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**PART I – GENERAL SITUATION OF COOPERATIVES/MEMBERS**

1. **Characteristics of Cooperatives and Their Impact on Digital Transformation**

According to the survey results, most cooperatives in Vietnam are facing numerous challenges in the process of digital transformation. The main causes stem from the internal characteristics of the cooperatives such as operational experience, traditional business sectors, small capital scale, an aging labor structure, and low average income. These factors directly affect their ability to access, apply, and develop digital solutions in production and business.

In terms of operational experience, nearly 60% of the surveyed cooperatives have been operating for more than 5 years, with the group from 5 to 10 years accounting for 38.6% – a core force with better transformation potential due to operational stability. However, about 40% of the cooperatives are still quite young (less than 5 years old), currently in the stage of building their business foundation. Notably, cooperatives established less than 3 years ago account for 18.2%, reflecting a wave of newly established cooperatives aimed at meeting market demand. However, these units are also vulnerable in terms of resources and lack experience in adopting technology.

In terms of business sectors, nearly 60% of the surveyed cooperatives operate in agriculture – a traditional sector with generally low levels of technology application. This presents a significant barrier to digital transformation, yet also an opportunity if properly guided, as these cooperatives are closely tied to regional strengths and play a key role in rural economic development. Additionally, 52% of the cooperatives have begun participating in product distribution and export linkages, while 47.7% provide agricultural support services such as soil preparation and harvesting – reflecting the potential to expand into integrated service cooperative models.

Regarding total capital, 93.2% of the cooperatives have capital of less than VND 5 billion – with 43.2% having capital under VND 1 billion and 50% ranging from VND 1 to 5 billion. This limited financial capacity means that cooperatives lack the resources to invest in technology, management software, or technical infrastructure needed for digitization. Only 6.8% of the cooperatives have capital above VND 5 billion, indicating that the proportion of cooperatives with strong investment potential for digital transformation remains very limited. Meanwhile, the cost of deploying digital technology – even at a basic level such as electronic accounting systems, production management software, or building online sales channels – exceeds the capacity of most cooperatives today.

Another major challenge is the labor structure. Up to 77.3% of the cooperatives have less than 30% of their workforce under 35 years old. This reflects an aging workforce trend – with middle-aged and elderly workers making up the majority, who are less exposed to and find it more difficult to adapt to new technology. The lack of young workers also limits the ability to access, operate, and maintain digital solutions in practice. This directly affects the effectiveness of digital transformation and slows down the modernization of the cooperative model.

In terms of income, 77.2% of the cooperatives have an average post-tax income of less than VND 5 million per person per month. Among these, 22.7% of the cooperatives earn under VND 1 million, and 13.6% have no post-tax profit. Low income not only limits reinvestment capacity but also reduces motivation to implement technological solutions. Loss-making cooperatives struggle to access modern management tools or recruit quality personnel to support digital transformation.

Regarding the level of digital transformation, only 13.6% of the cooperatives stated they have completed the process, while 50% are in the implementation phase and 36.4% have not yet started. This reflects the reality that most cooperatives are still at the "awareness" stage, lacking clear plans, and only a few have reached a level of comprehensive technology application. The main barriers include: lack of awareness, lack of capital, lack of technological skills, and lack of a specific strategy.

1. **Current Difficulties and Challenges in the Business Operations of Vietnamese Cooperatives**

In addition to internal characteristics, the survey also highlights five major groups of difficulties currently faced by cooperatives in Vietnam: financial issues, management capacity, technological infrastructure, market access, and development strategy. Specifically, 61.4% of cooperatives face financial difficulties, primarily due to limited access to bank loans (78% lack sufficient collateral), a shortage of qualified financial personnel (70%), and limited capacity to collaborate with large enterprises. More than 52% of cooperatives lack infrastructure such as storage facilities, modern machinery, and automation tools. In terms of market access, 50% of cooperatives do not have an effective marketing strategy, lack market data, and do not have a professional sales team. Management is also a weak point, with 25% of cooperatives lacking capabilities in planning, recruiting high-quality personnel, and leadership skills. Additionally, 22.7% of cooperatives do not have a clear business strategy, mainly due to a lack of planning skills and long-term strategic vision.

Overall, the findings indicate that Vietnamese cooperatives are still in the early stages of their digital transformation journey and are facing numerous challenges both internally and externally. To improve, comprehensive support policies are needed in the areas of finance, training, technology, and strategic guidance. At the same time, greater empowerment should be given to the younger workforce to lead the digital transformation efforts within cooperatives.

**PART II. GAPS IN DIGITAL TRANSFORMATION AND THE LACK OF DIGITAL SKILLS AMONG COOPERATIVES AND YOUTH MEMBERS**

Part II of the YOUCOOL survey report focuses on identifying the key barriers in the digital transformation journey of Vietnamese cooperatives, particularly the gaps in infrastructure, finance, human resources, strategic planning, and access to support policies. In addition, this section emphasizes the role, current skill levels, and training needs of youth – the key force in driving the digitalization process.

1. **Challenges in Digital Transformation Among Vietnamese Cooperatives**

According to the survey, most cooperatives face numerous obstacles in implementing digital transformation. Among them, financial constraints were highlighted as the most significant challenge (68.2%), followed by technological infrastructure (63.6%), human resources and management capacity (50%), lack of a systematic strategy (50%), and limited access to support policies (47.7%). This indicates that most cooperatives lack the necessary resources to carry out digital transformation effectively.

Regarding technological infrastructure, 86% of cooperatives are using software that does not match their organizational model. Nearly 70% of internal data has not been digitized or is fragmented, making it difficult to manage and make informed decisions. Over half of the cooperatives do not have internal networks (LAN/WAN) or lack stable internet connectivity – especially in rural areas. Basic technological equipment such as computers and servers remains limited, severely hindering the adoption of software and digital tools.

Finance continues to be a systemic barrier. Up to 83.3% of cooperatives report that initial investment costs are too high, while 73.3% lack information about financial support programs. The shortage of technical personnel, integrated software, and the high cost of operating digital systems have made it difficult for 66.7% of cooperatives to train teams to deploy and operate digital technologies.

Human resources and management capabilities are also a weak point. A total of 81.8% of cooperatives report that their members and employees do not clearly understand the role of technology, while a similar percentage have never received formal training in ERP, CRM, IoT, or big data technologies. Around 72.7% lack the knowledge to implement digital solutions in practice, and more than 68% do not possess even basic IT skills. Notably, a significant portion of cooperative leaders are older (22.7%) and reluctant to change or adopt new technologies.

Strategic planning for digital transformation is another weakness. Half of the cooperatives have not integrated digitalization into their production–business strategies. Additionally, 68.2% of staff lack basic IT skills. Some cooperatives also set goals that are misaligned with actual needs or create unrealistic investment plans, leading to inefficiencies in technology application.

Finally, access to policies and support from the government or international organizations remains limited. Nearly 71.4% of cooperatives are unaware of policy information, 61.9% struggle with completing documentation to apply for support, and half cite complex administrative procedures.

Despite these obstacles, cooperatives are clearly expressing a strong demand for support. Specifically, 79.5% wish to receive funding for technology infrastructure investment; 75% need equipment; 68.2% need integrated management software. In addition, 75% want training in technology skills, and 56.8% seek support in building online sales platforms.

1. **The Role and Current Digital Transformation Skills of Youth in Cooperatives**

Youth are expected to be the leading force in driving the digital transformation of cooperatives. The survey reveals that 81.4% of young members believe they can support cooperatives in applying technology; 54% can contribute creative ideas; 50.4% are able to guide other members; and 46.9% are capable of connecting cooperatives with tech enterprises. However, despite this potential, youth still face many practical barriers.

Approximately 74.6% of youth lack tools to implement digital transformation, 63.2% lack the necessary skills or knowledge, and 46.5% struggle to adapt to new technologies. Additionally, nearly half have difficulty connecting with technology partners, and over 27% do not receive support from other cooperative members. This highlights the urgent need for training, tool provision, and the promotion of intergenerational collaboration.

In terms of technology knowledge, 59.6% of youth self-assess as weak in data analysis skills, 46.5% in using management software (such as ERP), and 44.7% have not kept up with new technology trends like AI, IoT, and cloud computing. Even basic digital skills such as office IT use, online teamwork, and creating/editing digital documents are still lacking.

Regarding analytical and decision-making skills, over 37% of youth report difficulties in using data for decision-making; 34.2% are weak in data collection and analysis; and 32.3% lack skills in identifying and solving problems in a digitalized environment.

Additionally, communication and digital collaboration skills also require improvement. 37.7% of youth say they don’t know how to clearly present ideas on digital platforms; 34.3% find it difficult to adapt to digital work environments; and 27.2% are weak in online teamwork.

In terms of practical implementation of digital transformation, 34.2% do not know how to apply technology to optimize work processes, and 31.6% are not flexible in shifting from traditional models to digital applications.

In general, youth in Vietnamese cooperatives still face many limitations in digital transformation skills – from technology application, data analysis, and digital communication to the actual implementation of digitalization in operations. To foster the sustainable development of cooperatives in the digital economy, it is essential to enhance training, provide technical support, and improve digital capacities for young members, enabling them to become the pioneering force in the digital transformation of cooperatives in Vietnam.

1. **Digital Transformation Training Needs of Youth in Cooperatives**

Youth in Vietnamese cooperatives currently face a significant lack of digital transformation skills and knowledge, which greatly affects the effectiveness of technology adoption. Nearly 60% lack data analysis skills, close to 47% struggle with using management software such as ERP, and more than 44% have not kept up with modern technologies such as AI or IoT. Additionally, their abilities in data-driven decision-making, online teamwork, presenting ideas on digital platforms, and implementing digital workflows are still limited.

Despite these challenges, more than 37% of youth show strong potential to adapt if given adequate support. The survey also reveals a high demand for training, with the most in-demand topics including: application of technology in cooperative management (63.2%), e-commerce (57%), data analysis (53.5%), digital communication (44.7%), and advanced topics such as digital transformation leadership, performance evaluation, and information security. These insights provide a crucial foundation for designing suitable training programs to improve the digital capacity of the younger generation.

Part II of the report illustrates that cooperatives lack synchronization in key areas including finance, technology, strategy, and human resources. While youth show promise, they currently do not have the skills needed to lead the digital transformation process. For cooperatives to achieve sustainable development, a concerted effort is required from the Government, supporting organizations, tech companies, and the cooperatives themselves – particularly in making meaningful investments in training and empowering young people.

**PART III – CONCLUSIONS AND RECOMMENDATIONS**

Part III of the report focuses on proposing solutions to address the gaps and challenges in the digital transformation journey of cooperatives in Vietnam, with the goal of promoting sustainable development and enhancing the competitiveness of cooperatives in the digital economy. The recommendations include: overcoming financial barriers, upgrading technological infrastructure, improving human resource capabilities, building comprehensive strategies, supporting access to policies, and developing digital competencies for youth – the core driving force of digital transformation.

1. **Solutions to Bridge Gaps in Cooperative Digital Transformation**

Financial Constraints: Most cooperatives face difficulties in securing investment capital for technology due to high upfront costs and complicated loan procedures. Proposed solutions include: establishing long-term financial support programs from the government, simplifying loan procedures, and connecting cooperatives with private and international funding sources.

Technological Infrastructure: Many cooperatives lack appropriate technological equipment, specialized management software, digitized data, and stable network connectivity. Recommendations include: supporting the upgrade of IT equipment, improving internet connectivity, digitizing internal data, developing management software tailored to different types of cooperatives, and expanding telecommunications infrastructure in rural areas.

Human Resource and Management Capacity: Most cooperatives lack technological skills, and their management teams are not fully aware of the importance of digital transformation. Solutions include: offering in-depth training in digital technologies (such as ERP, CRM, IoT, and Big Data), supporting the recruitment of technology experts, designing practical training programs tailored to the specific needs of each cooperative, and raising leadership awareness.

Lack of Comprehensive Digital Transformation Strategies: Many cooperatives implement technologies in a fragmented manner, without clear goals or plans. There is a need to guide cooperatives in building digital transformation strategies aligned with their business operations, identifying suitable technologies, sharing successful models, and providing strategic consulting tailored to specific sectors.

Access to Support Policies: Nearly half of cooperatives struggle to access support from the government and international organizations. Solutions include: developing a centralized information portal, simplifying registration procedures, providing advisory services to assist with application documentation, connecting cooperatives with support organizations, and establishing dedicated support groups.

1. **Solutions for Developing Digital Transformation Skills for Youth in Cooperatives**

Technology Skills: Youth in cooperatives currently lack the skills to apply technology in management and production. The proposed solution is to organize intensive training programs on data analysis, management software, and provide hands-on opportunities through internship programs. Additionally, a support network among cooperatives should be established to share experiences and promote effective digital transformation.

Data Analysis and Decision-Making Skills: Many youths in cooperatives lack data analysis and data-driven decision-making skills, with over one-third rating their competence as poor. It is essential to organize training courses in data analysis, data visualization, and AI/Big Data. At the same time, cooperatives should be supported in building real-time data collection and analysis systems. Partnerships with specialized organizations can also help cooperatives effectively apply data science in production and business.

Digital Communication Skills: Training programs should be implemented on remote work and communication through platforms such as Zoom, Teams, and Google Meet. In addition, digital inter-cooperative projects should be organized, combining support groups and mentoring programs to provide comprehensive assistance and enhance remote working capabilities.

Leadership and Digital Transformation Management: Leadership training courses on digital transformation should be organized for youth, alongside the development of a "Young Digital Leaders" model. Youth should be encouraged to participate in real-world digital transformation projects and be empowered to take the lead in innovation activities.

Digital Implementation Capabilities: Nearly one-third of cooperative youth face challenges in transitioning from traditional models to technology-based applications. To address this, youth should be supported in participating in practical digital transformation programs, provided with instructional materials tailored to the specific characteristics of each cooperative, and encouraged to collaborate with technology organizations to implement pilot projects that facilitate access to and evaluation of new technologies.

**3. Communication and Training to Raise Awareness**

Organize local workshops, launch communication campaigns on the benefits of digital transformation, and develop simple, accessible instructional materials. Training programs should be tailored to different target groups—management personnel, production members, and technical specialists—with content relevant to each role.

Recommended training courses include:

* Application of Digital Technology in Management and Production
* Basics of Data Analysis
* Advanced Data Visualization and Data-Driven Decision Making
* AI/Big Data Applications in Cooperatives
* Leadership in Digital Transformation

To promote digital transformation, cooperatives should be supported in developing software infrastructure for real-time data collection. Initially, specific needs by sector should be assessed to design appropriate software - for example, agricultural cooperatives need crop cycle management, while transport cooperatives need vehicle coordination. Technologies such as IoT, AI, and Big Data should be integrated to optimize operations and improve decision-making. Data security is also critical and requires both technical safeguards and compliance with legal regulations.

In addition, partnerships with universities, research institutes, and tech companies will enhance cooperative capacity. Collaborative programs should focus on practical training and updates on emerging technologies such as blockchain, cloud computing, and cybersecurity.

Mentoring programs with experienced mentors are also a long-term solution. These should be flexible in format (in-person or online) and evaluated regularly to ensure effectiveness. These approaches will help cooperatives strengthen their technological capabilities and build a solid foundation for digital transformation.

**4. Comprehensive Strategy to Accelerate Digital Transformation of Vietnamese Cooperatives**

Strategy: A combination of three key pillars:

* Alliance as the Strategic Anchor and Vision Enabler
* AI Layer as a Digitalization Companion for Organizations and Individuals
* Toolkit and Support Infrastructure

The main objective is to accelerate the digitalization of cooperatives through the collaboration between the Vietnam Cooperative Alliance (VCA), Halieus, and other partners, leveraging the power of AI technology, open-source resources, and practical training. The strategy proposes building a shared technology platform with real-time data capabilities, enabling easier access, sharing, and use of digital tools.

From an economic and operational perspective, the strategy helps cooperatives reduce transformation costs, avoid vendor lock-in, save manpower, and develop local tech service models that connect cooperatives with digital services. Standardizing tools for inventory, training, and reporting will increase the operational efficiency across the entire cooperative value chain.

The strategic orientation includes integrated AI training, the use of “Digital Ambassadors” (students supporting cooperatives), and a hands-on, collaborative training system. AI plays the role of a digital companion - from simple chatbots to no-code automation tools, and ultimately interactive AI agents that enhance analysis, decision-making, and real-time technical support.

**Detailed Strategy Components**

* **Alliance as the Strategic Anchor and Vision Enabler**

The Vietnam Cooperative Alliance (VCA) and project partners are positioned as the core force in this role. With its network and expertise, VCA will lead the development of a common vision, provide direction, and define a national roadmap for digital transformation in cooperatives. Initial actions include mapping internal cooperative structures, developing sector-specific strategies based on practical contexts, identifying suitable technologies, promoting open-source tools, and setting KPI indicators.

In addition, the Alliance will coordinate knowledge sharing, pilot training programs, and support local adaptation of implementation activities. In the medium to long term, VCA will focus on developing national digital tools, an inclusive AI strategy, managing an open knowledge center, and shaping cooperative-friendly policies. Expected outcomes include a centralized knowledge platform, core training programs, an integrated digital roadmap, and a network of strategic partners - laying the groundwork for scalable and sustainable digital transformation nationwide.

* **AI Layer as a Digitalization Companion for Organizations and Individuals**

The strategy envisions AI as a “digital companion” for cooperatives, individuals, and the Alliance, deployed in three stages:

**Short Term**: AI is introduced as a chatbot that personalizes learning, guides digital transformation roadmaps, and simulates practical experiences for learners. It also proposes tailored digitization plans for cooperatives.

**Mid Term**: AI is applied to automate repetitive tasks such as invoice generation, meeting summaries, and inventory alerts through user-friendly no-code or low-code platforms. This reduces manual workloads and enhances operational efficiency.

**Long Term**: Interactive AI agents will act as collaborative nodes connecting cooperatives across ecosystems, integrating data from different systems, supporting decision-making, and automating multi-platform workflows. The AI framework will follow open principles, be customizable, promote digital equity, and ensure data security.

This AI layer supports not only training and operations but also contributes to building a robust AI ecosystem for cooperatives—empowering them to innovate, use data effectively, and improve their competitiveness in the digital economy.

* **Toolkit and Support Infrastructure**

The strategy aims to build a **Toolkit and Support Infrastructure** as a shared technology platform for cooperatives across Vietnam - serving as a critical pillar of digital transformation. The goal is to establish an open digital ecosystem where cooperatives and students can test, apply, and optimize technologies in real-world settings.

The toolkit will include foundational software such as ERP, CRM, inventory management systems, accounting software, communication tools, and cloud storage. It will also integrate advanced technologies such as decision-support AI, no-code/low-code automation tools, traceability solutions, and interactive AI platforms.

The accompanying infrastructure, managed by the Alliance, will provide a **sandbox environment** for cooperatives to practice and pilot tech solutions before actual deployment. It will also offer storage, training materials, and a shared data repository containing report templates, automation examples, and best practice workflows. This model ensures safety, interoperability, and scalability aligned with each cooperative’s digital maturity. Ultimately, this platform not only helps reduce investment costs but also empowers cooperatives to take ownership of innovation, enabling sustainable growth and increased competitiveness in the digital economy.

**Implementation Roadmap**

**Short Term:**

* Conduct an inventory of existing tools and usage models
* Launch a basic sandbox for testing
* Begin piloting core tools with selected cooperatives

**Mid Term:**

* Expand the toolkit with open-source and AI-integrated tools
* Establish technical partnerships for hosting and support
* Deploy students and “Digital Ambassadors” to support cooperatives on-site

**Long Term:**

* Co-develop cooperative-owned platforms based on identified needs
* Scale up interactive AI agents across sectors and workflows
* Maintain and enhance the toolkit through open governance and community feedback