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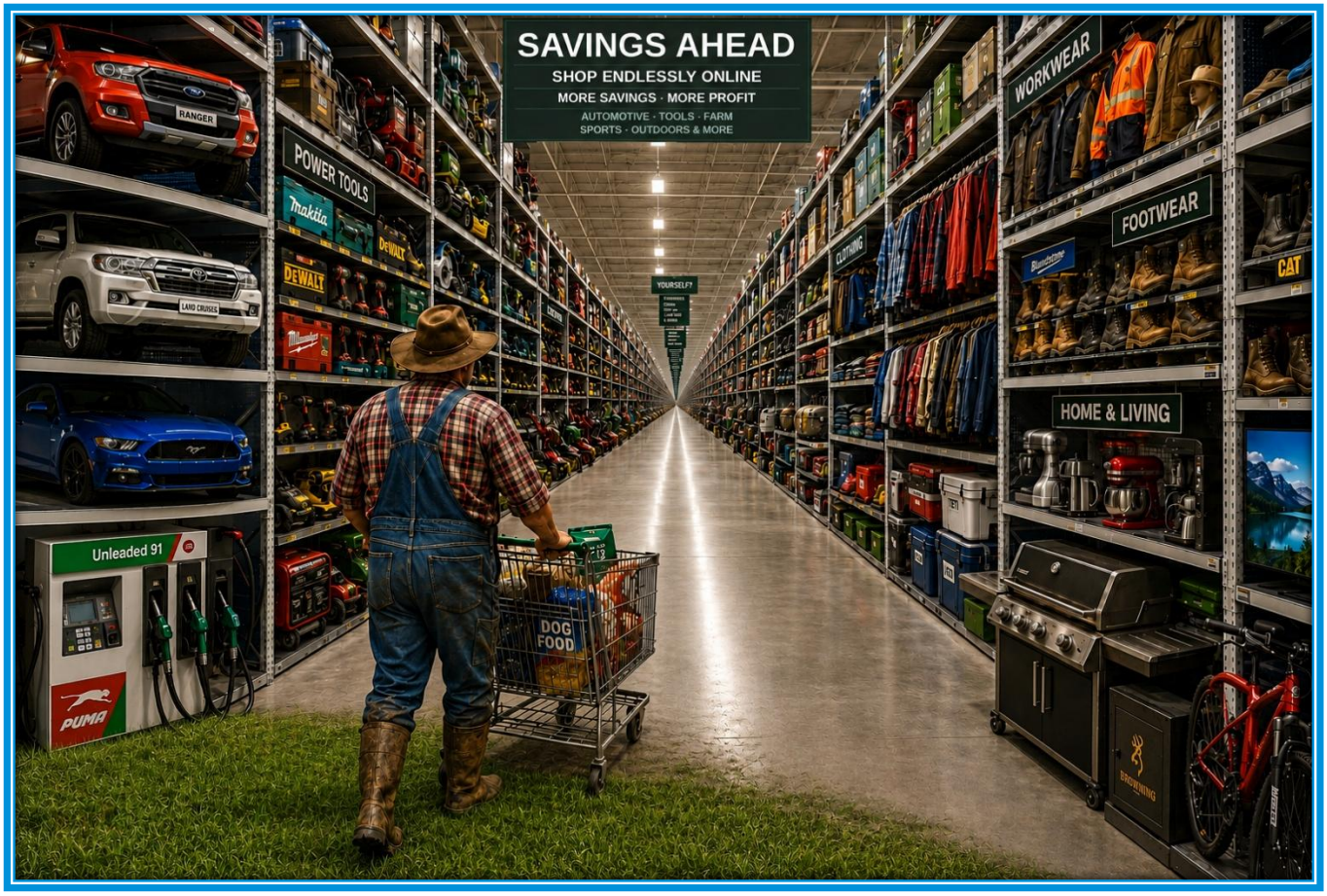

The One Stop Profitability Shop: Cooperative Endless Aisles in Rural New Zealand

Kellogg Rural Leadership Programme

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Jacquelyne Hawtin

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1. Executive Summary

New Zealand farmers are operating in a volatile and costly environment where profitability depends on managing all expenditure very carefully. Agricultural cooperatives have long helped members do this through collective buying power on farm inputs. Most cooperatives are yet to fully realise the broader profitability opportunities for their members, that are sitting within their partner networks.

This research explores how cooperatives can extend that value by unlocking access to the favourable pricing across a wider range of product and service categories through partner organisations - using members' existing cooperative credentials. The model described here is a cooperative endless aisle. A quantitative case study modelling a sample of six procurement categories for a median New Zealand dairy farm identified an estimated annual saving opportunity of $20,230 from member pricing alone. This was across categories including vehicles, electronics, fuel, and electricity. These are all necessary products and services that are not traditionally stocked by rural cooperatives.

The research draws on a literature review, semi-structured interviews across farmers, cooperative partnership managers, and partner organisations, and a case study. Four key findings emerged. First, price matters but rarely closes the deal. Trust, quality, and convenience were found to be the decisive factors, particularly in high-stakes categories. Second, cooperative credibility is a commercial currency. Partner organisations confirmed they forgo margin to access it, because the cooperative members trust reduces their customer acquisition cost in ways they cannot replicate. Third, convenience is what makes the model scalable. A federated login using cooperative credentials to access partner platforms directly removes the search and coordination costs that make procurement time consuming and expensive. Fourth, adoption is the critical challenge, and the sales representative relationship is one of the most effective levers to address it.

Two novel findings not addressed in existing literature were identified. The first was a structural gap between the cooperative credential holder and the person responsible for procurement decisions on farm. The second was the significant cost of technology integration for partner organisations. Development can exceed one million dollars. This is prohibitive for many partners and can create an inconsistent member experience between those partners that can invest and those that cannot.

New Zealand is well-positioned to lead delivery of this model. Cooperative density is high, digital infrastructure is improving, and the trust networks required are already in place with cooperatives. The opportunity does not require building from scratch. It requires strategic alignment to extend what already exists.

2. Acknowledgments

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3. Introduction

Definitions

Where established academic definitions exist, they have informed these definitions as they are used in this research. Where terms are colloquial or applied in a novel context, definitions have been constructed to reflect their specific use. Readers should refer to these definitions when interpreting findings, as some terms carry different meanings in broader contexts.

- Cooperative Member: An individual or entity that holds membership or shares in a cooperative and receives the associated benefits.
- Partner Organisation: An organisation that has a formal agreement with the cooperative to provide pricing advantages and other benefits to cooperative members.
- Cooperative Credentials: A set of login details issued by the cooperative to a member, enabling access to their cooperative account and online purchasing.
- Federated Login: The use of existing cooperative credentials integrated to access a partner organisation's digital platform, enabling members to browse, compare, and purchase products or services at negotiated member pricing without creating a separate account.
- Endless Aisle: A model that extends a member's access to products and services beyond what the cooperative directly stocks or supplies, through a network of partner organisations. Purchases made through the endless aisle are consolidated into a single cooperative statement and payment.
- Search and Coordination Costs: The time and labour costs associated with sourcing, comparing, and managing procurement across multiple suppliers or channels

3.1 Cooperative Theory and Agricultural Context

When farming to make a living off the land, volatility is inevitable, and profitability is not guaranteed. Farmers can mitigate volatility and improve profitability through operational management, strategic investment, deliberate commercial decisions, and disciplined cost control.

The formation of agricultural cooperatives has long served as a structural response to market vulnerability. This provides members with greater buying power than they would have independently, helping reduce input costs (Cook & Grashuis, 2018). Staatz (1987) identifies that the strategic advantage of cooperatives is their capacity to overcome the vulnerability independent farmers have: leveraging economies of scale and having the market power to match their trading partners.

Historically, this cooperative advantage has been concentrated in the procurement of farm inputs and sale of these to members at fair prices. However as cooperative structures evolve, the competition between cooperatives and corporates grows and member demands increase and diversify through mounting challenges (Valentinov, 2007). There is growing recognition that the scope of the cooperative benefits can be extended beyond farm inputs and Cook & Grashuis (2018) identified that cooperatives must adopt flexible strategies that are responsive to the diverse needs and expectations of their members.

The assertion that negotiated pricing can improve profitability is clear. The KPMG Agribusiness Agenda (2025) highlights digital and effective procurement as an under-exploited opportunity for farmers to grow and secure their profitability.

3.2 The Partnership Model

New Zealand's agricultural sector has several major cooperatives including Farmlands, Fonterra - Farm Source, Ravensdown, Ballance Agri-Nutrients, FMG and more. Collectively they represent a significant share of farmer participation across the primary industries (Institute of Directors New Zealand, 2026). Several of these cooperatives have extended their value proposition beyond core farm inputs by forming partnerships with external organisations and negotiating favourable pricing and access conditions on behalf of their members. The cooperative acts as the trusted intermediary by reducing the trust barrier between farmers and commercial partners (Wolf & Steul-Fischer, 2023). Internationally, cooperatives are extending member benefits beyond traditional supplies by establishing third-party partnerships (Salvatori & Carini, 2024).

Extending Category Range

The cooperative model holds member trust and scale potential. Through strategic management this trust and scale can extend well beyond the procurement of everyday farm production inputs. By negotiating exclusive purchasing arrangements with partner organisations across a broader range of categories, including capital equipment, services and everyday operating expenditure, cooperative buying power can encompass the full operating cost base of a farm. This concept combines the autonomy of independent farming operations with the purchasing leverage of a large-scale organisation. It allows the cooperative to penetrate partner markets outside of traditional rural supplies and farm input categories. Where group buying power is successfully leveraged, this extended reach can contribute directly to on-farm profitability through cost management and repurposed time cost savings.

Endless Aisle

In retail, the term "endless aisle" describes the customers access to product categories beyond what a retailer physically stocks. This is typically enabled in store by asking a team member to order on a consumer's behalf. Digital channels that connect customers to extended ranges from partner or third-party suppliers exist (Salesforce, 2026). While the term used in retail lacks a formal academic definition, it is widely used in commercial contexts to describe range extension without the overhead of physical inventory.

No current peer-reviewed literature applies the endless aisle concept to agricultural procurement or cooperative partnership models specifically. The principle itself can translate directly. Cooperatives have already formed partnerships with organisations outside of their traditional category scope, with favourable pricing and purchasing conditions negotiated already on behalf of members. An endless aisle model with partner organisations can extend the cooperative's value proposition beyond the store shelf and into a broader, digitally accessible range of product and service categories, reducing search and coordination costs.

Figure 1 illustrates how a cooperative partnership model can operate - the model that is discussed in this research. This is a three-way value exchange: the cooperative lends its credibility and access to member base to the endorsed partner organisations, partners receive incremental sales and revenue, and members benefit from preferential pricing, discounts and access they could not otherwise secure independently.

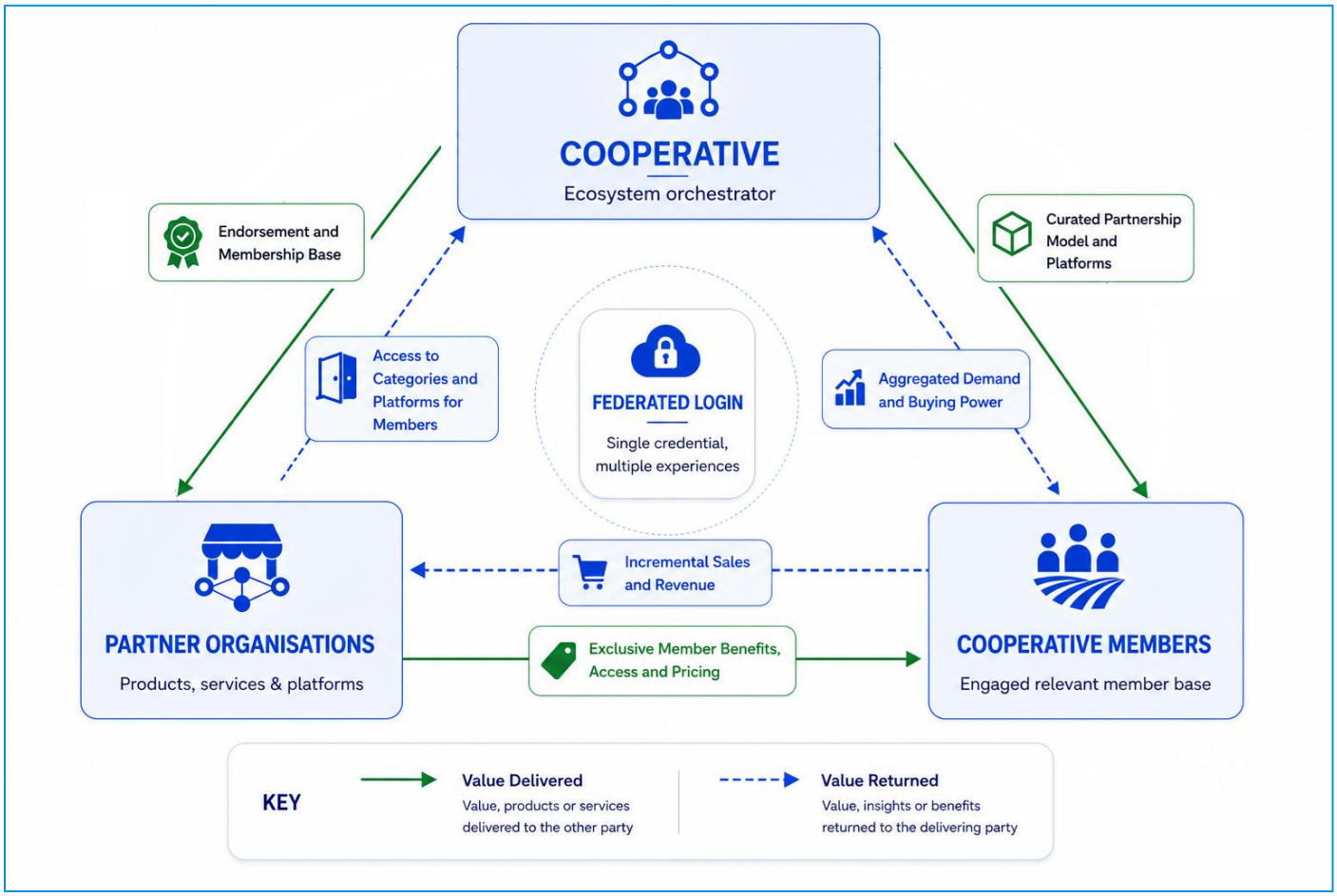

Figure 1: Partnership Model

3.3 The Channel Adoption Challenge

Wolf & Steul-Fischer (2023) determined that consumer channel choice is shaped by channel characteristics, consumer needs, and situational factors. Customer and product characteristics indirectly influence channel decision. The rapid accessibility and advancement of mobile devices and digital technology have compounded this complexity, adding channel selection as a distinct consumer decision alongside the product, service, and retailer (Li et al., 2017).

The Cost of Traditional Procurement

To procure farm inputs and additional categories at the best price takes time. This is compounded with procurement fragmented across many suppliers. Engaging and purchasing from a new supplier or organisation requires a consumer to 'switch' which typically involves signing up, creating credentials, visiting a store or at least provide several personal and business details (Li et al., 2017). Managing these various engagements and remembering the credentials, the purchase and receipts for later are just some of the coordination costs. Procurement has a cost associated, especially when branching outside of the cooperative's buying model where best pricing is not guaranteed. Price comparisons, travel time, lining up, across multiple retailers all converge to true costs in the form of time and labour. In a corporate farming operation this is typically a complete role or team, and at small-scale, it is typically done instead of a valuable farm or household jobs.

New Channel Adoption

For everyday consumers outside of rural New Zealand, purchasing is moving online due to the convenience of having multiple digital channels available on our devices. Having consumers adopt these new digital channels is complex (Wolf & Steul-Fischer, 2023). For farming operations to realise partnership pricing benefits on any scale digitally requires adoption. For Farmlands specifically, the way that members make use of the Farmlands partnership is predominantly by visiting partner stores and using their Farmlands card, with a very small percentage available to transact online (Farmlands Card Partner directory, 2026). Shang et al. (2021) demonstrates that channel adoption behaviour is shaped by many personal characteristics of a consumer and by structural, political, and economic conditions of the broader rural sector, which in this case is rural New Zealand. Wolf and Steul-Fischer (2023) demonstrate that simply improving how easy the channel is to use to purchase is insufficient to drive consumers to adopt a particular channel or adjust how they regularly procure and purchase goods. To gain meaningful use of partner organisations, the factors that directly influence channel choice in rural New Zealand must be understood and addressed by cooperatives. To improve access for members at scale, cooperatives must consider increasing the digital access to partner organisations and implement robust channel adoption strategies such as Rogers' Five Stage Model (2003).

3.4 Leveraging Cooperative Credentials

Like most retailers, many cooperatives now operate digitally with their members, utilising online credentials. Using Farmlands as an example, the partnership model broadly still requires the cooperative member to visit a partner store and purchase directly. Digital channels could optimise this process by leveraging the members cooperative online credentials and developing login access to partner products and services online, removing the need to 'switch' suppliers, sign up, or visit another business and coordinate multiple online purchasing credentials.

Federated Login

Federated login is a proven opportunity to leverage existing cooperative credentials to facilitate access for cooperative members through partner organisations purchasing platforms. Simply by being a member of the cooperative, members can have extended category access outside of the cooperative and utilise the negotiated pricing structure of partner organisations digitally. Allowing members to trust they are getting the best purchase price across categories.

When a cooperative sets up a federated login model with a partner Organisation, the intended outcome is reduced search and coordination costs for members (Gensler et al., 2012) and incremental sales to the partner through endorsement and access (Kim & Kim, 2021). The cooperative is effectively lending their trust and credibility to the partner by enabling and endorsing an additional digital channel for members to procure goods. For members this is one more tool they can utilise to support their farm profitability as well as achieving established and favourable pricing at partner organisations they can trust.

3.5 The Research Gap

This research addresses a gap in the cooperative literature, which has focused predominantly on collective farm input procurement and supply chain functions, overlooking the potential for cooperatives to leverage their credibility with farmers to arrange access to a diverse pool of partner organisations with favourable pricing as a direct mechanism for profitability improvement. It examines the further profit potential available to cooperative members through a partnership-enabled endless aisle model - one that uses federated login via existing cooperative credentials to extend access to categories and savings beyond the cooperative's own range and into partner product ranges and categories. It also identifies what advantages rural New Zealand cooperatives hold to implement and lead other sectors in delivering this model.

4. Aims and Objectives

The aim of this research is to explore how cooperative partnership models that provide favourable pricing can leverage the existing cooperative credentials of cooperative members to provide access a partner organisations range, to create a digital endless aisle assortment to enhance on-farm profitability. I will identify what advantages cooperatives in rural New Zealand have to lead other sectors in delivering this model. For the purposes of this research, traditional retail wholesale/supplier relationships will not be discussed. The exploration will be done through the following objectives.

4.1 Objective 1

Evaluate how favourable pricing negotiated on behalf of the member, impacts farm profitability.

4.2 Objective 2

Evaluate how credibility transfer, via cooperative endorsement of partner organisations, impacts farmer trust and adoption of partnership model.

4.3 Objective 3

Investigate how federated login and extended category access reduce search and coordination costs, creating additional profitability opportunity for cooperative members.

4.4 Objective 4

Identify the advantages cooperatives in rural New Zealand have, to lead the delivery of partner organisation endless aisle access via federated logins.

5. Literature Review

This literature review examines existing research relevant to the three interconnected areas that converge to create a model that can enhance farm profitability. These are agricultural cooperative partnership models, endorsement to facilitate engagement with favourable pricing, and thirdly, digital adoption in rural contexts. A fourth area drawing on peer-reviewed literature where available and acknowledging where it is not, explores the advantages cooperatives in rural New Zealand have to lead delivery of this model.

No peer-reviewed literature addresses the federated login model as a defined concept, and no research applies endless aisle extended category access to cooperative or farming contexts specifically. Instead, the review draws on adjacent theoretical constructs to establish any theoretical foundations and to identify the gap it addresses.

5.1 Cooperative Theory and Agricultural Context

Agricultural Cooperative Theory

There is compelling rationale for the prevalence of cooperative organizations in the agricultural sector – farmers face unique environmental challenges that make cooperative structures more critical than other industries. Valentinov (2007) explains that agricultural markets are subject to price volatility, product perishability, and most producers have a collective reliance on a very small number of processing parties who possess a greater balance of power when compared to themselves. Valentinov (2007) explained that cooperatives overcome both core disadvantages of small farms by aggregating scale for buying power and establishing the leverage to trade effectively with large processing partners. For example, collective of small-scale farm operations who supply milk to major processors such as Fonterra.

Theoretical foundations validate this and detail the traditional cooperative's purpose which has typically been limited scope, diversity and strategy. Cook and Grashuis (2018) found there was an increasing diversity of member views and objectives in modern day cooperatives, as well as a more sophisticated organizational structure and strategy which means the original purpose of the cooperative can achieve wider success but also be more complex with competing tensions between individual member objectives and organisational objectives. Overall modern cooperatives have an increasingly positive impact on farmers and their profitability (Salvatori & Carini, 2024).

Cooperative Scope

Several cooperatives in New Zealand have extended their scope as a farm input buying group by partnering with organisations outside traditional farm supplies and extending the cooperative advantages into product and service categories where farmers would typically lack purchasing power, for example the Farmlands partnership with BYD (Build Your Dreams) electric vehicles (Farmlands Card Partner directory, 2026) and the Farm Source relationship with Mitsubishi (Farm Source Website, 2026). This emerging structure can solve a unique challenge identified by Valentinov (2007) that diversity of member purposes historically precluded this type of cooperative procurement as such capital equipment purchases only met occasional and specific needs of independent farmers. Cook & Grashuis (2018) added that for cooperatives to develop and sustain the role of extending into partnerships to add product categories, the cooperative organisations must adopt responsive and flexible strategies that adapt to distinct member needs promptly but concurrently maintain the cooperatives core purpose as a buying group. Achieving these new requirements is improved by increasing the diversity of the

offering while concurrently maintaining a key focus on the strategic objectives of cooperatives (Cook & Grashuis, 2018).

5.2 The Partnership Model

Credibility and Pricing

Wolf and Steul-Fischer (2023) demonstrated that trust, credibility and endorsement are monetisable assets and when shared, organisations are willing to forego margin in exchange for endorsement, because it lowers typical customer acquisition costs and improves conversion.

Co-operatives operating in New Zealand's rural sector, such as Farmlands, demonstrates this beneficial penetration into other categories for its members. They do this through negotiated partnerships with organisations outside of traditional farm inputs who provide exclusive cooperative member pricing on a diverse range of categories such as fuel, technology, retail, hardware and travel as shown on the web-based Farmlands Card Partner Directory (2026). The diversity of this Partnership Model means Farmlands can offer members access to favourable pricing on products and services that are not procured and offered through the cooperative retail and sales channels, but can directly impact their members' ability to mitigate the risks of volatility by implementing cost control measures to improve the chances of profitability for their members farming operations.

Rural New Zealand can be inherently sceptical and what makes this strategy successful for Farmlands is the trust and credibility with their members over many decades. Members view their cooperative as an expert, so when they endorse a non-rural partner organisation, the alignment between the two entities can validate to members that they should make use of pricing advantages, while the cooperative is also increasing the rural reach and engagement for the partner organisation.

Lending Credibility via Marketing Endorsement

Consumers rely on expertise from an endorser to assess whether they are qualified and credible to make assertions and Farmlands' deep expertise and alignment in the operational realities of agriculture prove it understands products, usage, and economic pressures that farming operations and members face (Kim & Kim, 2021). Cheng et al., (2024) cite that official endorsements can impact consumer perceptions of credibility through reputation and carry more legitimacy when marketing is co-developed and co-branded to increase purchasing intent and Zhang, Zhang and Li (2021) added that effective endorsement increases brand association and awareness. For example, an aligned marketing campaign with Farmlands cooperative and a partner organisation can leverage both Farmlands trusted rural expertise, combined with the partner's product or service expertise. These benefits can result in an increase of incremental sales and new customers at an endorsed organisation, reinforcing the value of the commercial relationship by creating mutual benefits for partners and members (Kim & Kim, 2021).

Extending Category Range

Staatz (1987) established that a core cooperative advantage is the ability to economise on the volume of members transactions and create market power to level the collective with large corporates. This is logic that can extend beyond traditional farm inputs to encompass all operating expenditure a farming business incurs. Fulton and Giannakas (2013) demonstrated that cooperatives do positively influence member pricing in the procurement of traditional farm inputs, which can provide a theoretical basis for extending the partnership pricing model to categories outside of explicit farm inputs such as vehicles, fuel, technology, research and

development, and beyond. If leveraging credibility and endorsement increases incremental sales by reducing new customer acquisition and conversion costs for partner organisations, the margin retained can be repurposed to offer members favourable pricing, further supporting adoption. Because endorsed partners gain access to an engaged and trusting member base, incremental sales volume through the cooperative channel can offset any margin concessions while still delivering commercial growth (Kim & Kim, 2021).

Globally

Evidence that cooperatives already operate partnership enabled benefits at scale is not limited to New Zealand. A 2024 investigative report *"Cooperatives and their members: the opportunities and benefits of collective ownership"* was commissioned by the International Cooperative Entrepreneurship Think Tank (ICETT) and conducted by European Research Institute on Cooperative and Social Enterprises (EURICSE). Ten of the world's largest cooperative networks who collectively represent 64 million members were surveyed and found that 70% of respondents already facilitate member access to better deals with third-party organisations as an indirect benefit of membership (Salvatori & Carini, 2024). This suggests a substantive reason for exploring an extension of what cooperative practice has already begun – additional avenues to improve benefits and profitability potential for its members.

5.3 The Endless Aisle

'Endless Aisle' is a colloquial retail term referring to the extension of products and service categories beyond what is physically stocked. No formal academic definition exists, though industry practitioners explain it as a process enabling customers to order products not normally stocked or currently unavailable (Salesforce, 2026). Practically, the model combines drop shipping, where goods are shipped directly to customers without the retailer taking physical possession (Randall, Netessine & Rudi, 2006), and improved accessibility through a varied channel assortment (Wolf & Steul-Fischer, 2023). The absence of peer reviewed literature on endless aisles or agricultural examples signals a genuine gap and opportunity in the market for an organisation to fill.

Access Efficiency

There are multiple methods of accessing endless aisle products and services through retailers. Commonly it is requested through a staff member at the physical retail store (Brynjolfsson et al. 2013). This method is subject to high search and coordination costs for the consumer as it requires the consumer to engage with multiple retailers or organisations physically. These costs are reduced procurement is digital (Gensler et al., 2012). Bakos (1997) verified there are opportunities to create value for consumers outside of just pricing, by reducing search friction and improving ease of access through digital measures.

Digital platforms can be considered hybrid structures that reduce buyer search costs by enabling 24/7 remote access to a broader product range, lower prices, and therefore more efficient purchasing (Bakos, 1997). Brynjolfsson et al. (2013) found the addition of accessible digital channels outside of traditional retail improves retailer success, especially when already existing and trusted physical networks are paired with that digital channel. This illustrates that a cooperative retail network could use its current success and add digital channel access for members with a greater chance of adoption success. Klemperer (1995) adds that reducing switching costs unlocks additional value, and cooperative endorsement addresses many of the anticipated risks that typically prevent switching such as concerns about quality or trust, by actively supporting and encouraging engagement with the partner organisation.

The opportunity procurement efficiency creates is not easily visible in academic and farm economic literature but exists in a farmer's operational model. Farmers typically manage relationships with numerous suppliers, requiring significant time and energy each week on procurement. A corporate farm often has entire resources and teams dedicated to procurement, so the possible reduction of search time and coordination cost from consolidation may be significant for small-scale and corporate farms (KPMG Agribusiness Agenda, 2025).

Leveraging Cooperative Credentials

Most cooperatives assign account credentials to members so they can interact with their account details online. Using these cooperative provided credentials to access partner platforms creates an additional trust layer, adds convenience and reduces administrative effort, making the endless aisle digital channel more accessible and desirable to cooperative members. The federated login model supports adoption success as it removes barriers and enables channel, product and pricing access. By removing the need to engage and register with a new organisation, it reduces the search and coordination costs that Brynjolfsson et al. (2013) identify as friction in online retail. While federated login access is utilised in market in commercial contexts, its concept and application to cooperative partnership models and member credential access has not been formalised in academic literature, signalling a future strategic opportunity for cooperatives to deliberately focus on and leverage to expand their product access and range without diluting credibility, provided the cooperative maintains trust with its members. New Zealand's unique combination of cooperative density and an existing engaged member base creates advantageous conditions for utilising a federated login model that could position rural New Zealand as a leader in delivery.

5.4 Digital Technology Adoption

Current Technology Use

Deriving the benefits digital channels have to offer relies on technology and channel adoption. In rural New Zealand smartphone use exceeds 90%, computer use is almost universal and 50–60% of dairy farmers use some form of digital farm management tool daily(DairyNZ, 2024-2025). Xero accounting software and online banking are among the highest adoption rates from that same group (DairyNZ, 2024-2025). Testimonials refer to an improved ability to conduct business online, but the critical point is use; most have the hardware but lack the habit (Federated Farmers Farm confidence survey, 2026).

Adoption Examples

Even without major technological and digital penetration in a market, Annamalai & Rao (2003) demonstrated that technological innovation in rural settings is possible and can achieve scale and success in the most challenging of conditions. Between 2000-2003 the Indian Tobacco Company implemented the e-Choupal programme - a technology solution in 11,000 villages servicing one million farmers. A hardware and software solution saw web kiosks that gave price transparency and acted as procurement and sales tool for farmers in the area. The implementation dramatically reduced costs through travel time and transparency for farmers when selling their products and in turn increased their profitability. Initially 1900 web kiosks were deployed, and more were added until 2010 finalising a total of 6100 kiosks servicing four million farmers. The hardware became obsolescent when the software was transferred to a smartphone platform but the value created continued to exist. This illustrates adoption is possible when technology is accessible and the benefits are clear.

Adoption Characteristics

Adoption of any digital technology channel is critical to realise any potential profitability benefits (Shang et al. 2021). A Cooperative Endless Aisle model with federated login for procurement of products and services would require a strong adoption plan, even when favourable pricing is clear. Wolf and Steul-Fischer (2023) caution that simply providing or improving a channel and its characteristics such as service, quality and ease of use does not necessarily result in increased adoption or a change in behaviour or supplier due to individual customer needs and situational circumstances. Technology adoption in a farming context consistently shows that cultural, relational, and trust factors alongside structural, political, and economic conditions are more influential in successful adoption than the technology availability itself (Shang et al. 2021). These findings were derived from an agricultural sustainability technology example but can be applied to any rural technology implementation for an initial understanding that adoption willingness evolves over time based on the interaction of the farmers individual characteristics and their interactions with technology.

The findings can shape how technology is introduced and diffused within the industry (Shang et al. 2021) assert that when developing an adoption plan, an understanding of the farmer decision-making is crucial, alongside an understanding of the other influential dynamics exist in the industry. Another factor noted in the same research was that larger farming operations, followed by higher farm staff education rates are the most likely adopters, driven by a greater number of specialist staff, greater purchasing scale benefits to be realised and technology that supports corporate management structures. Any cooperative leaders developing a federated login model to enable endless aisle procurement should place great value on understanding and targeting the members whose factors directly correlate to an improved likelihood of new channel adoption, and segmenting the membership base accordingly (Wolf & Steul-Fischer, 2023).

5.5 The Cooperative Advantage

Sales Representative Relationship

Rural research suggests that the sales representative relationship is the largest barrier to digital platform adoption but according to Shang et al. (2021) can also be the single largest enabler of adoption for a consumer. Sales representatives are not just a salesperson to a farmer; there is an established relational trust and reliance on the relationship, and this is supported by findings by Wolf & Steul-Fischer (2023) that showed relational and trust factors influence channel choice. In a farming context, the sales representative is the trusted advisor to farmers, and the relationships can span years or decades and outlast farm succession. A significant proportion of farm input procurement involves one or more sales representatives, especially when the purchase has a technical advice or productivity element involved such as animal health, seed, fertiliser or crop protection. If a digital solution could be perceived as 'replacing' the sales representative there is a high chance it could face resistance. This should be considered, but does not diminish the value of the solution, especially in categories where the products are not advice dependent.

Conversely, the sales representative can be instrumental in adoption. To support adoption understanding Rogers' (2003) five stage innovation decision process model can be applied. The five stages are knowledge, persuasion, decision, implementation and confirmation. This model suggests that any technological adoption, (including the agricultural industry, despite its nuances), must be viewed as a multi-stage process rather than a single event or decision. The practical implications of this were identified by (Weersink & Fulton, 2020) who argue that changing behaviour for technology adoption is driven by more than profit. The first four steps of Rogers Model (2003) rely heavily on awareness and trust development. Leveraging the sales representative relationship as an endorsement tool, due to the existing trust, could fast track the transition through steps one to three to then place

emphasis on supporting the reinforcement confirmation stage. The Sales representative would be instrumental across all stages through consistent encouragement to use the channel.

Cooperative Capability

Agriculture in New Zealand is innovative in the way it leverages collective purchasing and cooperative organisational models but is not as innovative when leveraging digital interfaces and online platforms (Cook & Grashuis, 2018). Brynjolfsson et al. (2013) research shows that the addition of digital channels with existing trust increases how comfortable customers are switching to and using these channels as long as the trust linked to the cooperative identity is present and preserved. Global examples show this is possible.

The ICETT commissioned report findings demonstrate the capacity for agricultural cooperatives to use digital infrastructure to improve member profitability outcomes. In South Korea, the National Agricultural Cooperative Federation (NACT) – called NongHyup, who represent 2.1 million farmers, deployed the 'Urban-Rural Co-Prosperity' initiatives. This was a digital infrastructure platform that bypassed intermediaries to deliver measurable cost reductions and improve profitability outcomes for members when trading by extending member access and reducing purchasing costs. (Salvatori & Carini, 2024).

The Institute of Directors New Zealand (2026) cites that cooperatives account for approximately 20% of New Zealand's Gross Domestic Product. In the agribusiness sector, there are several major cooperatives including Farmlands, Ravensdown, Ballance Agri-Nutrients, FMG and Fonterra. The coverage across all primary sectors without considering smaller players means that most New Zealand farmers are already involved in and represented by cooperatives who have relationships with partner organisations and sometimes with one another. This shows cooperatives are very entrenched in a farmer led ecosystem. This ecosystem constitutes a trusted platform that can be leveraged to implement new digital technology and increase adoption (Valentinov, 2007). This is a valuable foundation that improves adoption that other businesses or sectors that do not have the preexisting collectives would need to build from scratch, giving rural New Zealand a competitive advantage by comparison.

6. Methodology

To achieve the objectives, this research employed a mixed-methods approach, combining a literature review, semi structured interviews, thematic analysis and a case study. While some light quantitative analysis was completed as part of the case study, the research was focused on understanding trust, behaviour, adoption and profitability opportunities, specifically how cooperative models can impact farmer's procurement efficiency and profitability.

Researcher Positionality

As a participant in the Kellogg Rural Leadership Programme with professional connections to cooperatives in New Zealand rural sector, I acknowledge my familiarity with the models carries risk of unconscious bias and advocacy of the model. To mitigate this, semi structured Interviews were held with stakeholders involved in other areas of Agribusiness to capture many perspectives. A range of stakeholders were selected, ensuring there were some with no connection or relationship to cooperatives. Interview questions were open, not leading, approved by the Lincoln University Ethics Committee and thematic analysis drew on stakeholder language and themes not subject to researcher interpretation.

Participant Selection & Sample Size

Three cohorts who could provide an independent lens to the research question were selected. A total of nine participants were interviewed across the cohorts. This included four Farmers, three Cooperative Partnership Managers and two leaders from partner organisations. The largest cohort interviewed was New Zealand farmers, with varying levels of cooperative engagement (heavy users, light users, and sceptics). The other two cohorts were interviewed to give an alternate lens to themes and validate or disprove the pricing, credibility, technology and adoption assumptions. These interviews provided an alternate perspective to compare with the findings from farmers. Given the exploratory nature of this research the interviews were conducted with a focus on depth of insights, instead of statistical representation. Not all planned interviews were completed. The process was concluded at saturation points, when no further meaningful themes were emerging.

Ethical Considerations:

All participants were informed that interviews were voluntary, anonymous and informed that consent to participate could be withdrawn at any time, including withdrawing any responses. Prior to the interview participants were provided with the Kellogg Rural Leaders consent form. The interview was conducted via the participants preferred method including telephone, video call or in person. Permission to take notes and record video and audio was sought before and after the recording of the interview began. Within the research all responses were treated confidentially, and no participant or organisation is identified in the report.

6.1 Literature Review

A literature review was conducted to understand current information available and establish theoretical and foundational context to position this report locally. The scope was not limited to Agribusiness as the number of journals with significant relevance to agribusiness and rural context was light. The literature review focused on the below key areas:

- Cooperative and Group buying models
- Lent Credibility, Endorsement and Behavioural Adoption
- Commercial Architecture of Partnership Models and pricing

- Federated Login Models
- Cooperative Advantages in rural New Zealand

To establish theoretical foundations, the primary and preferred sources were peer reviewed articled drawn from the Lincoln University library database.

To position this report locally in New Zealand, publications from DairyNZ, The Rural Connectivity Group, Farmlands, Federated Farmers and KPMG were used.

The term partnership was not a compulsory search term and regularly the term 'buying group' was used interchangeably with greater success, as this closely reflects the function of cooperatives.

6.2 Qualitative Semi Structured Interviews

Semi structured interviews were the primary information collection method used for this research. There were three independent cohorts interviewed. The specific questions for each cohort varied but question themes were aligned. The open questions allowed flexibility to probe and explore responses of interest, recognising that not all relevant information sourced can be anticipated in advance of the interviews. All data collected through interview responses was analysed for themes using Braun and Clarke's (2006) six-phase framework. This includes becoming familiar with the data, generating codes, identifying themes, reviewing the themes, defining the themes and then writing the report.

Interview Themes:

- Experiences with partner pricing vs market pricing
- Does your cooperative endorsement or pricing influence your purchasing decision
- Willingness to adopt new partners with federated login access
- Barriers: price transparency, perceived quality, relationships and category.
- Value perceptions: convenience, discounts, trusted contracting
- Other procurement channel reliance
- Adoption barriers and opportunities

6.3 Case Study

An anonymised case study was conducted using publicly available pricing and member discount information from five partner organisations whose product categories are essential to New Zealand farm operations but are not commonly stocked or supplied by rural cooperatives. Both the farm and partner organisations are anonymised. This decision was made to ensure the case study neither unfairly advantages nor disadvantages any specific partner organisation and is consistent with the approach disclosed to interview participants.

Discounts reflect actual publicly available member pricing, and estimated annual spend was modelled for a median New Zealand dairy farm of 164 hectares running a herd of 451 cows, reflecting national averages (DairyNZ, 2024-2025).

The primary purpose of the quantitative case study was to model the profitability potential impact for members engaging in a partnership model that includes pricing advantages, endless aisle and federated login. The quantitative analysis compared member and non-member pricing across several key expenditure categories. Search time and coordination cost savings were acknowledged to highlight the non-financial savings associated with frictionless ordering through channels with federated login access compared to traditional procurement channels that have search and coordination costs. The scenarios modelled are illustrative of the concepts, based

on estimated use and not a live example. The intention is to illustrate indicative scale and value to the qualitative themes discussed.

6.4 Use of Artificial Intelligence

Claude AI (Anthropic) was used throughout this research to assist in locating and identifying relevant academic literature. It was used to support the coding process prior to thematic analysis, to refine the clarity and style of some written sections and support proofing. All analysis, decisions, arguments, conclusions, and the determination of what findings mean remain the researcher's own.

Claude AI and ChatGPT were used to generate visual representations of written work. These included a front-page image and a diagram illustrating the partnership model. Both were generated from the researcher's own written descriptions and conceptual frameworks.

7. Findings

The insights below will explore how the findings derived from the semi structured interviews and case study align with and extend on the literature review.

The semi structured interviews uncovered several themes that supported the literature review, namely that price is a consideration but trust and quality close the deal, convenience is a core value, and trust drives adoption.

There were two novel themes identified in the interviews that will be discussed that highlight possible barriers to adoption not initially identified in the literature review:

1. The structural gap between the cooperative credential holder and the person responsible for on-farm procurement decisions.
2. The development cost barrier for partner organisations.

7.1 Objective 1

Evaluate how favourable pricing negotiated on behalf of the farmer, impacts farm profitability.

Price Leads but Trust, Credibility and Quality Close the Deal

All participants except one named pricing as an important decision point, but rarely the deciding one. One partner organisation noted that even with very favourable pricing for members, price is tempered by loyalty, quality, and convenience. They also noted that the significance of pricing as a decision driver varies by product category and the magnitude of savings available. All farmers interviewed said they would make purchasing decisions based on pricing for a low stakes product like wire but not favour pricing in a higher stakes category. Examples given included vet services, animal welfare products and key pasture production inputs, where long term trust and quality is paramount.

Commercial Logic for the Partner Organisation

Interviews confirmed that partner organisations are willing to forgo margin in exchange for credibility and trust from a cooperative member through the partnership. One partner organisation noted they understood how important savings are to farmers and invested in specific platform development to enable favourable pricing across 100,000 SKUs, displaying savings in dollar values rather than percentages, both online and on member statements. Another partner organisation noted that reaching rural customers independently is difficult and costly, with low conversions rates when done alone. They agree with endorsement theories that partnering with an agricultural cooperative was the most effective route to market to farmers. Favourable everyday pricing drives incremental sales volume with cooperative members more efficiently than direct marketing, reinforcing the reduced customer acquisition cost logic.

Visible Profitability

Several dairy farmers serviced by sales representatives who utilise one or more cooperative partner pricing benefits spoke about the impact on their profitability and demonstrated a thorough understanding of expenses as a percentage of milk solids and could recall savings accumulated across a given period. This awareness and habitual use demonstrate that farmers with rep relationships have the access, knowledge and habit to leverage partnership benefits to their full potential. Conversely, an unserviced farmer who procures independently did not

track savings at all. Savings may surface in annual accounts, but if the overall result is satisfactory, there was no dwelling on missed opportunities.

7.2 Objective 2

Evaluate how credibility transfer, via cooperative endorsement of partner organisations, impacts farmer trust and adoption of the partnership model.

Transferable Trust

All groups interviewed confirmed cooperative endorsement lowered their perception of risk and increased purchase intent. Partner organisations verified that partnering with a cooperative delivered "brand love and credibility among farmers that they could not ever build themselves" and would not attempt to due to the cost. Partner organisations were clear that the credibility the cooperative has built over decades is something they could not replicate independently, and that partnering was far more cost efficient than attempting to do so. Farmers confirmed they assumed the cooperative had conducted careful due diligence on all partners, and commercial partnership managers confirmed this, noting the cooperative would only enter arrangements with reputable organisations.

All partner organisation interviews confirmed that the primary reason for partnering with the cooperative and offering favourable member pricing was to access the credibility transfer.

The Fragility of Trust

A partnership manager interviewed, cautioned that credibility transfer for pricing benefits requires careful ongoing management. Even one partner failing to honour agreed benefits for members at point of sale can erode trust and credibility for the cooperative, its partners, and the entire partnership model. A second and related risk raised was pricing integrity outside the partnership. If a partner offers equivalent or better pricing to non-members through their standard channels, the perceived value of cooperative membership can be threatened. The farmers interviewed confirmed having an additional advantage is the foundation of the model's value proposition and key reason for being a member.

7.3 Objective 3

Investigate how federated login and extended category access reduce search and coordination costs, creating additional profitability opportunity for cooperative members.

Convenience, Consolidation and Coordination

Farmer and partnership manager interviews confirmed digital tools can create value beyond pricing and when there are digital channels available their search and coordination times are reduced further. Consolidated payments and federated login access were identified as high value features, particularly for small-scale and family run farms. The value of these features was not felt equally across all farming structures however, with corporate operations experiencing a different set of barriers to accessing and realising these benefits, which are explored in the following sections.

The Consolidation Conflict

A partnership manager noted that payment consolidation can introduce an unintended barrier for some farmers, particularly when personal spending categories appear alongside farm input expenditure on statements. This

can increase administration effort and create unintended financial reporting complications. Some farmers confirmed the consolidation of personal and business spend may inhibit willingness to utilise pricing benefits and reduce adoption. Importantly, this conflict was not present for small-scale farms, where personal and business expenditure is more commonly managed together. This was because the reporting implications can be more easily managed and adjusted on a smaller scale.

Removing Search Friction

Partner organisations confirmed that accessible digital channels paired with trusted physical networks improve purchasing outcomes by removing search friction. The investment partner organisations have made in integrating existing cooperative credentials reflects their confidence in this finding. One partner reported that sales are ten times higher when a member uses a federated login compared to creating new credentials and signing up independently. Another confirmed that streamlining access improved performance across all key sales metrics including engagement, basket size, items per transaction, and incremental sales both online and instore. Partner organisation login data also revealed that there is substantial research effort behind purchasing decisions, with most farmers browsing and comparing options before completing a purchase online or often, later instore. Partner organisations recognise that any tool that streamlines or removes that research stage creates value for both the farmer and themselves.

Small-scale versus Corporate

Purchasing behaviour differed between small-scale and corporate farming operations, and this has direct implications for how partnership benefits are accessed. A partnerships manager explained that corporate farms operate with established purchasing processes and dedicated teams. This means the people making procurement decisions or dealing with multiple suppliers processing, is often removed from those making commercial partnership or operational strategy decisions. This separation means consolidation benefits and pricing advantages are less likely to be noticed or acted on, and corporate operations are therefore less likely to engage actively with the partnership model. One corporate farmer noted an exception, that a saving of sufficient scale would be escalated to senior leadership and the right processes would follow. This suggests that for corporate operations, the model is largely inaccessible to decision makers unless the financial benefit is material enough to warrant attention at a senior level. It was mentioned there is a perception that they are already receiving best price and unaware of the additional time, coordination and savings potential through the cooperative.

A small-scale farmer offered a clear contrast, noting they manage all personal and household expenditure alongside farm spend so cooperative pricing benefits apply across a wider range of categories and the value it brings is immediately visible and beneficial to the same person making the decisions.

7.4 Objective 4

Identify the advantages cooperatives in rural New Zealand have, to lead the delivery of partner organisation endless aisle access via federated logins.

The Knowledge Barrier

Awareness of cooperative partnership benefits was a consistent barrier that varied by rep access, farm scale, and digital habit across all participants. Partnership manager and farmer interviews confirmed that lack of awareness is one of the main reasons most farmers do not access the available partnership benefits. Across both small-scale and corporate operations, interviews conformed the sales representative relationship shaped

awareness. Farmers noted they rely on their rep and are reluctant to explore independently for fear of damaging a relationship built over time. One farmer identified education level with technology adoption and business acumen, noting staff with higher education investigated new channels and opportunities more and suggested adoption and awareness strategies should be targeted accordingly.

The Sales Representative as an Adoption Lever

Interviews with partnership managers and farmers confirmed that the farmer and sales representative relationship can be deliberately leveraged to implement the partnership model. While the relationship supports awareness building through day-to-day interactions, the greater opportunity lies at stage two, persuasion, where farmers are forming opinions and are most susceptible to trusted influence before committing to trying new things. Most farmers interviewed confirmed they would try a new procurement and purchasing approach if their sales representative recommended it.

The Unserviced Farmer

Farmer interviews uncovered that some farming operations are too small to receive regular rep visits where there is no return on investment for a company, meaning they are structurally excluded not only from the rep relationship itself but from a key awareness channel that partnership model and federated login benefits could be successfully communicated. Without this relationship, these small-scale farmers coordinate procurement across multiple channels independently, and many were unaware the scale of partnership benefits that are possible.

7.5 Novel Contributions

Two findings emerged from interviews that are not addressed by the theoretical frameworks used in the literature review. These represent the original research contributions of this study.

The Login Identity Gap

A significant finding that was not addressed when establishing the theoretical frameworks for this research is a structural gap between the cooperative credential holder and the person responsible for procurement decisions in a farming operation. Interviews revealed this is frequently not the case in farming operations. In corporate farming structures, procurement may be managed by an operations manager, farm worker, or dedicated purchasing role, while the cooperative membership and credentials are held by the farm owner or entity. On small-scale farms this is less common but still possible. In most cases, the farm holds the practical procurement and purchasing responsibilities, but the person who would practically use the federated login to access partner pricing and extended product categories does not hold the credentials and may not be aware the benefits exist.

Partner Technology Integration Costs

A second finding not addressed in the literature is the cost and complexity of technology integration to enable the federated login. One partner organisation who had implemented this capability confirmed that the investment can exceed one million dollars. For smaller or regional partners this cost was prohibitive, creating a structural divide and differentiation of opportunity available within the cooperative partner network. From the farmer's perspective these partners were viewed as having a reduced digital offering comparatively.

7.6 Case Study Contributions

Table 1. An annual *cost comparison of member versus non-member pricing, across key procurement categories*.

Category	Pricing	Endless Aisle	Fed Login	Annual Costs			Other Benefits	Notes
				Non-Member	Member	Variance		
Fuel	✓	✓		$37,500	$34,920	$2,580	No price comparison requirement	15,000L diesel $2.50/L Including GST
Electronics	✓	✓	✓	$10,307	$7,328	$2,979	Reduced search and coordination costs, no travel requirement	3 x staff phones, 6 x monitors, 2 x air conditioning unit upgrades Including GST
Hardware	✓	✓	✓	$2,252	$2,080	$172	Reduced search and coordination costs, no travel requirement	Storage Furniture Equipment Including GST
Vehicle	✓	✓		$126,070	$113,463	$12,607	Reduced search and coordination costs	1 x Ute 1 x Personal vehicle Excluding GST
Electricity	✓	✓		$42,865	$41,150	$1,715	Reduced search and coordination costs. Consolidated utility bill	164ha dairy farm, 450 cows, once a day milking Including GST
Pasture Management	✓	✓	✓	$2,216	$2,039	$177	Consolidated payment	One year annual subscription Including GST
			Total	**$221,210**	**$200,980**	**$20,230**		
					Annual profit opportunity	**$20,230**		

The case study modelled annual procurement costs across six categories for median size dairy farm.

The largest single variance was in the capital expenditure vehicle category, followed by electronics and fuel. These three categories alone account for over 90% of the total modelled saving. Electronics and hardware were the two categories where a federated login was available, enabling digital access to member pricing without the need to visit a store reduces search and coordination costs in addition to the pricing benefit.

All examples represent essential farm operating expenditure that falls outside the traditional rural cooperative product range and is accessible through an endless aisle partnership model. The variance of $20,230 represents the indicative annual profitability opportunity available to a cooperative member who actively engages the endless aisle federated login model across their procurement (Table 1).

These figures are illustrative. Costs and discounts reflect publicly available member pricing at time of modelling. Total spend is estimated from a representative farm profile, not verified statement data.

8. Discussion

This research set out to explore the use of cooperative membership credentials to unlock additional access to favourable pricing and extended product access across a network of partner organisations to improve farm profitability. The findings confirm theoretical viability but also practical complexity. Across three cohorts and key themes, it was found that the federated login model is an incremental extension of a structure that already exists in New Zealand's agricultural cooperative sector. The central questions are what structural advantages rural New Zealand holds to implement, what conditions would enable the model to function well, and what profit opportunities are available to farmers if they engage in the model.

This discussion interprets the significant findings across each objective and draws connections between themes. Novel findings that emerged outside of the literature will be addressed as well as consideration of the implications for cooperatives, partner organisations, and farmers themselves. The four research objectives will be discussed in order, drawing connections across each objective as the findings reveal that price, trust, convenience, and adoption are interdependent variables.

8.1 Pricing as the Gateway, Not Destination

The Limitations of Pricing

The literature established a clear basis for cooperative pricing advantages that could be extrapolated across partner organisations and Valentinov (2007) demonstrated this was due to cooperatives overcoming the fundamental disadvantage of the individual farmer by creating collective market power. The research findings validate this foundation but with added complexity. All but one participant named price as one of the primary decision drivers but in practice it was rarely price that changed purchasing behaviour. Weersink & Fulton (2020) cautioned against assuming profit as a sole motivator because it oversimplifies adoption and undermines the importance of building awareness and trust through cooperative endorsement and the consistent realisation of benefits.

This tension between price as a stated priority and as the actual purchase decision maker is one of the most practical and significant findings in this research. Farmers interviewed consistently drew a distinction between low-risk farm input procurement. For low risk the price drove the decision more often versus higher stakes categories involving animal health, technical products, enduring products that required quality. Long standing supplier relationships were also a factor where the lowest price was not automatically the preferred purchase supplier. A partner organisation leader confirmed this noting that even with negotiated preferential pricing across more than 100,000 SKUs, they were aware that price was not always the decisive factor in all categories and that it was consistently tempered by loyalty, perceived quality, and convenience. Farmers added that when it was an ethical spend such at veterinary services, pricing was not a factor and instead trust and quality of care was the key determinant factor.

This has direct implications for how the endless aisle model should be positioned in market and implemented. Framing cooperative partnership benefits purely as a cost saving could be misaligned with how farmers make purchasing decisions. More accurately, cooperative partnership benefits reduce search friction across categories. Profitability is realised through consistent, accumulated savings rather than any single purchase decision.

Klemperer's (1995) switching cost theory is relevant in the agricultural industry. Switching costs in a farming context are not only financial but can also be relational and reputational with added high risks. For example, a farmer

who changes veterinary services to save money but experiences a poor outcome has not just incurred a cost, they have also compromised their animals and production.

Where the federated login model is being used to encourage farmers to switch procurement channels, it should be positioned and implemented in categories where farmers are already willing to compare price. Fuel, hardware, technology, and vehicles are all categories where the model removes search and coordination costs and enable savings to be realised.

The Visibility Requirement

A key difference from the farmer interviews was a divergence in profitability awareness between farmers with active sales representative relationships and those without. Farmers with regular rep visits demonstrated a clearer awareness of their rebate balances, their key expenses (sometimes even as a percentage of milk solids), and some actively tracked cooperative pricing benefits. This was possible because the sales representative actively surfaced these pricing opportunities for them.

Small-scale unserviced farmers reported no systematic tracking of procurement or possible savings outside of one-off rewards with purchase. These farmers were also coordinating 15 or more independent suppliers to fulfil their procurement needs, meaning the time available to compare pricing and optimise costs and process is consumed by coordination.

This divergence is important because it identifies where the confirmation stage of Rogers' (2003) five-stage adoption model breaks down. With no initial or ongoing reinforcement of the financial benefits for unserviced farmers the reinforcing loop of adoption, use, and repeat confirmation does not complete. One partner organisation identified this directly, investing in the development and marketing of dollar saving displays. They surfaced these in their login interface and media assets and marketed it directly to shareholders in the mediums they use (newspapers, social media and emails). This as a deliberate strategy to drive adoption and reinforce confirmation behaviour. This strategy that should be replicated across the partner network.

The broader implication is that profitability improvement through a federated login requires the farmer to be engaged and aware of the benefits available within the model and constant awareness that those benefits are materialising. The infrastructure of the model creates the opportunity but requires consistent use for benefits to be realised at scale.

8.2 Credibility as a Commercial Currency

Transferable Trust

The literature review established and grounded the theory of credibility transfer and endorsement by a trusted and expert source and findings confirmed this theory. The outcome of this is increased purchase intention and conversion (Cheng et al., 2024; Kim & Kim, 2021). This research further developed the theory in a rural context. In rural New Zealand the cooperative credibility is used as a commercial asset to build financial benefits for partner organisations and cooperative members. This is reinforced by Wolf and Steul-Fischer's (2023) finding that trust is a monetisable asset that partner organisations will forgo margin to access.

Practically this means that the model has a commercial structure that is self-reinforcing. When the cooperative endorses a partner, the partner's customer acquisition costs are reduced which frees up funding to be returned to farmers as favourable pricing. The favourable pricing, when realised, reinforces farmer trust in the cooperative and the partner organisation. That reinforced trust increases the cooperative's value to the next partner it recruits.

This model can increase the value for all involved with the cooperative's credibility functioning as the foundational currency.

The Trust Fragility

A critical practicality for implementing the concept was one of the key findings in this research that was not anticipated in the literature. Raised by a partnership manager, the risk of a cascading failure of trust. When a single partner fails to honour agreed pricing benefits it can erode farmer trust not only in that partner but in the cooperative and the broader partnership model. This is a systemic risk that must be managed.

The fragility of trust was identified as a globally recognised risk. The ICETT survey identified isomorphism and the erosion of third-party benefits distinctiveness as a pressing strategic challenge facing cooperatives today (Salvatori & Carini, 2024). Where a cooperative's value proposition becomes indistinguishable from a commercial loyalty programme because partners fail to honour agreed benefits, or offer equivalent pricing outside the partnership, the credibility that underpins the model begins to dissolve. This research found two distinct mechanisms through which that erosion can occur.

The first is operational when a partner fails to honour agreed pricing and breaks the confirmation stage of Rogers' (2003) adoption model. Without confirmation the reinforcing loop that drives repeat behaviour does not complete. The second is structural when a partner offers equivalent or better pricing to non-members through their standard channels. This damages the member-only advantage and the cooperative's credibility which is difficult to rebuild.

The literature on credibility transfer focuses almost completely on benefits and how endorsement can increase trust and purchase intention, but it doesn't address the counter. trust takes years to build but moments to destroy. In a cooperative context where the profitability proposition relies on the member accessing and repeatedly using the pricing benefits it depends on the confirmation stage of Rogers Five stage Model. One failure point can be disproportionately damaging. This finding has direct implications for partner selection, contract management, benefit verification and ongoing compliance processes. Partner compliance to the model is foundational to the success.

This suggests that the governance of partner relationships requires rigour, ongoing compliance monitoring, and a clear escalation pathway for pricing discrepancies. In practice this can be labour intensive, which lends support to the digitally enabled endless aisle that is not subject to human decision making at point of sale. A digital solution does not depend on every staff member at every partner organisation knowing and understanding, pricing is transparent to all members, can be resolved quickly and monitoring non-adherence can be done remotely and automatically in a digital world.

What makes this risk significant in a New Zealand context is the concentration of the member base. Rural communities are small and connected. One failure can be shared across a network quickly, amplifying the reputational damage beyond the individual transaction. Trust is identified as a foundational currency of the cooperative model (Valentinov, 2007). This research confirms that in a partnership-enabled endless aisle context, governance of partner compliance is a strategically required function.

8.3 Convenience, Consolidation and Coordination

Coordination

Bakos (1997) established that digital platforms support profitability for members beyond pricing through the reduction of search and coordination costs. The findings from this research validate that proposition in a farming

context but highlight segmentation within that. The value of touchpoint consolidation and reduced coordination costs is viewed as more important for small-scale farms than for corporate farming operations because they don't typically have the procurement teams, resources and buying power that corporate farms do.

Individual farmers interviewed described consolidated payments and federated logins as high-value features. These are time and administrative savings that translate directly into hours that can be spent on farm management duties rather than paying staff. The value of having supplier accounts, pricing benefits, and procurement records through one digital method is understood by these farmers and stands out as a differentiating feature of the model. Because these farmers currently manage some coordination manually across many channels and relationships, further consolidation or more partners added to this model is beneficial.

Corporate farming operations viewed this concept differently. Interviews found that many corporate farms operate with specialist roles and distinct responsibilities, including purchasing decisions, accounts payable, and financial analysis, typically held by different people. The person sourcing an input is rarely the person processing the invoice or reviewing the cost, and in many cases is rarely a farmer. This structural separation means consolidation benefits are invisible to those who could act on them. This diminishes the perceived benefit for a corporate farming structure.

The cooperative partnership model, as it is currently structured, is optimised for the individual or small-scale farmer. This is an important consideration because the proportion of small-scale or family run farm operations in New Zealand is declining as more farms are acquired into corporate and iwi structures. These structural differences have direct implications for how the federated login and partnership model is communicated and designed for different farming operations, and represent a gap to address in any implementation plan.

The Federated Login

The research confirms that the federated login model provides digital convenience and is a procurement mechanism that can have positive commercial results. Partner organisations who had invested in federated login capabilities reported measurable improvements across all key sales metrics: engagement, basket size, items per transaction, and overall incremental sales growth. These outcomes supported Brynjolfsson et al. (2013) framing that digital channels paired with existing trusted physical networks improve purchasing outcomes.

The research also showed that for many farmers, their preferred channel for browsing and research is increasingly digital, even if the final purchase is completed in store. Therefore, the federated login creates value at the research stage, not just at the point of transaction. It is enabling farmers to review partner pricing, product specifications, and compare options using their existing cooperative credentials. This is possible with no need to create a new account, navigate a registration process, or lose visibility of pricing entitlements. This ease increases the likelihood farmers investigate new partners and purchase through those partners. This supports the search and coordination cost reduction that Bakos (1997) theorised, cemented in a cooperative procurement context.

Partner organisation also benefits from the ease created by the federated login model. One partner who has a federated login model implemented for a cooperative and other companies reporting:

> *"Sales per customer are ten times higher when shopping directly through the customer portal, in comparison to when they have to register independently or guest check out each time, so we put the effort and investment into developing the capability for important groups"*

The investment required to build this integration is substantial and a structural barrier than can be prohibitive for some partner organisations. This consideration is discussed in depth in section 8.6.

The Consolidation Conflict

Purchasing through a cooperative enabled endless aisle model results in a consolidated payment and statement, generated by the cooperative. One important finding not anticipated by the literature emerged from interviews with a partnership manager. The presumed benefit of statement and payment consolidation can create unintended administrative and financial implications for members when personal spending categories appear among business spending.

In a family farming context where the household and the farm business are often looked after by the same person, there was a reported desire to utilise the cooperative partnership benefits for consolidation. Any decoupling of personal and business expenditure could be managed later in favour of accessing the benefits. For corporate farms the blurring of business and personal expenditure categories can complicate accounting, and financial reporting. This potentially prohibits use of benefits in order to save complication and administration later.

This finding partially impacts the argument that extending cooperative pricing advantages to all categories of expenditure is beneficial for everyone and will increase uptake. In principle it makes sense that a farmer who accesses cooperative pricing across many categories is reducing their total cost of living and therefore improving their overall financial position and profit potential. In practice the integration of personal and business expenditure in a shared statement can create complexity that can outweigh the value of the pricing benefit for some. This is not an argument against extending the model, but an opportunity to improve its design with the end user in mind. Understanding how different farming entities interact with the model, and how consolidated statements categorise and present business and personal expenditure, should inform how the model is structured and implemented.

8.4 The Rural New Zealand Advantage

Cooperative Density

The NACF example demonstrates that agricultural cooperatives can lead technology-enabled access at scale when the membership base, trust, and digital infrastructure align. Rural New Zealand has those conditions in place. Why rural New Zealand could lead in delivering the federated login model can be partly answered by the current structure of the agricultural sector and its strong cooperative presence. As established, cooperatives account for approximately 20% of New Zealand's GDP and several major cooperatives cover most of the sector. This a market structure with coverage that other sectors cannot replicate quickly.

The significance of this density is not just scale. The most significant factor is the membership and ownership structure of cooperatives. Cooperatives in New Zealand have hundreds of thousands of active members that have trading relationships with partner organisations. These are established trust networks that benefit any new model seeking to scale. Any organisation attempting to build an equivalent platform from scratch would require substantial time and capital investment. New Zealand cooperatives already carry the momentum of an established, trust-endorsed member base that is receptive to cooperative-led innovation.

The interviews confirmed this advantage from the partner and farmer perspective. Farmers see themselves as the cooperative. Partners identified the cooperative member foundation and their engagement and loyalty as the primary commercial rationale for partnership. These conditions set up a platform enabled model for success: an existing, trust-endorsed customer base that a partner can access without individual customer acquisition cost. New Zealand's cooperative density means these conditions can exist at scale across the agricultural industry.

Digital Readiness

The digital adoption literature identifies possible cultural, relational, and trust barriers that can limit technology uptake across various contexts. The research by DairyNZ (2024) data and interview findings, suggest that rural New Zealand has moved past several of the barriers identified. In the dairy sector, Smartphone use exceeds 90%, computer use is almost daily and universal, and digital financial tools such as Xero and online banking are seeing high adoption rates. The digital hardware and habits are established.

The challenge is behavioural, not infrastructural. The solution requires redirecting existing digital habits toward farm procurement, which is significantly less complex than the scenarios described in most rural adoption literature. Most literature investigates markets where digital infrastructure is absent and to be established. The ITC e-Choupal programme in India demonstrates that technology adoption can achieve scale, even in in challenging conditions, but is not an exact analogue to be used for comparison. New Zealand does not face the infrastructure and technical challenges the programme was designed to solve for. The challenge discussed in this research is behavioural and structural. The findings on education that were supported in interviews suggest a case for a segmented rollout, targeting likely early adopters of digital procurement models first by understanding, scale, structure and education before then diffusing across the industry.

"The most common barrier I see in my family farm and neighbouring farms is a lack of education and commercial acumen around how technology can support business optimisation. Most seem to recognise the farm as a home, but not a business. If more farmers changed their views and looked to technology more, they could be much more successful and so could this model"

The Rural Connectivity Group (RCG), (2026) state that connectivity in rural New Zealand is one genuine infrastructure gap but is closing rapidly. Their infrastructure investment programme, combined with the growth of satellite internet, is improving connectivity for rural digital access, particularly handheld devices. Academic literature on rural digital barriers is often focused on poor accessibility conditions Because of RCG's work some of the structural barriers cited are diminishing at a rapid rate. New Zealand's investment in rural connectivity strengthens the rural cooperatives position as a viable context for implementing the federated login model at scale.

Sales Representative Relationship

The literature identified the sales representative relationship as a possible barrier due to the relationship being a trusted procurement channel that mitigates any felt need to explore alternative options. Interviews confirmed this. Despite this the sales representative relationship emerged from the research as a critical lever to utilise for any adoption strategy concerning serviced farmers. Farmers with strong rep relationships reported they did not need or want to source products elsewhere. They know their sales representative delivers valued convenience, trust, and service. Their stated concern was damaging this relationship by exploring other options.

The existing literature frames the rep relationship in the context of farm input procurement. This research extends beyond that scope into other categories so there is additional nuance to this point. The interviews revealed the rep relationship could be deliberately leveraged to support implementation and adoption of the federated login model.

Most farmers interviewed confirmed they would try a new procurement approach if their rep endorsed it to them. This demonstrates the rep relationship has the potential to be a very efficient adoption mechanism because it acts as a secondary layer of endorsement after the cooperative. The secondary endorsement aligns with the persuasion stage of Rogers' (2003) adoption model. The persuasion stage is a trusted person giving the recommendation directly to the decision maker where there is already an existing relationship.

This strategy is an important consideration because it works alongside or in the absence of a marketing campaign or digital advertising.

No other strategy can replicate the conversion rate of a rep personally telling a client they should try this channel and supporting it with evidence of personally benefiting or anecdotes of other clients saving money. This makes rep enablement one of the most accessible and cost-effective adoption levers available, requiring no new infrastructure, only alignment and deliberate activation.

The practical implication is that reps need to believe in the model, be confident explaining its benefits, and support adoption without viewing it as a threat to their role. Evidence from the research suggests some reps may not proactively share digital channel options with clients, whether due to limited awareness, a protective instinct, or uncertainty about how the channels work. Addressing this is a prerequisite for meaningful adoption at scale. The rep's existing role centres on farm input procurement, and the extent to which that influence can stretch across the wider partner product categories available through the model is an area for further investigation.

The Unserviced Farmer

Some farming operations are simply too small to receive regular rep visits, as the return on time investment for their company does not justify account management at that scale. This structurally excludes small-scale farms from not only from the rep relationship and benefits, but from the potential awareness and persuasion channel that partnership benefits could be communicated. Without this pathway, these farmers are unlikely to know the model exists or engage with it.

This is significant because these are likely the same small-scale farms who stand to gain the most. The procurement person and the decision maker are typically the same person in these operations. This means adoption barriers are lower once awareness is established. Without the efficiencies of scale that larger operations have, and without supplier relationships that generate preferential terms, small-scale farms face the highest search and coordination costs and therefore the greatest potential benefit from the model.

Interviews demonstrated that small-scale farms are also more likely to manage personal and farm expenditure together. This means pricing access across a wider range of categories could produce proportionally greater benefits. The federated login model is well suited to this segment because it is access to the benefits but can operate without a rep touchpoint entirely. The gap to solve is awareness and adoption, not access. These farmers represent a significant untapped opportunity, and because the procurement person and decision maker are typically the same, the model can gain traction quickly once that initial awareness is established.

The unserviced farmer needs an alternative awareness and adoption pathway that does not depend on a rep visit. While the literature suggests these alternatives can be less effective than direct personal persuasion, options including digital communications, peer networks, industry channels and community adoption events can collectively fill the gap. What the literature and interviews agree on is that no segment can be expected to discover and adopt a new model independently. A dedicated pathway for unserviced farmers is a gap the cooperative should prioritise.

8.5 Case Study

The case study modelled a $20,230 annual profitability opportunity for a cooperative member engaging the full endless aisle federated login model across six procurement categories (Table 1). This figure validates the finding that cooperative partnership benefits across categories can be material to on-farm profitability. It reinforces Bakos' (1997) assertion that digital access creates value through reduction in search and coordination costs across electronics, hardware and electricity categories and adds a non-financial benefit that the dollar saving does not capture.

Beyond the savings it was clear that benefits are not uniform across categories. Fuel delivers pricing advantage alone. Electronics and hardware deliver pricing, endless aisle access, and federated login. Vehicle delivers pricing advantage at scale. Electricity adds coordination cost savings through consolidated billing. Interviews confirmed the most valued categories are not necessarily those with the most complete digital access. Vehicle, which carries the largest single variance at $12,607, is an in-store experience with no federated login but one that was identified as key for some participants but conversely mentioned as a high consideration category where switching behaviour is impacted by more than just price (Klemperer, 1995).

The case study confirms that the model does not need to be fully digitised across all categories to deliver meaningful value. A staged implementation that prioritises high-value categories and builds digital capability progressively is both commercially viable and consistent with the adoption behaviour identified in the qualitative findings and Rogers' (2003) five-stage model, which requires confirmation of value before broader adoption can be established.

8.6 Novel Contributions

The Login Identity Gap

The login identity gap identified in section 7.5 has implications that extend beyond access alone. The theoretical frameworks used to establish the basis for this research, Bakos (1997), Brynjolfsson et al. (2013), and Klemperer (1995), treat the credential holder and the purchaser as the same person, but the interviews demonstrated that in a farming context this is frequently not the case. For the model to achieve wide adoption, any federated login implementation must address credential management specifically. Several possible options include authorised sub-users, delegated access, or another mechanism to be uncovered. Failing to address this will structurally exclude many farming operations from accessing possible profitability opportunities and will limit incremental sales volume and penetration for partner organisations.

Awareness gaps are compounded by this credentials gap, and the separation undermines the value proposition of the federated login model and a structural barrier to adoption. This finding has a direct communication implication. If the procurement person does not know their employer holds a cooperative membership with pricing benefits, those benefits will not be realised regardless of how compelling the offer is.

This layering of barriers means the model can fail at two points simultaneously, awareness and access, without either being visible to the cooperative or the partner organisation.

The Development Cost Barrier

Another novel finding that emerged from the interviews with partner organisations addressed the cost of technology integration on the partner side. Building a genuine federated login experience utilising existing cooperative credentials to authenticate seamlessly into the partner platform is a major project. Displaying specific pricing entitlements, transactional capability and a transfer of purchasing data adds further complexity and development costs. Partner organisations who had implemented this capability confirmed that the investment can exceed one million dollars due to the complexity of developing access, verification, special pricing, testing and ongoing enhancements. For major national retailers with large turnover, this investment can sometimes be absorbed, or they can quickly have their investment returned. For smaller partners, there is no doubt the development cost can be prohibitive.

Interviews confirmed the development investment is made by the partner, while the benefits of an improved experience flow to the mutual member and customer. The costs can be recovered over time as the value of the improved experience is returned to the partner through incremental sales volume, but only if farmer engagement

materialises. This creates a shared commercial motivation. The partner needs engagement and incremental sales, the cooperative needs to deliver member value while protecting its reputation, and the farmer needs accessible preferential pricing. The interdependence ensures all parties have a stake in making adoption succeed.

The decision to invest in the federated login or remain as an instore experience can create a structural divide in the cooperative's partner network. Partners who can afford to offer the fullest version of the federated login experience are setting the gold standard. Partners who cannot, will offer a limited version or an instore only experience. From the farmer's perspective, this could create inconsistency that undermines the model's value proposition.

This finding has direct implications for how the cooperative plans for partner integration, and what forms of access are prioritised as part of any implementation strategy. It also has implications for how the cooperative communicates the varying levels of partner access to members, so that expectations are clear and the value of all partner offerings is understood.

Interdependence of Price, Trust, Convenience and Adoption

The findings across the four specified objectives and two novel contributions point to the conclusion that the profitability potential of the endless aisle federated login partnership model is determined by the interaction of all four simultaneously.

Price is the point at which farmers start to engage with the model for a financial incentive, and partners invest for incremental sales volume. However, price alone does not sustain engagement. Without trust and confidence that the benefit will be continually realised, the engagement can erode. Trust and a positive first-time engagement can convert initial engagement into a repeated behaviour, but it is dependent on every part of the network, from the cooperative right to every partner.

Convenience makes the model scalable. If the effort to access outweighs the pricing benefit, the model will only be used by the most motivated farmers and likely ones who are already accessing competitive pricing through other means. In this situation expectations are compounded because they have heightened awareness of what preferential pricing standards are. The federated login mechanism is valuable because it makes cooperative pricing benefits accessible via the path of least resistance and available without switching, registering, or visiting multiple locations. Convenience only delivers true and realisable value if farmers are aware of it, which is where the adoption challenge remains.

All factors converge at adoption. Rogers' (2003) model is useful as an adoption plan but also as a diagnostic framework. Almost all barriers identified in this research can be mapped onto specific stages of Rogers' model to understand the transition levers between the stages. Knowledge gaps require awareness investment. Persuasion requires trusted sales representative influence. The decision stage is where pricing transparency and visible savings benefit matter. Implementation requires the development in order to function seamlessly. Finally, confirmation stage requires consistent, visible and ongoing reinforcement that the model is delivering the value it promises.

New Zealand's agricultural sector has the membership and structural conditions required. Cooperatives have the trust, the digital framework, and the member base to enable this model to work at scale. It requires the strategic commitment to treat the federated login across partnerships as a core cooperative service that is as fundamental to the cooperative's purpose as its buying group power of input pricing.

9. Conclusion

This research purpose recognised that the infrastructure New Zealand's agricultural cooperatives have established to negotiate pricing, endorse partners, and serve members represents a profitability lever that creates opportunity. Opportunity to extend the existing infrastructure into a digitally accessible, shared credential model could improve the financial outcomes of farming operations. The evidence gathered through literature, interviews, and quantitative analysis supports this proposition and at the same time reveals that the path from proposition to realised profitability is not automatic or straightforward.

The core finding is that the federated login model works when all components are functioning together: favourable pricing negotiated with credibility, delivered through an accessible channel, by a trusted party to be utilised by aware farmers and reinforced by continuous evidence of its benefits. When any one of these components lapses, the model's profit benefits cannot be realised to its potential. The cooperative and its partners hold control and responsibility over most of these components. The challenge is achieving the strategic alignment and implementation skills to optimise all components simultaneously and continuously.

The opportunity is real and accessible today to farmers who actively engage with cooperative partnership benefits. The scale of the opportunity is yet to be understood fully. That includes the scale of pricing entitlements available, the various digital channels that exist, regular tracking of accumulated savings, and the extension of benefits to other categories. Some farmers are capturing profitability improvements that their counterparts are not. The federated login model at scale has the potential to be a primary procurement lever. Once awareness is achieved and the infrastructure is built, it can be the main channel for those engaged and motivated.

For cooperative leaders, the findings point toward three strategic necessities. The first is to treat the federated login as an extension of its core purpose and an extended aisle - not as a digital product launch. Cooperatives exist to negotiate advantages for members, and a federated login is a mechanism of digital accessibility. The second is to invest in sales representative relationships as the primary adoption lever. Sales representatives are the most effective adoption mechanism available, but they must be strongly aligned to the vision because they can be effective as an accelerator or they can be a friction point. The difference is determined by their alignment to the purpose and vision. The third imperative is that as an extension of the cooperative, partner relationships and commitments must be governed with the same rigour applied to the cooperative's own service commitments, a single partner failure can damage the credibility on which all partnerships depend.

For partner organisations, there is a commercially compelling case for investing in integration. Partners who have built genuine federated login capability anecdotally report measurable improvements across key sales metrics. They confirm that the cooperative member base represents a valuable customer channel that they could not replicate themselves in market. The investment required can be material, but the return can be significant incremental sales volume and reduced acquisition cost. Key partners who choose not to invest in integration may not be achieving their full potential at scale, are at risk of being viewed as participating in the cooperative's network at a reduced level of value in comparison to their competitors.

For rural leaders, the findings present an opportunity that extends beyond a cooperative. New Zealand's combination of cooperative density, rural connectivity initiatives, and member trust places it in an advantaged position to implement relative to other sectors. The conditions for success exist and while rural New Zealand has taken steps, it has factors that enable it to lead rather than follow. It is a matter of strategic alignment and execution.

The farmer who takes out their phone in the cab of their tractor, price checks a replacement part at a partner retailer, pays, completes an order, and contacts a contractor without leaving the paddock is realistic view of rural digitalisation. New Zealand is a few small steps away from that being the routine experience of cooperative membership. The evidence suggests it is worth taking those steps. The opportunity to improve farm profitability through pricing, trust, convenience, and accessibility is waiting.

10. Recommendations

10.1 Cooperative Leaders

Treat the federated login as infrastructure, not a product launch.

The model's value is in what the technology unlocks. Communicating it as a digital tool could undermine adoption while communicating it as an extension of the cooperative's benefits may land more successfully with farmers. Internally it should be treated with the same rigour applied to core cooperative services to scale and implement.

Invest in Field Sales Representative enablement as the primary adoption mechanism.

No marketing channel will replicate trusted sales representative endorsement. Sales representatives need to be aligned, enabled and motivated to recommend the model and view it as a tool and not a threat to their relationships or roles. Explicit enablement training and incentives could be beneficial for achieving adoption at scale.

Create a tiered integration framework.

Integration costs can exceed millions which is untenable for some partners but inconsistency risks undermining the model or other partners application of it. Tiers should be defined and communicated clearly so that farmers understand what to expect from each partner from instore access, up to full integration with shared credentials. The value of all tiers being communicated is important so that the gold standard does not diminish the rest.

Robust partner management.

As the cooperative's credibility is the foundational currency of the model, partner compliance to their commitments is critical to the model's viability and farmers continual engagement. Clearly defined processes for organisations to comply to and prompt escalation pathway for discrepancies are essential components of the implementation.

Develop an alternative awareness and adoption pathway for Unserviced farmers.

Smaller farming operations without sales representative relationships are shielded from the most effective adoption pathway but are among those most likely to benefit from search and coordination cost reduction. A dedicated digital communication programme and leveraging peer networks such as community adoption events should be considered for this segment as the research suggests these farmers are unlikely to discover and adopt the model independently.

Address the login identity and credential management gap.

The research identified that in many farming operations the cooperative credential holder and the procurement decision maker are not the same person. This is particularly common in larger corporate farming operations but can occur anywhere. Delegates or multi-user credential access should be designed and accounted for so all organisations can be structurally included in access.

10.2 Partner Organisations

Invest in integration as a strategic commercial decision.

Partner organisations with federated login capability reported measurable improvements in key sales metrics, that returned in their investment immediately. Partners should explore how quickly the return on investment can be achieved versus what success is realistic if they are participating at reduced value level compared to gold standard.

Display savings in dollars.

Research findings confirmed farmers with visibility over savings were more likely to actively track accumulated savings and were more engaged. Investing in dollar saving visibility within the model should be a deliberate adoption and reinforcement strategy.

Ensure partners apply pricing consistently across their channels and locations.

Partners that have decentralised pricing structures or independently managed sites should ensure that favourable pricing is understood, honoured and applied consistently at every interaction as any friction undermines the model beyond a single transaction.

10.3 Farmers and Farming Operations

Know what you are entitled to before you spend.

Before making any purchase, use tools available to identify if a cooperative partner exists, whether negotiated pricing applies, and then prioritise utilisation.

Identify the procurement categories where price is a key decision driver.

In categories where trust and quality are critical such as veterinary services or animal health products, maintain your usual practices. For consumable categories where trust is less critical, compare price and savings. These are the lowest risk entry points for profit potential and the accumulated savings across these categories can be material.

Ensure all staff are aware and can access cooperative benefits.

If a farm worker, manager, or staff member are sourcing inputs with no knowledge or visibility of entitlements, the savings are unrealised. Ensure those who procure on behalf of the farm know what the cooperative membership provides and how they can access it.

Plan a regular procurement review.

Corporate farming structures can be less likely to capture the cooperative partnership benefits because the people who can act are removed from the task. If the profitability case is strong enough, it warrants the attention of senior leadership or ownership as a formal opportunity. Prioritise reviewing and escalating opportunities.

11. Limitations

There are several limitations to consider within the findings of this study. The participant group was diverse across three groups but a smaller sample size than planned due to concluding the interviews at saturation point. It is possible some perspectives are less represented than intended. Future research with a larger and broader cohort would strengthen the transferability of the findings.

The quantitative case study, designed to model profitability differences across procurement scenarios, is an illustrative sample of procurement, rather than empirically validated for one specific farm. While the specific product costs and savings are accurate, to respect privacy, total costs were drawn from estimates. A quantitative comparison using verified statement data alongside the specific cost and savings information across a sample of farms would significantly strengthen the profitability argument.

The case study validates cooperative member profitability opportunity but does not assess the incremental sales benefit to the partner organisation. In future studies this could also be established to further reinforce the value of the partnership model.

There was no relevant academic literature on cooperative digital platforms in agricultural contexts so most theoretical basis for this research is drawn from adjacent areas such as retail channel strategies, B2B platform economics, and endorsement theories from consumer marketing. These analogies are useful when carefully applied, but do not fully capture the unique cooperative and member relationship dynamics characterised by member ownership and governance, mutual obligations and financial dependency.

This research does not investigate complexities mentioned by a partner organisation regarding an integration gap. This is the challenge integrating with national partner that has a decentralised ownership and management model. This is a dimension of complexity that could significantly impact the consistency and experience for a cooperative member. Future research should specifically investigate the impacts when an offer is varied across the country and consider how to simplify the model for partners who have this structure.

The federated login is examined conceptually, with some specific but anonymous interviews from partners who interact with cooperatives and members. The model behaves differently across cooperatives, and the findings should not be generalised to all cooperatives or partnership models.

Finally, this research has been conducted at a time when rural digital connectivity in New Zealand is improving but is inconsistent. The connectivity in remote rural areas will improve as satellite gains more rural coverage. Addressing adoption behaviour against improving digital connectivity would provide a more holistic view of the relationship between infrastructure capability and model adoption.

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