- Type of tourism business;

- Company size and location;

- Years of experience in the industry.

Section 2:

Risk evaluation respondents were asked to rank the following risks on a 5-point scale (1 - Very low impact, 5 - Very high impact) based on:

- Likelihood of occurrence;
- Severity of impact;
- Preparedness of the company to address the risk.

List of risks evaluated (Table 1):

- 1) Political instability in key destinations
- 2) Changes in travel restrictions due to international conflicts
- 3) Terrorist activities or civil unrest affecting travel routes
- 4) Changes in visa policies or border regulations
- 5) Economic sanctions or embargoes
- 6) Currency devaluation in key markets
- 7) Natural disasters influenced by geopolitical factors

The scores for each risk were averaged and weighted to reflect their proportional significance. These weighted scores formed the basis for the percentage distribution displayed in the risk interrelation diagram, providing a clear representation of how each risk category impacts traditional tourism companies relying solely on fiat currency transactions.

A similar survey was conducted with the group of participants, following an introductory text explaining the anticipated impacts of integrating cryptocurrency payments in a tourism company. This preparatory step ensured that participants had a clear understanding of the potential risks, opportunities, and operational changes associated with adopting cryptocurrency as a payment method.

Introduction to the impact of cryptocurrency payments in tourism:

«Dear Participants,

The tourism industry is rapidly evolving, with digital innovations playing a significant role in transforming traditional practices. One such innovation is the integration of cryptocurrency payments. These payment methods, enabled by blockchain technology, offer several potential advantages, such as faster transactions, enhanced security, and access to a broader customer base. However, they also introduce certain challenges, including regulatory compliance, market volatility, and cybersecurity risks. This survey aims to explore the impact of adopting cryptocurrency payments on various aspects of a tourism company's operations. As you respond, please consider how such payments might influence financial management, customer satisfaction, technology adoption, and overall business strategy.

Thank you for sharing your insights, which will contribute to a deeper understanding of this emerging trend in the tourism sector». We anticipated that the number of participants in the second survey would significantly decrease. This reduction was expected for two main reasons: firstly, some participants might lack the willingness or time to participate in a second round of surveys; secondly, others might have limited awareness or understanding of the cryptocurrency business in general.

As a result, we distributed 300 questionnaires to ensure the participation of 120 respondents, achieving a 40% response rate. The research period extended 23/09/2024-17/11/2024.

List of risks evaluated (Table 3):

- 1) Operational risks;
- 2) Financial risks;
- 3) Cybersecurity risks;
- 4) Legal & compliance risks;
- 5) Reputation risks;
- 6) Market risks;
- 7) Customer risks;
- 8) Liquidity risks;
- 9) Technology risks;
- 10) Geopolitical risks.

The results are illustrated in Figures 1 and 2 and are presented below (Fig. 1).

The primary risks for such companies revolve around political and economic instability in key regions of operation. Political instability and terrorist activities (20% and 15%, respectively) significantly impact travel routes and customer demand. Changes in visa policies and border regulations (10%) and currency devaluation (10%) create barriers to attracting tourists and conducting business efficiently.

Additionally, international sanctions and trade embargoes (15%) can disrupt core business processes, while natural disasters influenced by geopolitical factors (15%) add another layer of unpredictability (Fig. 2)..

For companies adopting cryptocurrency, the primary focus is on cybersecurity risks (28%), as ensuring the security of digital payment systems is critical. Financial risks (16%) and market volatility (13%) are also significant, as these companies rely on the stability of cryptocurrencies and blockchain infrastructure. Geopolitical risks (15%) remain relevant but manifest differently, such as through legal restrictions on cryptocurrency usage. Furthermore, legal and compliance risks (8%) and reputation risks (6%) are key considerations, stemming from public perception and regulatory challenges in cryptocurrency operations.



Fig. 1. Risk categories and their interrelations in a tourism company accepting payments in fiat currency

While both models share certain risks like geopolitical issues (15% for crypto and 20% for traditional), the traditional tourism company has a higher emphasis on travel-related issues like visa policies, border regulations, and international conflicts, whereas the cryptocurrency model focuses more on cybersecurity, financial risks, and market challenges. The risks in the crypto model seem more operational and technological, while the traditional model places more importance on external geopolitical and economic risks.

CONCLUSIONS

The research demonstrates that geopolitical instability and financial uncertainty have a significant impact on the tourism sector. Integrating cryptocurrency exchange businesses provides a viable solution to these challenges, offering enhanced payment flexibility and global accessibility. This integration highlights the growing importance of cryptocurrency in mitigating risks associated with traditional payment systems, such as currency devaluation and economic sanctions.

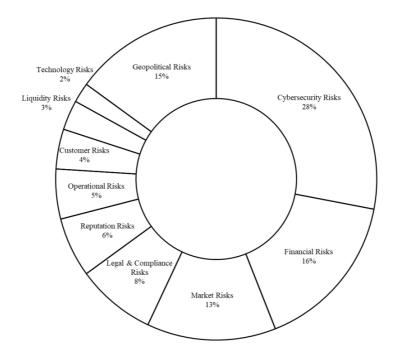


Fig. 2. Risk categories and their interrelations in a tourism company accepting payments in crypto currency

Furthermore, the study identifies the need for specialized skills and professional competencies among tourism professionals to effectively address these risks. These competencies include proficiency in cryptocurrency technologies, the ability to utilize risk assessment tools, and knowledge of compliance with international financial regulations. Such skills are essential to meet the increasing demand for innovation in tourism management.

The findings underline that combining cryptocurrency exchange businesses with tourism requires both technical expertise and adaptive strategies. This approach offers a clear strategic direction for cultivating the professional skills necessary to fully capitalize on the opportunities presented by crypto integration.

Overall, the integration of cryptocurrency emerges as a critical tool for addressing contemporary challenges, establishing a new benchmark for risk management, and advancing professional development within the tourism industry as well.

SUMMARY

This research examines the integration of cryptocurrencies into the tourism sector, identifying both the potential benefits and challenges of this convergence. Cryptocurrencies provide secure and efficient payment solutions for travellers, appealing to a tech-savvy audience while enhancing the attractiveness of tourism products.

The growing prominence of the cryptocurrency market has led to a rapid expansion of exchange platforms, driven by rising interest from both retail and institutional investors. However, with this growth comes heightened competition and an increase in regulatory and operational risks, necessitating the implementation of robust risk management frameworks by crypto exchange companies. This research underscores the importance of specialized professional competencies for both the crypto exchange and tourism sectors. These competencies are essential for effectively managing the complexities associated with cryptocurrency transactions and ensuring the efficiency, security, and compliance of operations within the evolving digital economy.

The research also emphasizes the need for professionals to develop expertise in the operational dynamics of cryptocurrency exchanges and the regulatory landscape surrounding digital currencies. Such expertise is crucial for overcoming the challenges of integrating cryptocurrencies into tourism and for ensuring the secure and compliant adoption of these technologies in travel services.

Considering these challenges, continuous professional development is imperative. As both the cryptocurrency and tourism sectors continue to evolve rapidly, specialists must enhance their skills to keep pace with technological advancements, regulatory shifts, and market developments. This ongoing education is vital to ensure that professionals can effectively navigate the complexities of cryptocurrency integration into the tourism industry, ensuring secure, compliant, and efficient business practices.

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