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**BUSINESS INTERNATIONALIZATION: INSIGHTS FROM THE
ESTONIAN VIDEO GAME INDUSTRY**

Master's Thesis

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I have written this master's thesis independently. All viewpoints of other authors, literary sources and data from elsewhere used for writing this paper have been referenced.

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Abstract

This thesis aims to find out how video game development firms from a small domestic market internationalize, using the Estonian video game industry as the empirical context. The qualitative study addresses three research questions: how small-market game firms initiate and scale international activities, how digital platform ecosystems support internationalization processes, and which firm resources and capabilities are most critical for overcoming the constraints of small-market origin. The thesis is grounded on leading internationalization perspectives: the Uppsala internationalization model, born global and international new venture theory, the resource-based view and the born digital research. The findings show that internationalization in the Estonian video game industry is typically early and necessity-driven. Digital platforms enable rapid cross-border reach, but do not guarantee commercial success. Instead, firms become highly dependent on discoverability, changing governance systems of platforms, and different ecosystem actors, e.g. publishers, creators and player communities. Sustained international success depends less on simple platform access and more on specific activities, including clear product framing, community building, post-launch adaptation, and internal strategic alignment. Overall, no single internationalization theory fully explains the behaviour of small-market game firms. Instead, the explanation is a combination of: firms internationalize early because they must, they do so digitally because they can, but they succeed only when they develop the capabilities and network positions needed to operate within platform ecosystems.

Keywords: video game industry, internationalization, born global, born digital, digital platforms, small-market firms

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1. Introduction

Nowadays, a growing number of consumers are playing video games during their free time - on phones, on computers and gaming consoles. Throughout recent years, video game industry, an increasingly important part of the creative industry sector, has shown high growth numbers with 3.6 billion total players and 188,8 billion USD estimated yearly revenue for 2025 (Newzoo, 2025).

The contemporary video game industry is a hybrid of creative production and advanced digital technology. The sector's value creation and commercialization is shaped by distribution on platforms, global online communities and rapid development of new business models. Research on video game industry highlights how digital channels and online distribution can restructure relationships among developers, traditional intermediaries, and user communities, while new financing and engagement mechanisms (e.g. reward-based crowdfunding) can integrate market knowledge and capital from geographically dispersed audiences into the development process (Nucciarelli et al., 2017). Empirical work on game development firms from smaller European markets indicates that even resource-constrained studios can pursue rapid internationalization, relying on entrepreneurial teams and flexible resource acquisition, suggesting that international growth can begin early even when firms lack extensive prior international experience (Cunningham et al., 2012). This aligns with broader findings that digital-era creative firms face a strategic tension: digital distribution increases access to global customers, yet international commercialization may still depend on specialized complementary assets, such as publishing, marketing, and channel capabilities, that are unevenly distributed across ecosystems and geographies (Broekhuizen et al., 2013).

Historically, international business (IB) theory has held that internationalization is costly, uncertain, and typically incremental. The classic Uppsala model by Johanson & Vahlne (1977) states, that firms internationalize through gradual learning and increasing commitment, where increasing market knowledge reduces uncertainty over time. The model's revision focuses on networks and the "liability of outsidership", emphasizing that being outside relevant business networks can be a primary source of uncertainty and constraint (Johanson & Vahlne, 2009). Another revision is focusing on network relationships and internationalization as a dynamic, non-linear process (Vahlne & Johanson, 2017) with focus shifting from foreign market entry to broader firm change and firm evolution concept (Vahlne, 2020). The latest extensions are further moving the theory toward an evolutionary and growth-based logic with the addition of nano-foundations and managerial judgment, and

greater attention to trust, non-linearity, institutional turbulence, and effectual decision-making (Liesch & Welch, 2024; Vahlne, 2020; Vahlne & Schweizer, 2022).

The rise of international new ventures (INV) and “born global” firms (BG), supported by internet, availability of online platforms and digitalization, challenged the stage-based views by documenting firms that internationalize at or near inception, leveraging entrepreneurial orientation, innovation, capabilities and proactive international strategy to compete internationally early on (Oviatt & McDougall, 1994). More recently, research on “born digitals” and digital platform ecosystems argues that technology affordances, e.g., automation, network effects, scalability and platform-supported value creation reshape how firms learn, coordinate, and expand internationally (Monaghan et al., 2020). Additionally, the resource-based view explains sustained advantage through valuable, rare, difficult-to-imitate, and non-substitutable resources (Wernerfelt, 1984), while dynamic capabilities theory emphasizes how firms reconfigure resources to address rapidly changing environments (Teece et al., 1997). Nowadays, RBV is less treated as a static inventory of valuable resources and more as an explanation of how firms evaluate, combine, and deploy resources under different conditions (Aïssaoui et al., 2025). Dynamic capabilities research has become more explicit about levels of analysis, microfoundations, and capability taxonomies, while also integrating more closely with international entrepreneurship and learning-based theories (Brock & Hitt, 2024; Pitelis et al., 2025).

Despite these theoretical developments, important gaps remain. First, recent reviews show that research on digital firm internationalization is still fragmented, theoretically diverse, and in need of more context-specific empirical work, particularly on how digital firms extend or challenge established international business theories (Yang et al., 2025). Second, while digital platforms are increasingly recognized as enablers of business internationalization, the literature still contains a limited number of empirical studies on how smaller firms choose, combine, and use platforms for international market entry, and how platform use interacts with firm resources and capabilities (Da Rocha et al., 2024; Gong et al., 2024). Third, the video game industry has received comparatively limited attention in international business research, although it is a highly relevant setting for studying born-digital internationalization – e.g. game developers often sell digital products globally from inception while still facing constraints related to financing, publishing, platform visibility, marketing expertise, and network access. Existing game-industry studies have examined rapid internationalization in small European markets (Cunningham et al., 2012) and, more recently, born-digital game firms in emerging-market contexts (Astuti, 2024), but there is still

limited evidence on how game studios from very small domestic markets, such as Estonia, initiate and scale international activity through the combined use of digital platforms, entrepreneurial networks, and firm-specific capabilities.

This thesis aims to find out how video game development firms from a small domestic market internationalize, using the Estonian video game industry as the empirical context. Based on the theories, research gaps and the video game industry specifics, key research questions were formed, that enable to reach the aim:

1. How do video game development firms originating from small domestic markets initiate and scale international activity (timing, market selection, and commercialization modes)?
2. How do digital platform ecosystems and “born digital” technology opportunities reshape learning, network formation, and commitment patterns relative to traditional stage models?
3. Which firm resources and capabilities are most critical for small-market game firms to internationalize and to overcome “liabilities of outsidership”?

The study contributes to the literature by providing empirical evidence from the Estonian video game industry, a small-market context that remains underrepresented in international business and creative industry research. Secondly, it contributes theoretically by connecting Uppsala-model arguments on learning, commitment, and network outsidership with born-digital and platform-based internationalization perspectives. Thirdly, it adds to resource-based and dynamic capability discussions by identifying which resources and capabilities small game development firms perceive as most important for international commercialization.

To answer the research questions, the study uses a qualitative multiple-case design based on semi-structured interviews with founders of three Estonian video game development firms. The empirical material is analyzed through theory-informed thematic analysis in order to identify recurring mechanisms, similarities, and differences across cases.

The thesis is structured as follows. The next chapter reviews the relevant literature on internationalization theories, the video game industry context, and firm typologies. The methodology chapter explains the research design, case selection, data collection, and analytical procedure. The empirical chapter presents the main findings and discusses them in relation to the theoretical framework. The final chapter concludes by summarizing the contribution of the study, outlining limitations and directions for future research.

2. Review of literature

2.1 Internationalization theories: how and why firms move across borders

Internationalization theories have been in the spotlight since the 1970s, evolving from gradual, risk-minimizing models toward explanations that accommodate early, fast, and digitally enabled global expansion. Throughout this history, three recurring questions shape the field: what triggers foreign expansion, how firms manage uncertainty and risk, and what resources or mechanisms enable sustained advantage abroad.

The most influential early process model of internationalization emerged from Uppsala. Johanson and Vahlne (1977) conceptualized internationalization as a gradual learning process in which firms increase foreign market commitment step-by-step as they gain experiential knowledge and reduce perceived uncertainty. Their model explained common patterns such as starting with close markets with similar language, culture, business norms and moving to more distant markets as capabilities and confidence develop (Johanson & Vahlne, 1977). From their perspective, international expansion is a path-dependent process shaped by risk aversion, uncertainty, and learning-by-doing.

Over time, empirical developments and market changes, characterized by globalization, faster information flows, and networked business environments, challenged the idea that experiential learning must always be slow and sequential. In response, Johanson and Vahlne (Johanson & Vahlne, 2009) revised the Uppsala model, shifting emphasis from “psychic distance” and incremental steps toward networks and positions within relationships. Their updated logic highlights that firms struggle not only with being foreign (“liability of foreignness”) but also with lacking membership in relevant networks (“liability of outsidership”), making access to partners and opportunities central to international growth (Johanson & Vahlne, 2009). Newer revision included aspects related to digital technologies and faster-acting firms, focusing on network relationships and internationalization as a dynamic, non-linear process (Vahlne & Johanson, 2017), with focus shifting from foreign market entry to broader firm change and firm evolution concept (Vahlne, 2020). In contemporary research, the revised Uppsala perspective is often treated as a general theory of internationalization under uncertainty, especially for firms constrained by limited knowledge, legitimacy or market access. The latest updates are further moving the theory toward an evolutionary and growth-based logic with the addition of nano-foundations and managerial

judgment, and greater attention to trust, non-linearity, institutional turbulence, and effectual decision-making (Liesch & Welch, 2024; Vahlne, 2020; Vahlne & Schweizer, 2022).

In parallel with the process models, strategy research provided the resource-based view (RBV) as a theory of sustained competitive advantage. Wernerfelt (1984) proposed that firms can be understood as bundles of resources; Barney (1991) argued that resources provide sustained advantage when they are valuable, rare, difficult to imitate and organized to capture value (VRIO). RBV became influential for internationalization because it offers a direct explanation for why some firms can expand quickly: not because they have patiently accumulated foreign experience, but because they possess transferable, defensible resources (e.g., unique IP, brand, know-how, organizational routines) that travel across borders (Barney, 1991; Wernerfelt, 1984). Nowadays, RBV is less treated as a static inventory of valuable resources and more as an explanation of how firms evaluate, combine, and deploy resources under different conditions (Aïssaoui et al., 2025). Dynamic capabilities research has become more explicit about levels of analysis, microfoundations, and capability taxonomies, while also integrating more closely with international entrepreneurship and learning-based theories (Brock & Hitt, 2024; Pitelis et al., 2025).

By the early 1990s, the growing number of firms that internationalized very early, often small and resource-constrained, produced a major theoretical turning point. Oviatt and McDougall (1994) introduced international new ventures (INVs), arguing that some firms seek competitive advantage using resources and sale of outputs in multiple countries from (or near) founding. This directly challenged the idea that firms must internationalize through slow stages, showing that early global orientation can be viable when firms leverage entrepreneurial intent, networks, and unique resources (Oviatt & McDougall, 1994). Following research strengthened and refined the Born Global (BG) perspective, linking early and rapid internationalization to innovation and organizational capabilities. Knight and Cavusgil (2004) emphasized that BG performance is often tied to innovation orientation and capability development, suggesting that speed is not merely a timing variable, but a strategic outcome rooted in how firms build and deploy capabilities. Recent work in the field shows that early internationalizers are not a homogeneous new group, but rather different by stage of maturity, and should be assessed not only by early speed but also by entry timing, post-entry dynamics, resilience, and capability reconfiguration. (Efrat & Asseraf, 2024; Fariborzi et al., 2025; Rumyantseva & Welch, 2023) Across the literature, BG and INV theories have become a mainstream lense for sectors where international demand is immediate or where niche strategies require early global reach.

As digitalization expanded, researchers increasingly studied firms whose products and distribution are inherently scalable across borders (e.g., software, online services, platform-mediated offerings). A common contemporary claim is that some ventures are effectively born digital and able to access international users very early because digital channels reduce the marginal cost of reaching foreign markets and compress time-to-market. This has led many scholars to treat Born Digital (BD) internationalization as a digitally accelerated pathway that resembles BG logic but operates through digital infrastructure and platform ecosystems (Stallkamp & Schotter, 2021). However, the modern view is not simply claiming, that digital makes internationalization easy. Platform-based global reach introduces new dependencies: gatekeeping, algorithmic discovery, compliance requirements, data access constraints, and shifting platform rules. Research on digital platforms argues that international strategy is shaped by platform governance and border-spanning but still uneven market access, meaning “global” can be technically available while commercially constrained (Stallkamp & Schotter, 2021). This hints, that internet/platform opportunities might depend on the firm’s capabilities (e.g., digital marketing, analytics, channel management) and that digital internationalization speed is still driven by these. Recent evidence makes clear that BD firms are heterogenous, while platform type, ecosystem position, community formation, data and regulatory constraints, and digital innovation all shape internationalization pathways (Li et al., 2025; Monaghan et al., 2020; Yang et al., 2025).

Overall, contemporary internationalization research increasingly treats these theories as complementary rather than mutually exclusive. The Uppsala model remains valuable for explaining learning, uncertainty reduction, and commitment dynamics, especially when firms face high regulatory complexity or limited knowledge. Born Global/INV theory captures how some firms internationalize early due to entrepreneurial orientation, niche logic, and network leverage. RBV explains the underlying sources of competitive advantage that enable either gradual or rapid expansion. Digital internationalization perspectives highlight how platforms and digital channels can accelerate reach while simultaneously creating new forms of dependency and strategic constraint. The scholarly position of current study is less about choosing one model and more about specifying conditions with focus on video game industry insights from a small market. Key questions include what kind of firm, what kind of product, under which ecosystem constraints, and what resources/capabilities shape their internationalization pathways. Key concepts above provided theory anchors for developing the interview outline as described below in Table 1.

Table 1 Theory anchors, key concepts and relevance informing the analysis of small-market game firms' internationalization

Theory/perspective and key authors used for this thesis	Key concepts	Relevance for small market game firms	Operationalization in interviews (question numbers, see Annex I)
Uppsala model Johanson & Vahlne, 1977, 2009; Vahlne & Johanson, 2017; Vahlne, 2020; Vahlne & Schweizer, 2022; Liesch & Welch, 2024	Incremental internationalization, psychic distance, uncertainty reduction, gradual commitment, experiential knowledge and liability of outsidership.	Explains how firms build foreign-market knowledge, legitimacy, and partner access over time, especially when resources and international experience are limited. Often viewed as incompatible with the rapid pace of the game industry.	Q4-6 (international steps + choices), Q10-11 (outsidership/insider access), Q14-15 (learning cycles / post-launch adaptation as learning and commitment)
RBV / dynamic capabilities Barney, 1991; Wernerfelt, 1984; Brock & Hitt, 2024; Pitelis et al., 2025; Aïssaoui et al., 2025	Transferable firm-specific resources (VRIO - valuable, rare, inimitable, non-substitutable), sustained competitive advantage, resource recombination, and capability development	Explains why some studios can compete internationally from small domestic markets, particularly when they possess distinctive creative, technological, IP-based, or organizational capabilities.	Q8-9 (commercialization capabilities for visibility), Q12-13 (strengths/weaknesses), Q14-15 (adaptation + success/failure reasons)
Born Global / International New Venture theory Oviatt & McDougall, 1994; Knight & Cavusgil, 2004; Efrat & Asseraf, 2024; Fariborzi et al., 2025; Rummyantseva & Welch, 2023	Early international orientation, global vision, rapid foreign-market entry (often within 3 years), entrepreneurial intent, niche strategies, and network leverage	Explains why game firms may target international markets from inception rather than first developing a strong domestic market position.	Q1-3 (founding + small-market necessity), Q4-6 (timing/sequence of internationalization), Q12 (what enables early internationalization)
Born Digital Monaghan et al., 2020; Stallkamp & Schotter, 2021; Li et al., 2025; Yang et al., 2025	Digital platforms and ecosystems, platform-enabled reach, compressed time-to-market, and digitally mediated foreign-market access. Modular architectures.	Explains how game studios can reach international users early through digital storefronts, online communities, and platform-based distribution, while still facing platform dependencies and capability constraints.	Q4-6 (how they went international), Q7-9 (platforms and discoverability), Q14 (post-launch iteration as ongoing internationalization)
Video game industry related insights Rochet & Tirole, 2003; Nambisan et al., 2019; Broekhuizen et al., 2013; Nucciarelli et al., 2017; Nieborg & Poell, 2018; Astuti, 2024	Discoverability, gatekeeping, platform governance, complementary assets, network effects, and value capture	Explains why global technical access does not automatically translate into commercial success, since visibility, publisher relations, community-building, localization, and platform rules shape international performance.	Q7-9 (platform rules & visibility tactics), Q10 (complementors/publishers/partners), Q13 (resource gaps that increase failure risk), Q15 (success/failure reasons)

Source: Compiled by author based on mapped literature of internationalization theories and insights from video game industry research

2.2 Video game industry and small-market conditions

The video game industry offers a particularly interesting context for studying internationalization under small-market conditions. Games are information goods: once developed, the marginal cost of serving an additional customer in a foreign market is close to zero, cultural content is often designed for global audiences, and competitive advantage rests on creative and technological capabilities rather than physical assets or location-specific resources (Nambisan et al., 2019). These properties make the sector an excellent study field for examining how firms from small domestic markets, with small local demand, pursue international expansion. The scale of the industry reinforces this point. The global video game market was estimated at approximately \$187 billion in consumer spending in 2024, with over 18,000 new titles released on the Steam platform alone that year (Newzoo, 2025). The industry combines mass-market scale with a long tail of small producers, many of them operating from countries whose domestic player bases represent a small fraction of global demand.

According to a sectoral analysis ordered by Ministry of Culture in Estonia and carried out by Kantar Emor (KantarEmor, 2023), the Estonian video game industry has more than 76 companies, with 540 staff engaged and yearly turnover of 50 MEUR+. However, the list might not be comprehensive, as the firms can be found under several different activities according to the Classification of Economic Activities in Estonia, e.g.: 58211 publishing of video games, 62101 computer programming activities, 62901 other IT and computer service activities. (KantarEmor, 2023)

Parallely with growth of the industry, the research into creative industry in general, but also into video games is also growing rapidly. To increase the chance of success within the sector, the startup teams and established companies active in the field need to involve people with skills in software development, game development, arts (e.g. visual arts, music), business management and marketing. In smaller teams, several of the skills are covered by one team member only. At the same time, the finalized games are usually published on the international publishing platforms, in front of an international audience in a growing and highly competitive environment. According to Marchand & Hennig-Thurau (2013), the value creation in the video games industry involves other entertainment industries, depending on technological infrastructure and the influence by other consumers.

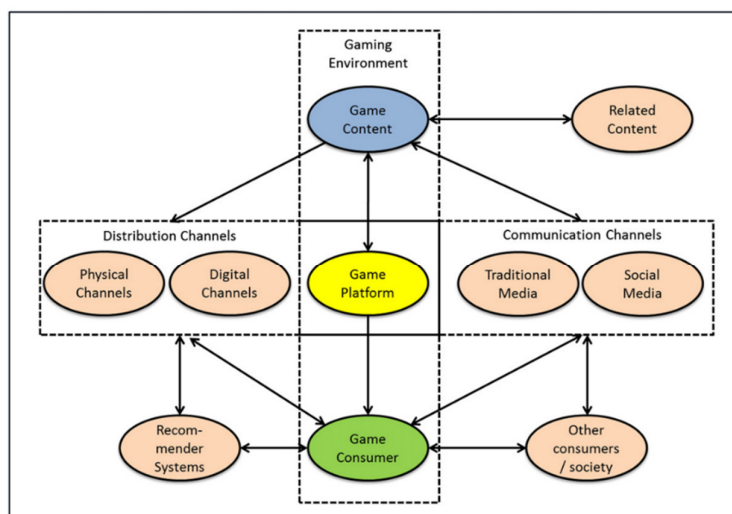


Figure 1 Value creation in Video Game Industry by Marchand&Hennig-Thurau, 2013

Categorization and classification of the games is made according to the game themes and genres available at major storefronts, including general content tags (examples: Action, Adventure, Arcade, Casual, Singleplayer, Sports) and ever-evolving list of specific tags (examples: cute, turn-based, cats, nostalgia).

The video game sector has some specific aspects to consider and a lot of game developers do not think about their game projects as an entrepreneurial activity (including company creation, staffing, revenue and profit generation, sustainability), but rather as a hobby (Whitson et al., 2021). Game developer-specific research is hinting on close links between aspects of the traditional software industry and video game development: team configuration & management, game design document management, game engine development, game asset management, quality of game architecture, game test management and programming practices (Petrillo et al., 2008). Research into failure variables through examining labour processes within the industry has provided evidence on high levels of crunch, meaning periods of work overload, often occurring months before a game is published (Woodcock, 2016).

Video game markets are increasingly governed by platform ecosystems that resemble multi-sided markets: platforms must attract both players and developers, and competitive dynamics are shaped by cross-side network effects and platform governance. Foundational work on two-sided markets formalizes why “getting both sides onboard” and choosing an appropriate price allocation across sides are central to platform competition, a logic directly relevant to digital game distribution and monetization. (Rochet & Tirole, 2003).

For small-market studios distributing via digital storefronts such as Steam, PlayStation Store, and App Store, international reach can be achieved early because distribution is not constrained by physical channel build-out. Yet the same platform setting often increases dependence on discoverability mechanisms, platform rules, and complementors (publishers, marketing partners, localization vendors, community intermediaries). In other words, “reach” may be global quickly, while “traction” and “value capture” remain constrained by ecosystem structure and access to complementary assets. This is consistent with broader international business arguments that digital platforms and ecosystems reshape value creation/capture and, therefore, the theoretical requirements for explaining international expansion. (Nambisan et al., 2019).

Game-industry evidence strongly supports the complementary-asset dependency claim. In entrepreneurial content production, online channels can enable bypassing traditional publishers, but performance may still depend on specialized complementary assets that publishers provide. In a video game setting, a case-based comparison of artist-led distribution versus a strategic alliance with a publisher shows that intermediary alliances can deliver value precisely through these specialized assets (e.g., marketing reach, channel expertise). (Broekhuizen et al., 2013). Digital platforms, especially crowdfunding and online distribution channels, help the video game sector to access global markets, validate demand, reduce costs, and collaborate with customers and partners (Astuti, 2024). Alternative resource channels, e.g. crowdfunding and online community engagement, can reshape how small studios finance, validate, and coordinate development. Crowdfunding in the digital game industry has been theorized as a shift from linear value-chain logic toward platform logic, through which developers can mobilize resources that go beyond funding, e.g., market knowledge, early community building, and feedback that informs product decisions (Nucciarelli et al., 2017).

Small-market conditions become empirically visible when examining how small studios internationalize under constrained domestic opportunity and limited internal resources. Evidence from small game development firms in Poland and Hungary demonstrates rapid internationalization, sometimes without extensive founder international experience, and with resource procurement conducted on a freelance and low-commitment basis, suggesting that internationalization can be initiated with externalized resource portfolios rather than fully internalized capability stacks (Cunningham et al., 2012). Research by Astuti (2024) found, that some Indonesian born-digital game firms internationalised rapidly despite limited financial resources, weak institutional support, and little prior international experience and their expansion was driven by effectuation logic: founders relied

on their passion for games, technical skills, peer and family networks, experimentation, and partnerships rather than formal market planning. Overall, the study showed that born-digital firms from emerging markets can achieve early internationalisation by using available means, embracing unexpected opportunities, and building flexible stakeholder networks (Astuti, 2024).

Gabrielsson et al. (2022) claimed, that accelerated internationalisation is enabled through three decision-making paths: a global mindset-based approach that attracts international stakeholders through digital communities, a means-based effectuation approach that uses existing resources and contacts to build commitments, and a later causation-based approach that emerges as firms accumulate international experiential knowledge.

The industry context indicates that small-market game studios can access international customers early, but cannot assume that access translates into sustained performance. Internationalization is best understood as a platform-ecosystem problem involving complementary assets, visibility, and community-mediated value creation. This places ecosystem and resource-management capabilities at the center of the research focus.

2.3 Taxonomies and classifications of video game development companies

As there was no clear taxonomy of video game development companies in peer-reviewed research, the industry-wide used labels were used - indie, AA, and AAA. However, these have been critiqued for conceptual vagueness (Garda & Grabarczyk, 2016; Lipkin, 2013; Parker, 2014). Nevertheless, a working classification of firm types is essential for the present study. Different types of game companies face slightly different internationalization paths: a self-funded hobbyist distributing free games on itch.io platform confronts a different set of challenges from those of an indie studio self-publishing on Steam, which in turn differs from a service provider executing contracts for an international publisher or an AAA studio deploying global multi-platform releases. A clear taxonomy therefore serves as a necessary analytical bridge between the general internationalization theories reviewed above and the specific empirical context of Estonian game firms examined in this thesis.

The following Table 2 synthesizes the definitions from Zackariasson and Wilson (2012), the independence framework of Garda and Grabarczyk (2016), and empirical data from industry surveys (Bain & Company, 2025; GDC, 2025). It is organized along six dimensions: team size, budget, publisher involvement, creative autonomy, and primary distribution channels.

Table 2 Taxonomy of video game development companies

Category	Team size	Budget (USD)	Publisher role	Creative autonomy	Distribution
Hobbyist	1-5 (solo or small informal teams)	Near zero; self-funded from personal resources	None; no publisher involvement	Complete; driven by personal expression and learning	Free platforms (itch.io, Game Jolt); little or no commercial distribution
Indie studio	1-49 (typically <20)	< \$1M (90%+); some up to \$1 - 10M	None (73%) or indie-friendly label	High; developer is primary intended audience	Digital (Steam, Epic, consoles); self-published or indie publisher
Service/Outsourcing	10-500+ (varies by firm)	Fee-based; no own-IP budget	Works for publishers and studios as contractor	Low; executes client specifications	N/A (does not publish own titles)
AA Studio	50-100 (up to 200)	\$2-\$20M	Typically backed by publisher without full integration	Moderate; focused on 1-2 strengths within commercial constraints	Digital and limited physical; cross-platform
AAA Studio/ Publisher	200-3000+	\$50-300M+ (excl. marketing)	Publisher-driven; often publisher-owned studio	Low to moderate; constrained by commercial risk-management	Global multi-platform; physical + digital; massive marketing

Source: composed by author based on: GDC, 2025; Garda & Grabarczyk, 2016; Zackariasson & Wilson, 2012

The concept of independence in game development is an important aspect and has been covered well by Garda and Grabarczyk (2016), who argue that "independence" has three distinct relational properties:

- Financial independence - the developer is not reliant on external investors (publishers, venture capital, government bodies, or institutional funding) for the means of production. A financially independent developer self-funds development from personal or company resources;

- Creative independence - the developer is the primary intended audience for the game; creative decisions are not shaped by external investors' specifications or deliberate conformity to market demand (e.g., producing derivative clones);
- Publishing independence - the developer self-publishes, acting as both creator and distributor rather than relying on a separate publishing entity to bring the game to market.

Building on the independence framework, the game industry can be understood through its organizational structure, a continuum of firm types differentiated by team size, production budget, publisher involvement, and distribution strategy. Digital distribution has enabled independent developers to reach consumers directly through platform intermediaries but has simultaneously shifted competition from funding acquisition to discoverability. (Nieborg & Poell, 2018)

Several clarifications about this taxonomy are relevant for the present study. First, the boundaries between categories are fluid rather than set in stone. Some examples - successful indie studio may grow into AA territory, a service provider may develop its own IP and become an indie developer, and a hobbyist project may achieve unexpected commercial traction and evolve into a studio.

Second, the service/outsourcing category is important, because these firms do not publish their own titles and therefore do not internationalize through product-market entry in the conventional sense. Instead, their internationalization takes the form of cross-border service provision - exporting development services to foreign publishers and studios. This is a fundamentally different mechanism from the product-based internationalization that the Uppsala, born global, and born digital theories primarily address.

Third, the taxonomy reveals a structural feature of the industry that is critical for small-market firms: the concentration of power in AAA publishers and platform holders means that smaller firms must either self-publish (accepting the burden of marketing, discoverability, and community-building) or enter into asymmetric relationships with publishers. For Estonian game firms, which are overwhelmingly in the hobbyist-to-indie range, this creates a tension between preserving independence and accessing the resources needed for international visibility. The around 75 active companies in the Estonian ecosystem (KantarEmor, 2023) are characterized by small teams (the majority having fewer than 10 full-time employees), limited budgets, high reliance on digital distribution platforms, and varying degrees of financial, creative, and publishing independence.

3. Methodology

3.1 Selection of methodology

This research uses a qualitative, theory-informed multiple-case study design suggested by Yin (2018), and purposive sampling to identify information-rich cases suggested by Patton (2015). While the sample size is small ($n=3$), the qualitative inquiry focuses on in-depth understanding and analytic generalization to theoretical propositions rather than statistical generalization to a larger population (Yin, 2018). As suggested by Patton (2015), the selection of participants followed purposive sampling to identify information-rich cases ($n=3$) from which one can learn a great deal about issues of central importance to the study's purpose. This approach is suitable because the study investigates how and why internationalization occurs in contemporary real-life context. Qualitative methods are well suited for examining complex phenomena in creative digital industries, where organizational practices, entrepreneurial motivations, and internationalization processes are not easily captured through quantitative indicators alone (Yin, 2018).

The process of current study consisted of several steps (see Figure 2). The methodological background was developed from the literature review. Next step was preparing and carrying out semi-structured interviews with pre-selected founders of successful companies from Estonia focusing on video game development. Final step was the analysis and interpretation of results.

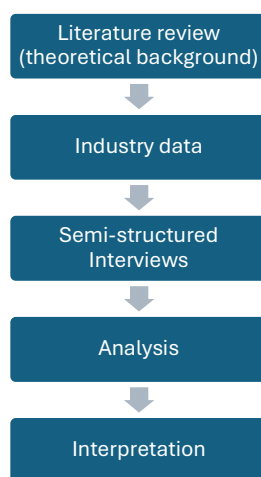


Figure 2 Study process, compiled by author

Preparing a semi-structured interview, often referred to in qualitative research as an in-depth interview or guided conversation, requires balancing a consistent line of inquiry with the flexibility to pursue emergent insights. (Patton, 2015; Yin, 2018) Thus, the semi-

structured interview guide was developed based on the key topics from the literature review - see Table 1 for operationalization of the questionnaire questions according to underlying theories and concepts. The content was organized around the following topics (see also Annex I Semi-structured interview guide with 6 topics and 15 questions):

- Beginnings and small market reality
- Internationalization timeline and choices
- Platforms and discoverability
- Networks, partners and insider access
- Strengths and weaknesses
- Learning, adaptation and post-launch work

3.2 Choosing interviewees

As suggested by Patton (2015), the selection of participants followed purposive sampling to identify information-rich cases ($n=3$) from which one can learn a great deal about issues of central importance to the study's purpose. This research utilizes criterion-based case selection (Patton, 2015), where participants were chosen because they met predetermined criteria: being founders of video game studios in small markets with internationalization orientation and international visibility/success (projects launched with significant export revenue). As the Estonian video game industry is composed almost entirely of firms in the hobbyist and indie categories, with a small number of service/outsourcing providers and only a couple of hits, that have almost reached AA-level, but not long-term, this had a direct effect on the research design. The interview sample was constructed to represent the Estonian industry, rather than across the full AAA-to-hobbyist spectrum. The taxonomy in Table 1 serves both as a theoretical lens for understanding how firm type shapes internationalization constraints and as a practical tool for justifying the purposeful sampling strategy.

Because the study includes three interviews with successful founders of active video game studios, it can be treated as a multiple-case design. In such a design, the cases are examined individually and then compared across cases. Yin (2018) emphasizes that multiple-case studies strengthen findings through replication logic, where recurring patterns across cases support more robust theoretical conclusions. The founders act as key informants for describing the key internationalization decisions, platform strategy, network/outsiderness dynamics, and capability reconfiguration. 3 interviews ($n=3$) were carried out (see table 3).

Table 3 Overview of the interviewees (n=3, Company A, B and C)

Interviewees	First export income	Taxonomy of company	Category	Platform focus	Interview date	Duration
Company A (est. 2009): Early Android case, co-founder of the company	2011 (almost 100% of 134 000 EUR)	Reached almost AA studio level, now split into several smaller entities	Long-term video game company with significant success in mobile and VR fields	Mobile, VR	10.04.2026	1 hour 41 sec
Company B (est. 2016): VR case, co-founder of the company	2021 (3% of 125 000 EUR)	Service provider initially, now a mix of service provider/ indie studio	VR service company turned into indie developer (VR games)	VR	10.04.2026	39 min 4 sec
Company C (est. 2017): Indie case, co-founder of the company	2020 (almost 100% of 337 000 EUR)	Indie studio	Indie developer, with several successfully launched games	PC, then consoles & mobile	14.04.2026	56 min 30 sec

Source: compiled by author

3.3 Data collection and method of analysis

The interviews were recorded after explanation of the study purpose, and data handling, ensuring the participants understood their privacy and confidentiality protections as suggested by Yin (2018). The content was transcribed with the help of AI using Google Colaboratory with OpenAI Whisper for automatic speech recognition. Careful manual review was carried out to double-check the correctness of data. The empirical material was analyzed with the help of an AI model (Claude Opus 4.6). Rather than seeking statistical generalization, the study aims for analytic generalization by relating the interview findings back to theoretical explanations of internationalization. The focus is on how Estonian video game development companies internationalize from a small domestic market.

Next step involved coding activities with the help of Claude Opus 4.6 model, focusing on theoretical relevance, theory-driven thematic coding, pattern matching, and explanation building. The task involved informing the AI model of the underlying theories and theory-based interview questions before coding. Based on the insights and interview transcriptions, AI provided 25 codes (see Table 4). The created codes included codes stemming from the literature review, for example: "small market constraints," "platform dependence," "outsidership," "dynamic capability" as well as codes generated from the interviews' content. This also included patterns not anticipated by the theoretical framework, including: "founder alignment," "platform window of opportunity," "internationalization by experimentation". To increase credibility of the coding, manual checking and cross-case comparison of the transcripts was made by author including outlining direct quotations. As a result six final themes were formed by author(see Table 4), that aligned well with the underlying theories accordingly:

- (1) Theme 1 - Immediate global orientation, supporting the underlying internationalization theories, for example small market constraint leading to internationalization, supported by online platforms;
- (2) Theme 2 - Platform governance and algorithmic discoverability - supporting partly BD/INV perspective (platform dependence and developer information deficit), and providing industry-specific insights (wishlists funnel, window of opportunity, increasing discoverability);
- (3) Theme 3 - Network embeddedness and liability of outsidership - supporting the updated Uppsala model and specifically liability of outsidership mentioned by all three interviewees as well as need for physical presence for trust building and regional partnership for localization, with additional industry insights (role of content creators, support by other developers);
- (4) Theme 4 - Strategic repositioning and dynamic capabilities - supporting the dynamic capabilities perspective (platform-driven pivot and reconfiguration of business models) and industry-specific franchising strategy and scope discipline;
- (5) Theme 5 - Founder alignment and resource constraints - supporting mainly RBV (bootstrapping, talent acquisition and burn rate management), but also founder misalignment issues;
- (6) Theme 6 - Estonia's contextual conditions - supporting both Uppsala model as well as RBV (digital country reputation, absence of game industry infrastructure and proximity to successful Nordic markets) and local community as a test audience.

Table 4 Final themes based on coding of the interviews (n=3)

Theme	Code	Code description	Data source
T1: Immediate global orientation	Born global intent	International-from-inception logic	A, B, C
	Small market constraint	Domestic market negligibility	A, B, C
	Digital platform as entry vehicle	Platform as substitute for FDI	A, B, C
T2: Platform governance and algorithmic discoverability	Platform dependence	Algorithm change risk	A, B, C
	Window of opportunity	Early-mover advantage on platforms	A, B
	Wish-list funnel	Pre-release interest accumulation	B, C
	Naming / icon clarity	Discoverability through visual signalling	A
	Platform transparency asymmetry	Developer information deficit	B, C
T3: Network embeddedness and liability of outsidership	Liability of outsidership	Exclusion from insider networks	A, B, C
	Conference networking (GDC, Gamescom)	Physical co-presence for trust building	A, B
	Content creator relationships	Influencer ecosystem as network node	B, C
	Developer community reciprocity	Co-opetition among indie studios	B, C
	Regional partnership	China/Asia localisation partners	C
T4: Strategic repositioning and dynamic capabilities	Platform-driven pivot	Sensing and seizing new platforms	A, B
	Reconfiguration of business model	Service-to-product transition	A, B
	Franchise strategy	Deepening over diversification	A, B, C
	Scope discipline	Production constraint as quality driver	C
T5: Founder alignment and resource constraints	Founder misalignment	Divergent strategic intent	A
	Bootstrapping	Self-funding internationalization	A, C
	Talent acquisition constraints	Small-market human capital scarcity	B, C
	Burn rate management	Financial runway as strategic variable	B, C
T6: Estonia's contextual conditions	Digital country reputation	Institutional image as soft asset	B, C
	Proximity to Nordic markets	Geographic/psychic proximity	B
	Absence of game industry infrastructure	Peripheral ecosystem constraints	B, C
	Local community as test audience	Niche domestic feedback value	C

Source: compiled by author based on interviews (n=3), Claude Opus 4.6 initial coding and manual review

4. Findings and discussion

This chapter presents and interprets the empirical findings from the three semi-structured interviews with co-founders of Estonian video game development companies. Findings and discussion are integrated, because the empirical material is closely connected to the theoretical framework of the study. Six key findings are presented in turn, each described by the author based on coded topics, cross-case evidence and interpreted through the theoretical lenses of the Uppsala model, BG/INV theory, BD perspective and the RBV with dynamic capabilities. Direct quotations from the interviews are used to illustrate and verify the analysis. Case summaries are available as Annex II and a table with cross-case comparison of findings are available as Annex III.

Finding 1: Born Global by necessity - small market size is a structural driver of immediate internationalization

The cases reinforce previous evidence that small-market creative firms tend to internationalize early (Cavusgil & Knight, 2015; Cunningham et al., 2012; Knight & Cavusgil, 2004; Stallkamp & Schotter, 2021), but they also demonstrate that this is less of an entrepreneurial choice and more a necessity when domestic demand is small. All three studios expected from the outset that domestic revenues would be insufficient and therefore built their business models on global platforms rather than local distribution. This fits well with BG/INV perspectives, which emphasize early foreign orientation and niche-seeking behaviour (Knight & Cavusgil, 2004), yet the mechanism here is strongly push-driven: the small home market leaves little alternative to immediate international focus.

All three cases still show learning, uncertainty reduction and increased commitment over time. Learning happens through platform data, player feedback, reviews, wishlists, community reactions, and repeated product experiments rather than through gradual expansion from one market to another. Digital channels also compress the temporal dimension of learning, aligning with updated Uppsala views, that internationalization is a non-linear process of experimentation under uncertainty. (Johanson & Vahlne, 2009) Instead of a slow sequence of country entries, Company A (2026) describes ten months of intense trial-and-error, cycling between different game concepts, monetization models and positioning tactics. Company C's eight-month pre-production and production cycle is similarly fast but deeply planned, treating each game as "*basically a new startup*" (Company, 2026) with a wide range of possible outcomes. The emphasis on testing hypotheses, iterating

rapidly, and accepting that every game is basically a new startup provides more support to effectuation and dynamic capability perspectives than rigid stage models supporting the findings by Astuti (2024): digital entrepreneurs prioritise avoidable loss, conducting experiments by developing diverse games and sell them on various platforms, to learn, what the players want.

For two of the three companies (Companies A and C), the international market was implicitly assumed from the first commercial release. For Company B, the domestic market was served during an initial service phase, but the transition to game development was explicitly framed as a move towards a market that "*there's nothing stopping us from actually competing in that market at a global level*" (Company B, 2026).

Company C articulated this dynamic with particular clarity. When asked whether being located in a small market affected the studio's orientation, the interviewee stated: "*It's definitely relevant... Estonia has a good reputation of being a digital country, so in that sense it helps. The market itself is in the grand scheme of things, not a priority, but still relevant... you can't really rely on big customer numbers in Estonia for your games*" (Company C, 2026).

The domestic market was thus acknowledged as useful for prototype testing and community feedback "*you can find that niche that you are targeting in Estonia and start from there*" (Company C, 2026) but was never conceived as a commercially sustainable endpoint. Company A's founding narrative makes this even more explicit: the Android market that Company A launched into in 2008 was globally distributed by design. The studio launched the game first and then registered the company in 2009. The studio's first release was priced at USD 0.99 and aimed at the entire Android user base, which at the time was concentrated in the United States, a market the founders were not physically part of but could access without friction. There was no domestic phase of internationalization in the Uppsala sense; the very first product launch was, functionally, an act of global market entry.

The structural driver common to all three cases was therefore the small-country constraint operating in conjunction with the zero-marginal-cost global distribution supported by digital platforms. All three interviewees referenced this combination as the defining condition of their internationalization context, with Company B noting: "*I was talking with a friend who is in a completely different business and like when he's exporting to Poland he needs to have an office in there and kind of work with the regulators /.../ and we just basically upload a game on Steam and just tick the boxes like what countries we want the game to be available*" (Company B, 2026).

The findings therefore suggest that small-market game firms can be described as BG by necessity. Their internationalization is caused by the combination of limited domestic demand and globally accessible digital infrastructure. This does not mean that they are automatically successful BGs. It means that they are forced to compete internationally before they necessarily possess the resources, legitimacy, networks, or market knowledge needed to do so effectively.

Finding 2: Platform ecosystems are the primary arena of international competition: governance, discoverability, and risk related topics

The findings show that the Uppsala model's focus on uncertainty and learning remains relevant, but the main locus of uncertainty shifts to platforms and algorithms. Across all three cases, digital platforms, mainly Steam (PC and VR games), with secondary references to Google Play, the Apple App Store, and Meta Quest, were identified as the primary arena in which internationalization competed and succeeded or failed. The platforms did not merely facilitate distribution; they actively shape competition through algorithmic governance, promotional featuring, and the configuration of discovery pathways. All three interviewees expressed a form of ambivalent dependency: platforms were understood as essential infrastructure and as sources of asymmetric risk.

The theme of algorithmic discoverability was most developed in the accounts of Companies A and C. Company A's breakthrough on the early Android market was achieved by learning that naming clarity and icon legibility were the primary determinants of organic discovery in an environment where *"the only distribution channel really was just in category, basically"* (Company A, 2026). Renaming their game to the literal descriptor "Basketball Shots" and making it freely available produced immediate traction: *"we got some initial traction, got into some of the genres, got more production, and got the game set up in the top ten of the sports category"* (Company A, 2026). This discovery that the platform rewarded legibility over creativity in low-attention browsing context, was a form of market-specific knowledge that the studio accumulated through repeated experimentation and failure, consistent with the Uppsala model's emphasis on experiential learning.

Company C (2026) added to this logic through the concept of the wish-list funnel: *"The first like 48 hours after releasing a game are very critical. You need to make a big splash because what happens then is that platforms give you additional visibility based on how many people are already interested."*

Company B (2026) described the Steam platform's promotional philosophy: *"the official policy of Steam is that if you want to be more visible on our platform, bring people from other platforms to our platform, like go to events, make marketing campaigns, like make YouTube videos and then people from those channels come to Steam. And then when they see a lot of people coming to your page, then they will show it because their goal is to make more money."* This account reveals the platform's incentive structure: discoverability is rewarded to those who have already demonstrated demand through external channels, creating an effect that disadvantages studios without prior audience relationships or marketing budgets.

Platform governance risk was articulated most forcefully in Company A's account of its mobile decline and in Company B's description of Meta's strategic instability. Company A described how Facebook's decision to restrict organic page reach to ten percent of followers destroyed a distribution channel that had been central to the studio's user acquisition strategy. Company B (2026) was explicit about Meta: *"You don't know what the strategy will be the next month... some studios spend millions and spend years making the game and on the day of their release Meta changes their algorithm and now they are not visible and basically close down the studio because they have no chance of making back that money. So this platform control can be very, very scary because, you know, how can you commit to a strategy when you don't know the platform strategy?"*

Company C (2026) offered a complementary perspective on the information asymmetry in platform relationships: *"platforms are usually extremely tight-lipped about how that works... you are not told how your game is getting exposed directly. You don't see any deep metrics or the reasoning behind it. You don't see algorithms, so to speak... It's not like a two-way street. It's a one-way street into a black box."*

These findings position platform governance as a distinct form of environmental uncertainty that cannot be eliminated but must be actively monitored, mitigated, and where possible worked around through multi-platform strategies and deliberate external traffic generation. The Uppsala model's emphasis on uncertainty and learning remains relevant here, but the main locus of uncertainty has migrated from foreign market conditions to platform behaviour. The Born Digital perspective (Stallkamp & Schotter, 2021) receives strong support: digital channels compress international access while simultaneously creating new dependencies rooted in gatekeeping, algorithmic governance, and (often) non-transparent commercial relationships.

Finding 3: Networks, insider access, and the liability of outsidership

All three cases evidenced the concept of liability of outsidership described by Johanson & Vahlne (2009). The disadvantage experienced by actors who are not members of relevant business networks manifesting at multiple levels: the liability of being Estonian in a Scandinavian or North American-dominated industry, the liability of being a small and relatively unknown studio in relationships with publishers and platform holders, and the liability of being geographically peripheral to the main centres of game industry knowledge-sharing and deal-making.

Company B (2026) described the experience of this liability most directly in the context of its early export attempts to Finland, where potential clients systematically preferred domestic suppliers regardless of comparative competence: *"Finnish companies were not interested in ordering any kind of creative things or technological things from Estonia or any other countries... they have a very protective view about this part... even if they don't have experience, we prefer them"*. This account illustrates how relational trust and institutional proximity, rather than technical capability, governed access to early international opportunities, confirming the Uppsala model's insight that psychic distance encompasses more than geographic proximity or linguistic difference.

Company A (2026) reflected on the experience of attending international conferences (e.g. Game Developers Conference (GDC) in San Francisco), as an outsider from a peripheral game development market: *"When you are at the GDC and everybody is like, /.../ 20 years of history, everybody, you know, the people you are at the hotel working with, /.../ they've been playing golf together for 15 years. /.../ And that drained a lot of energy from me."* Despite this discomfort, the interviewee also described an unexpected positive encounter at a conference, where a chance meeting with a senior developer at a major studio produced strategic intelligence about where the market was heading. The problem was that this intelligence could not be carried effectively back to co-founders who had not attended and did not share the same experience: *"I was going out there and talking to people who were obviously doing things better than us... but I couldn't really sell this back at home"* (Company A, 2026). This points to a secondary consequence of the liability of outsidership: even when insider knowledge is accessed, its translation into organisational action depends on internal alignment.

Company C addressed the liability of outsidership at the level of Estonia's country image, describing how high-profile corporate failures (a reference to the Disco Elysium legal dispute and the bankruptcy of Gamecan) cast shadows over the country's game development

sector: *"when people find out, oh, you're from Estonia, it's like, that's pretty cool. And then they find out of like these high profile... drama, /.../ And then anybody who's like supposed to partner up with you is like, what is this shit show?"* (Company C, 2026).

The interviewee contrasted Estonia unfavourably with Nordic competitors, where government sector branding had actively reduced the liability of outsidership for domestic studios. This points to an important gap: while Estonian studios benefit from the country's general digital reputation, the absence of coordinated game-industry branding leaves individual studios to manage country-of-origin risk independently, a structurally costly burden for small firms with limited public relations capacity.

Across the three cases, reducing the liability of outsidership required sustained investment in relational capital, country-of-origin positioning, and deliberate network embeddedness — investments that small studios operating on tight budgets and short production timelines find difficult to sustain consistently.

Finding 4: Content creators and community as substitute for traditional marketing infrastructure

A distinctive feature of all three cases, and particularly of Companies B and C, was the use of content creators (YouTubers, streamers, TikTokers) and online communities (Discord, Reddit) as the primary mechanisms for building international awareness and driving sales. This approach was not incidental but deliberate, arising from the constraints of limited marketing budgets and the structural features of digital media consumption among the target audience of game players.

Company B (2026) described content creators as its most important marketing channel: *"our main marketing channel is content creators, like YouTubers and TikTokers and live streamers. And they, yeah, we have good contacts with them. We have like a database of platforms who we send our news when we have updates, we send them game keys... we count on the organic pitch and the organic playing of the games by these content creators."* The interviewee characterized this approach as one that worked because content creators were motivated to produce content that entertained their own audiences, creating a symbiotic relationship with game developers producing content those audiences would enjoy. He also added, that content creators have displaced traditional game journalists as the primary gatekeepers of game discovery.

Company C (2026) reported a version of this dynamic that highlighted the asymmetric and partly uncontrollable nature of creator-driven visibility. Its early success was

substantially driven by coverage from prominent Youtubers, who discovered the game independently through unsolicited game key distribution: *"we had some very big influencers... Like it's so many, so many people who actually discovered the game. It's hard to call them like direct partners because usually you are not even communicating with them directly"* (Company C, 2026). The studio's interviewee described this as *"a symbiosis. Like, you make the games that they can play to entertain their audience. And their audience can then convert into players of your own game because they want to experience themselves"* (Company C, 2026). The reliance on organic creator discovery represents a high-variance strategy: it produced transformative visibility for Company C's first game, but the same mechanism cannot be reliably reproduced in subsequent projects.

Company C also described a parallel strategy of cross-developer community building through bundle partnerships and cross-promotional collaborations with other indie studios making similar games: *"getting together with like-minded game developers or game developers that are making similar games to yourself, like either in tone or genre or whatever, then these are your nearly like the most valuable partners that you can have"* (Company C, 2026). This model represents a form of co-opetitive network behaviour in which competitive rivals pool audience exposure for collective benefit, consistent with the relational turn in the Uppsala model (Johanson & Vahlne, 2009).

Company A's account provided a longitudinal perspective on the evolution of community expectations. The interviewee noted that the industry had shifted from a model in which games were released as finished products to one in which ongoing community engagement (content updates, bug fixes, developer communication) was a baseline expectation: *"there's this expectation that every game will get content updates and bug fixes and improvements and optimizations... we have to sort of prove or show the outside that we are very, very active with development... the downsides of not doing that means that you might turn the community against you"* (Company A, 2026).

This model, pooling audience exposure with competitive rivals for collective benefit, is consistent with the relational turn in the revised Uppsala model (Johanson & Vahlne, 2009) and with the BD literature's emphasis on community-mediated value creation (Nucciarelli et al., 2017).

Company A (2026) added a longitudinal dimension, noting that the industry had shifted from a model in which games were released as finished products to one in which sustained constant community engagement, meaning that constant content updates, bug fixes and developer communication had become baseline expectations by players. Failure to

maintain this engagement risked turning the community against the studio. Community, in this framing, is not merely a marketing channel but an ongoing relational obligation that shapes product strategy and studio reputation over time

Finding 5: Dynamic capabilities - sensing, seizing, and reconfiguring in response to platform and market shifts

The resource-based view and dynamic capabilities framework were strongly supported. The resource-based view holds that competitive advantage derives from VRIN: valuable, rare, inimitable, and non-substitutable resources (Barney, 1991), while dynamic capabilities theory stresses the importance of sensing change, seizing opportunities, and reconfiguring resources in volatile environments (Teece et al., 1997). Across the cases, three resource categories were especially important: medium-specific expertise, community and relationship capital, and localization capability. Dynamic capabilities were visible in firms that successfully adapted to platform shifts, market changes, and new technological opportunities. At the same time, the findings indicate that such capabilities are constrained by internal organizational conditions, particularly founder alignment and project governance. The data also suggests that organizational independence can be considered a strategic resource, as this is preserving creative and strategic flexibility.

Company A provided the most extensive evidence of platform-responsive reconfiguration, spanning three major strategic pivots across fifteen years: from premium Android games to free-to-play mobile, from diversified mobile to focused franchise, and from mobile to VR. The initial monetization pivot from paid to free-to-play with embedded advertising, demonstrated rapid environmental sensing and willingness to act under uncertainty: *"we looked at it, I thought, you know, okay, we should explore this opportunity and apply a movement... when you do fast, otherwise, other people will probably do it"* (Company A, 2026).

The VR pivot, initiated in 2017, was a more deliberate strategic departure: *"VR games made zero money. There were just a bunch of answers on the market... So that was a complete departure from our focus, as a mobile news company"* (Company A, 2026). The interviewee framed the subsequent success of the VR franchise as the result of a capability and understanding of the VR medium through client project experience, that larger and better-funded competitors lacked. This pattern, building rare capabilities through adjacent, lower-stakes engagements before deploying them competitively, is consistent with the RBV's

emphasis on capability development as a precursor to sustained international advantage (Barney, 1991).

However, Company A's account also illustrated the structural limit on dynamic capability at the firm level. The studio's failure to deepen its most successful mobile franchise was attributed to founder misalignment rather than a failure of market sensing: *"We had this conviction that we are not good enough. The product is not enough. We need to do something else... But on the higher side, it was more arrogance than humility in my opinion, because we were assuming that we could replicate the success somewhere else"* (Company A, 2026).

Dynamic capability frameworks typically treat the firm as a unitary actor; this case suggests that intra-organizational misalignment can prevent the conversion of market sensing into timely strategic action.

Company B's service-to-product transition was a seizing response to a clear market signal: VR gaming was the only commercially reliable segment of the VR market. The interviewee described this as a deliberate pivot supported by existing medium-specific capabilities: *"we have worked in it for a long time. And the client projects also were a good school for that part... we can see how some game developers don't have that, even very, very big and very well-funded companies from well-connected countries"* (Company B, 2026). The accumulated capability base developed through diverse, short-duration client projects represented a form of experiential asset that was not replicable through formal training or technology investment alone.

Company C's reconfiguration capability was most visible in its localization strategy, which was iterated in response to ongoing community and sales data rather than pre-planned at launch: *"we gathered feedback from the community and saw like, well, people from which language and cultural backgrounds are giving us feedback... And we quickly identified a few"* (Company C, 2026). The discovery that China represented the dominant market opportunity, and the subsequent decision to partner with a localization studio, was an action triggered by data signals rather than a priori strategic planning. This iterative, evidence-driven trajectory is consistent with the emergent market entry logic of the revised Uppsala model, but executed entirely through digital feedback channels rather than through physical market presence.

Finding 6: Localisation as the primary internationalization capability for PC/Console developers

A finding that emerged inductively from the data and was most prominently evidenced in Company C, with supporting evidence from Company B, was that localization

represented not merely a complementary feature but a key internationalization decision available to PC and console game studios. The decision to localize into a specific language and cultural context was described as the mechanism that unlocked previously inaccessible market segments, with effects that were sometimes transformative on a scale.

Company C's experience was the most striking: a single localization partnership with a Chinese studio converted China from a peripheral market to the studio's single largest revenue source, representing 50-70% of total sales over an extended period. The interviewee reflected: *"They reached up with a proposal that they will translate and localize our game and also handle local marketing and local storefront interest, /.../And that put China as the number one region for sales for our game for a long time."* (Company C, 2026).

The interviewee also noted the critical importance of cultural as separate topic from linguistic localization. The game's concept, a satirical treatment of bureaucratic labour, resonated with Japanese and Chinese "salaryman" cultural archetypes in ways that the studio had partially anticipated through its cross-cultural design research during development: *"Our game was playing on this kind of like typical salary man, like a Japanese salary man, like a day-to-day life parody. And we felt that it could be quite popular there and it has"* (Company C, 2026). Cultural resonance was thus a precondition for the effectiveness of linguistic localization, suggesting that internationalization-oriented product design was a form of proactive capability development.

Company B's account of its own localization approach was more recent as the studio was still developing its game at the time of interview. But its discussion of platform-level regional pricing tools and its interest in making the game accessible to PlayStation VR users globally pointed to the same underlying logic: that the ability to tailor market presentation (pricing, language, platform compatibility) to regional conditions was a prerequisite for realizing the market potential. The interviewee observed: *"these platforms do a lot of things for you... regionality and handling the whole international part of launching games and maintaining them is usually quite easy"* (Company B, 2026). Thus, platform infrastructure is an enabler of localization capability for studios that might otherwise lack the resources to manage multi-market legal, tax, and distribution complexity independently.

Company A's experience with localization was less prominent, reflecting its historical focus on hyper-casual mobile games where international appeal was built into simple, visually universal gameplay mechanics rather than narrative or textual content. However, the studio's later emphasis on franchise depth and community retention suggested that cultural accessibility and reach would become increasingly central.

5. Conclusions

This thesis examined how video game development firms from a small domestic market internationalize, using the Estonian video game industry as the empirical context. Three research questions set up during the introduction, were answered accordingly:

Research question 1 asked how video game development firms from small domestic markets initiate and scale international activity? The answer, based on this study, is that initiation is structurally determined by the absence of a viable domestic market combined with platform-enabled global distribution from inception. Scaling is achieved not through sequential geographic expansion but through iterative product experimentation, community cultivation, localization partnerships, and platform management. Timing is immediate; sequencing is replaced by iteration.

Research question 2 asked how digital platform ecosystems reshape learning, network formation, and commitment patterns relative to traditional stage models? The findings show that platforms support temporal learning through analytics, player feedback, and wish-list data, while simultaneously concentrating risk in algorithmic governance and policy decisions made unilaterally by platform owners. Networks are formed through digital communities, content creator relationships, and cross-developer collaborations rather than through physical market presence. Commitment patterns reflect platform strategy as much as market opportunity: studios calibrate investment to platform reliability, and platform instability can reverse commitment decisions rapidly.

Research question 3 asked which resources and capabilities are most critical for small-market game firms to internationalize and overcome liabilities of outsidership. Three resource categories emerged as most consequential:

- medium-specific expertise accumulated through adjacent project work;
- community and relationship capital built through content creators, co-developer networks, and player communities and
- localization capability, both in culturally resonant product design and in flexible partnership architecture.

Across all cases, organizational independence, the preservation of creative and strategic autonomy, also emerged as a resource that sustained long-term adaptability. Dynamic capabilities, particularly the ability to sense and respond to platform shifts, distinguished the more resilient trajectories from those constrained by internal misalignment.

Overall, the findings show that internationalization in this setting is typically early and necessity driven. Firms do not expand abroad after consolidating a strong home-market position; rather, they enter international markets early because the domestic market is too small, while digital distribution platforms make cross-border reach immediately possible. At the same time, the study shows that early platform access does not by itself ensure international success and successful firms combine internationally resonant product concepts, active platform management, strong community relationships, and adaptive strategic capabilities. Less successful trajectories were associated with internal misalignment, dependence on platform visibility alone, and movement away from established strengths.

The main contribution of the thesis is to show that internationalization in small-market video game firms is best understood as a platform-mediated and capability-dependent process. Digital platforms lower traditional entry barriers, but they also create new dependencies related to discoverability, platform governance, ecosystem partners, and ongoing player engagement. In this environment, international performance depends less on simple access to foreign markets and more on the ability to manage ecosystems, position products clearly, build communities, localize effectively, and adapt after launch. The findings also indicate that internal strategic alignment matters: firms with clearer priorities, stronger founder alignment, and better post-launch adaptation were more successful in converting international reach into sustained traction.

Theoretically, the results suggest that no single internationalization perspective is sufficient on its own. The Uppsala model helps explain uncertainty, learning, and network dependence, but it does not fully capture the early timing of expansion observed here. Born global and born digital perspectives better explain why internationalization occurs early, while resource-based and dynamic capability perspectives help explain why some firms perform better than others once internationalization has begun. Overall, small-market digital game development firms internationalize early because they must, do so digitally because they can, but succeed only when they develop the capabilities and network positions needed to successfully operate within platform ecosystems.

The study is limited by its small qualitative sample and its focus on one national industry context. The insights derived reflect the experiences of selected industry experts and may not represent all Estonian nor other small market game developers. As qualitative methods prioritize depth over breadth, the findings are valuable for understanding nuanced processes in under-researched sectors.

Future research could extend the analysis through comparative and longitudinal studies, particularly by including less successful or failed studios. Also by expanding the sample, incorporating quantitative performance measures and/or conducting comparative studies with other small-market ecosystems.

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ANNEX I - Semi-structured interview

Disclaimer: the study followed standard ethical guidelines for qualitative research. Each participant has been informed about study's purpose, data usage, and voluntary nature. Informed consent has been obtained before each interview. Information has been anonymized, and data has been stored securely.

Estimated duration: 45-60 minutes

Mode: online video call or in-person

Type: semi-structured expert interview

Recording: audio recorded with consent

Transcription: Google Colaboratory + openAI Whisper + manual review

Part 1 - Introduction and informed consent

Date:

Duration:

Role of respondent: e.g. founder, CEO.:

Part 2 - Background and company profile (if possible, filled before from public sources, e.g. Estonian Business Registry, company website and social media)

Company founded in:

Types of games/services:

Platform: PC/console/mobile/VR/other

Business model: developer, publisher, service provider, mix

Team size (FTE):

Revenue 2024 and/or 2025:

Main markets and business model:

Revenue distribution across markets: (%)

Topic A: Beginnings and small-market reality (home country constraints)

- (1) When was the company founded and why?
- (2) How does being located in a small market affect your studio day-to-day (sales potential, funding, talent, partners)?

- (3) When did you realize you needed international players/sales to survive or grow? What made you realize that?

Topic B: How you went international (timeline and choices)

- (4) Tell the story of your first “international steps” (first global launch/sales, first foreign publishing deal, first localization, first console/mobile release). Why did it happen then?
- (5) How do you decide which markets/languages/platforms to focus on now?
- (6) How is the current market situation in your field?

Topic C: Platforms and discoverability

- (7) Which platforms matter most for you, and what do they make easy vs. hard (rules, fees, certification, visibility)?
- (8) How do you increase visibility for your projects?
- (9) What have you learned about getting visibility on platforms (store page, tags, festivals/events, pricing, updates)? What clearly worked or did not work?

Topic D: Networks, partners, and “insider access”

- (10) Who outside your studio has been most important for success (publisher, platform contact, influencer, localization/porting partner)? How did you find them?
- (11) Have you missed opportunities because you lacked connections or trust (for example, promotion, partnerships, funding)? What would have helped you earlier?

Topic E: What you do well vs. struggle with (capabilities/resources)

- (12) What are your studio’s biggest strengths that helped you succeed (game quality, production, marketing, community, analytics, partnerships)?
- (13) What are your biggest weak spots that increase the risk of failure (skills, time, money, processes)? How do you try to fix them?

Topic F: Learning, adaptation, and post-launch work

- (14) After launch, how do you decide what to change (patches, content, monetization, community management)? What signals do you use?
- (15) Looking back at your biggest success or failure, what were the top two reasons? What would you do differently next time?

ANNEX II - Case summaries

Company A - from a mobile pioneer to VR franchise

Company A was founded in 2009 after its lead founder, a software developer, was made redundant and recruited former managers and colleagues to develop mobile games for the emerging Android platform. The firm's early internationalization was opportunistic rather than strategic. Its first paid titles generated little revenue, but the studio learned that early Android success depended on simplicity, clear naming, recognizable icons, and free-to-play advertising models. A renamed free basketball game gained traction, and a later racing game, developed quickly to exploit a new Google Play category, achieved 40,000 downloads on its first day and raised revenues to a peak of around €400,000 per month. Micro-transactions further boosted income. However, the studio became highly dependent on platform visibility and monetization conditions.

Internal strategic misalignment among the three co-founders weakened the company's ability to consolidate its success. Rather than deepening its strongest franchise, the studio diversified across genres, missing the monetization window later exploited by competitors such as Supercell. By 2022, algorithmic changes, rising user acquisition costs, and disruption from the war in Eastern Europe had eroded its mobile business. From 2017, a team within the studio developed a VR game as a side project. Although initially poorly received, iterative improvements raised its Steam reviews to over 90% positive, making it the company's new commercial anchor. Company A then shifted from being a platform-dependent mobile studio to a franchise-oriented VR developer, while continuing to assess whether to expand the franchise through another VR title or a non-VR adaptation.

Company B - from a VR service provider to indie game developer

Company B was founded in Estonia in December 2016 to produce custom VR experiences for clients. The founder's prior film-school background and early exposure to VR in Finland gave the studio rare domestic production expertise, allowing it to establish a privileged position in Estonia's small VR service market. However, this advantage was understood as temporary. Early internationalization attempts were constrained by the limits of exporting creative services. Efforts to enter Finland failed due to protective local procurement norms, while a later product-based tourism VR attraction was derailed by the COVID-19

pandemic shortly after launch. These setbacks highlighted the difficulty of scaling service work internationally compared with owning a distributable product.

As the VR market matured around games, Company B pivoted from client services to game development. Its service portfolio had functioned as a learning environment, building technical and design capabilities across VR platforms. The studio's flagship game was live on Steam, with a PlayStation VR release planned. Company B also developed a deliberate community-building strategy, maintaining relationships with content creators, streamers, and influencers. Its platform strategy remained cautious: while Steam was prioritized as a relatively transparent distribution channel, Meta Quest was viewed as risky due to opaque and shifting algorithmic governance. At the time of interview, the company remained a small Estonian team, constrained by limited local VR talent and weak funding infrastructure.

Company C - a niche indie developer with global community

Company C was formally established in 2017 to receive municipal funding from the City of Tartu, but its main indie game entered production in July 2019 and launched in February 2020. The three-person founding team self-financed development from personal savings and deliberately avoided publisher involvement. Its first project benefited from tight scope control, disciplined production, and unusually detailed pre-production.

Internationalization was embedded in the game concept from the outset. Built around death and cultural rituals of mortality, the game was designed for a global audience, with research into cross-cultural representations shaping its development. Console releases on Nintendo Switch, Xbox, and PlayStation expanded its reach beyond PC. The studio's most important internationalization mechanism was localization based on demand signals. Sales and community data led it to prioritize Brazil, Russia, Japan, and China. A partnership with a Chinese studio, which handled localization, marketing, and storefront relations, made China the company's dominant market, accounting for around 50-70% of total sales at the time of interview. Company C's discoverability strategy combined Steam wish-list management, Discord-based community building, creator outreach, and bundle partnerships with similar indie studios. The studio treated transparency and community engagement as long-term visibility assets. Its later project was less successful, entering early access unfinished after delays and budget exhaustion. The interviewee attributed this to excessive openness in decision-making, weak scope control, and slow workflow. This became a cautionary contrast to the disciplined process that had enabled the first game's success.

ANNEX III - Cross-case comparison of thematic findings

Theme / Finding	Company A	Company B	Company C
F1: Born global by necessity	Fully born global from first Android release in 2008; no domestic phase; global Android market targeted directly	Initially served Estonian domestic VR service market before recognizing its limitations; became fully global-oriented upon pivot to games	International-from-inception in product design and distribution; domestic sales emerged briefly due to Estonian community support but were never the target
F2: Platform governance and algorithmic discoverability	Pioneered naming-clarity and clear icon-legibility on early Android; later lost traffic due to Facebook organic reach restrictions; identified "window of opportunity" as time-bounded platform advantage	Prioritizes Steam as primary platform; avoids deep commitment to Meta due to strategy opacity and algorithm instability; uses content creators to generate external traffic that platforms reward with algorithmic amplification	Manages Steam wish-list funnel as primary pre-release metric; achieved front-page featuring through direct communication with Steam staff; identifies 48-hour post-release window as critical visibility period
F3: Network embeddedness and liability of outsidership	Experienced outsidership discomfort at GDC; obtained valuable strategic intelligence through serendipitous conference encounters but failed to transmit it internally; identified founder isolation as compounding outsidership	Directly encountered protectionist exclusion from Finnish clients; acknowledges that Estonian geographic peripherality reduces business connection access; notes that being from "unknown country" affects publisher trust	Notes that Estonia lacks the government-backed international game development brand of Nordic peers; experienced reputational contamination from high-profile Estonian industry failures; leverages co-developer network bundles to extend reach

F4: Content creators and community as marketing infrastructure	Evolved community expectations: recognizes post-launch community maintenance as obligatory; earlier period relied on platform organic reach	Content creators are the primary marketing channel; maintains database of YouTubers and streamers; relies on organic key distribution to attract coverage	Organic content creator discovery drove initial visibility; sustained 4-5k member Discord community; cross-developer bundle partnerships with similar studios
F5: Dynamic capabilities - sensing, seizing, reconfiguring	Three major strategic pivots across 15 years; dynamic capability impeded by founder misalignment in mobile phase; VR pivot converted accumulated client project capability into new franchise	Service-to-product pivot grounded in sensing of VR market maturation; VR medium expertise (built through diverse client projects) deployed as distinctive competitive capability	Localization iterated in response to community data and sales analytics; project-based team assembly enables flexible reconfiguration; Project failure attributed to reconfiguration governance failure
F6: Localisation as primary internationalisation capability	Limited explicit localization due to hyper-casual, visually-universal game mechanics; franchise model increasingly requires cultural accessibility for community depth	Nascent; platform-level regional pricing tools used; PlayStation VR expansion implies multi-regional distribution; cultural accessibility considered in medium choice	Most developed: Chinese studio partnership drove 50-70% of total sales; Japanese localization based on cultural resonance assessment; localization strategy iterated from community feedback and regional sales data
Founding year	2009	2016	2017
Primary platform	Android / Google Play → Steam (VR)	Steam → PlayStation VR	Steam, Nintendo Switch, Xbox, PlayStation, Mobile

International entry mode	Immediate global digital release	Domestic service → attempted export → games product global release	Immediate global digital release with console partners
Primary internationalization mechanism	Platform optimization (naming, monetization model)	Community building, content creator outreach	Localization partnerships, community, wish-list funnel
Key liability	Founder misalignment; platform dependence	Estonian peripherality; talent pool constraints; funding access	Country image; project governance; low liquidity
Current strategic orientation	VR franchise deepening; assessing platform expansion	VR game in development; Steam + PlayStation VR	Post-launch support of existing games; new project planning

Kokkuvõte

ETTEVÕTETE RAHVUSVAHELISTUMINE EESTI VIDEOMÄNGUTÖÖSTUSE NÄITEL

Henri Hanson

Käesolev magistritöö uurib Eesti videomängutööstuse näitel, kuidas rahvusvahelistuvad väikese siseturuga riigist pärit videomänguarenduse valdkonna ettevõtted. Töö keskendub kolmele uurimisküsimusele: kuidas mänguarenduse valdkonna ettevõtted alustavad ja liiguvad välisturgudele, kuidas digitaalsed platvormid nende rahvusvahelistumise protsessi kujundavad ning millised ressursid ja võimekused on eduks olulised. Teoreetiline raamistik ühendab nelja levinud mudelit ja nende uuemaid käsitlusi: Uppsala mudel, *born global/international new venture* ja *born digital* teooriad ning ressursipõhise käsitluse.

Metodoloogiliselt põhineb töö kvalitatiivsel uurimismeetodil. (Patton, 2015; Yin, 2018) Andmed koguti poolstruktureeritud ekspertintervjuude abil. Intervjuud viidi läbi kolme rahvusvaheliselt eduka Eesti mänguettevõtte asutajaga ning analüüsiti lähtudes ülalmainitud teooriatest.

Tulemused näitavad, et Eesti videomängutööstuse jaoks on rahvusvahelistumine vältimatu ja varajane. Kolmest intervjuueeritavast kaks tegid mängude arendamisega seotud esimese ekspordikäibe vähemalt kolme aasta jooksul peale asutamist ja üks viiendal tegutsemisaastal, peale edukat Eesti-sisest teenuste müüki. Eesti siseturu väiksuse tõttu ei saa mänguettevõtted toetuda ainult kohalikele klientidele. Seetõttu suunatakse fookus juba väga varajases, mängu kontseptsiooni väljatöötamise faasis, rahvusvahelistele mängijatele, platvormidele, levinumatele keeltele ja üheks peamiseks tegevuste eesmärgiks on mängu nähtavuse tõstmine sihtgrupi hulgas. Digitaalsed platvormid võimaldavad küll kiiret ligipääsu rahvusvahelistele turgudele, kuid üksnes tehniline kättesaadavus ei taga ärilist edu, sest turg on erinevate mängudega küllastunud. Otsustavaks saavad nähtavus platvormidel, nähtavuse ja kogukonna pidev kasvatamine, koostöö partnerite ja kogukonnaga ning võime turusignaale kiiresti tõlgendada ja nende põhjal kohaneda.

Platvormid on väikese turu ettevõtete jaoks korraga nii võimaldajad kui piirajad. Ühelt poolt lihtsustavad need müüki, maksustamisega seotud väljakutseid, rahvusvahelist levikut ja toodete esitlemist. Teisalt muudavad need ettevõtted sõltuvaks platvormide algoritmidest, nähtavuse reeglitest jm. platvormiomanike otsustest, mida arendajad ise täielikult ei kontrolli.

Intervjuude põhjal selgus ka, et edu ei sõltu ainult tehnilisest arendusvõimekusest või heast mänguideest. Olulised on ka organisatsiooniline ja strateegiline võimekus: selge väärtuspakkumise kujundamine, aktiivne suhtlus kogukonnaga, sobivate koostööpartnerite leidmine, järeltegevused pärast lansseerimist ning ettevõtte juhtide strateegiline üksmeel. Eriti oluline on võime kuulata turu tagasisidet ja kohandada tegevust vastavalt tegelikule nõudlusele, mitte ainult asutajate või arendajate enda eelistustele.

Töö järeldeb, et ükski levinud rahvusvahelistumise teooria eraldi ei kirjelda piisavalt hästi väikese turu videomängu valdkonna ettevõtete arengut ja rahvusvahelistumist. Kõige paremini aitab selgitada erinevate lähenemiste ühendamise:

- (1) ettevõtted rahvusvahelistuvad varakult, sest nad peavad seda tegema, et turule jääda;
- (2) nad saavad seda teha digitaalselt, sest platvormid võimaldavad kiiret ligipääsu lõppkliendile;
- (3) edu saavutavad eelkõige need ettevõtted, kes suudavad arendada vajalikke võimekusi ja tõsta silmapaistvust platvormidel ja muudes ökosüsteemides.

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Henri Hanson
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