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Determinants of eSports Adoption in Higher Education: A Conceptual Review

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Abstract

The rapid institutionalization of eSports in universities has shifted competitive gaming from a student-led activity into a structured campus initiative involving curriculum innovation, student affairs programming, facilities investment, and industry partnerships. Despite growing interest, higher education institutions adopt eSports unevenly due to differences in perceived value, implementation readiness, and stakeholder acceptance. This conceptual review synthesizes key determinants of eSports adoption in higher education by integrating evidence across technology adoption, organizational readiness, and socio-cultural legitimacy perspectives. Drawing on dominant lenses such as the Technology Acceptance Model (TAM)/UTAUT, institutional theory, and student engagement scholarship, the paper organizes determinants into five domains: (1) individual-level perceptions (usefulness), (2) institutional readiness (leadership support), (3) technological and infrastructural capacity (equipment), (4) educational alignment (co-curricular outcomes), and (5) environmental legitimacy (community acceptance). The review culminates in an integrative conceptual framework and a set of propositions to guide future empirical research and assist institutional decision-makers in planning sustainable eSports initiatives.

Keywords: eSports, Higher Education, Adoption Determinants, Institutional Readiness, Infrastructure, Educational Alignment

Introduction

eSports (electronic sports) is commonly conceptualized as organized competitive video gaming in which core sporting elements competition, performance, and spectatorship are mediated through digital systems and human–computer interfaces (Hamari & Sjöblom, 2017). In the last decade, eSports has evolved from informal student-led participation into a structured ecosystem that includes competitive leagues, regulated eligibility, training routines, and professionalized event formats. This broader institutionalization is increasingly mirrored in universities, where competitive gaming is no longer limited to clubs but is formalized through varsity-style teams, structured competition, and institutional recognition.

Within higher education, the institutionalization of eSports has accelerated because universities increasingly view eSports as a strategic initiative rather than merely a recreational

activity. Institutions link eSports to student engagement and campus belonging, leveraging team participation, community building, and shared identity to support the student experience (Kuh, 2009; Kahu, 2013). Universities increasingly connect eSports to digital-era skill development, especially teamwork, communication, and strategic thinking, which are frequently associated with structured competitive play (Zhong, 2022). eSports is also tied to external-facing priorities such as branding, recruitment, and partnerships, which pushes it beyond a student hobby toward an organized campus program that requires formal governance and resource allocation (Cote, 2023).

As eSports become embedded in campus life, universities have begun investing in enabling structures that resemble other institutional programs: dedicated facilities and equipment, IT/network upgrades, staffing models, student affairs programming, and links to academic innovation. For example, higher education eSports initiatives may include purpose-built arenas and labs, operational policies (eligibility, conduct, safeguarding), and structured programming that integrates student development, leadership, and employability pathways (Zhong et al., 2024; Cote, 2023). In parallel, some institutions have begun formalizing eSports through academic curricula and credential pathways, reflecting a shift from purely co-curricular participation toward programmatic integration within teaching and learning ecosystems (Scott et al., 2021; Jenny et al., 2021).

Problem Statement

Despite growing interest, eSports adoption in higher education remains uneven across institutions, jurisdictions, and campus types. This unevenness is partly explained by differences in perceived value whether decision-makers and stakeholders view eSports as aligned with institutional goals such as student engagement, graduate employability, and learning innovation (Kuh, 2009; Zhong, 2022). It is also shaped by implementation readiness, where adoption depends on leadership commitment, funding availability, cross-unit coordination (student affairs, IT, facilities, academic departments), and the institution's capacity to sustain operations beyond initial launch (Weiner, 2009; Cote, 2023). In practice, universities may support eSports informally through student clubs but hesitate to formalize programs when the perceived educational return is unclear or when resource demands appear high relative to competing institutional priorities.

In addition, institutional decisions are shaped by stakeholder acceptance and legitimacy concerns, which extend beyond student interest. Universities may face scepticism from faculty, parents, or community stakeholders regarding academic distraction, health implications, and whether eSports should be treated as sport, entertainment, or an academic field. Qualitative evidence suggests that incorporating eSports into higher education can generate both affordances (engagement, community, new learning opportunities) and constraints (governance ambiguity, balancing academic responsibilities, and cultural concerns about gaming), highlighting that adoption involves negotiation across multiple stakeholder groups (Zhong et al., 2024). These legitimacy concerns are consistent with institutional theory, which argues that organizational practices are influenced not only by efficiency but also by the need to conform to social expectations and gain legitimacy within an organizational field (DiMaggio & Powell, 1983).

Finally, the research landscape is still fragmented. Many studies focus on individual participation outcomes or fan motivations, while fewer provide integrative explanations of institution-level adoption in universities. As a result, institutions often lack a consolidated evidence base to guide decisions about program design (arsity vs club; co-curricular vs curricular; centralized vs distributed governance), investment priorities (infrastructure vs staffing), and sustainability planning (Cote, 2023; Scott et al., 2021). A clearer synthesis of determinants is therefore needed to explain why adoption progresses rapidly in some institutions while remaining limited or contested in others.

Aim and Guiding Questions

This paper aims to synthesize and integrate key determinants that influence eSports adoption in higher education, drawing on three complementary perspectives: technology adoption, organizational readiness, and socio-cultural legitimacy. From a technology adoption standpoint, eSports initiatives require stakeholder acceptance of digital systems and institutional platforms; therefore, constructs such as perceived usefulness (central in the Technology Acceptance Model) are relevant for understanding why stakeholders support or resist adoption (Davis, 1989). Similarly, UTAUT highlights the role of performance expectancy, social influence, and facilitating conditions constructs that map well onto university contexts where adoption depends on both perceived benefits and enabling support structures (Venkatesh et al., 2003).

From an organizational readiness perspective, adoption also depends on whether an institution has the collective resolve and capability to implement and sustain change. Organizational readiness emphasizes shared commitment and efficacy, shaped by task demands, resource availability, and situational factors elements directly relevant to launching and maintaining an eSports program (Weiner, 2009). At the same time, universities operate in an environment where legitimacy matters: institutions may adopt eSports partly due to external expectations, peer comparison, and perceived reputational benefits, consistent with institutional isomorphism mechanisms (DiMaggio & Powell, 1983). In addition, because eSports is frequently justified through student engagement claims, student engagement scholarship provides a useful lens for framing adoption goals and anticipated outcomes (Kuh, 2009; Kahu, 2013). The review addresses the following questions:

1. What determinants most consistently influence eSports adoption in higher education?
2. How can determinants be organized across five domains usefulness, leadership support, equipment/infrastructure, co-curricular outcomes, and community acceptance to reflect adoption complexity?
3. How do readiness and legitimacy conditions shape stakeholder acceptance and institutional commitment to eSports initiatives?
4. What propositions can be developed to guide future empirical testing and support evidence-informed institutional planning?

Contribution and Scope of the Paper

This conceptual review contributes by consolidating scattered insights into a coherent determinant structure that reflects how higher education institutions evaluate eSports adoption. Conceptually, the paper advances an integrative approach by aligning individual-level acceptance (perceived usefulness) with institutional readiness (leadership support and

collective implementation capacity) and environmental legitimacy (community acceptance and normative pressures). This integration is important because eSports adoption in universities is simultaneously a technology-enabled initiative, an organizational change project, and a legitimacy-sensitive institutional decision (Davis, 1989; Weiner, 2009; DiMaggio & Powell, 1983). Practically, the five-domain organization (1) usefulness, (2) leadership support, (3) equipment/infrastructure, (4) co-curricular outcomes, and (5) community acceptance offers a planning-oriented structure for institutional decision-makers who must align educational rationale with operational feasibility and stakeholder expectations.

In terms of scope, the paper focuses on eSports adoption within higher education institutions, including the establishment, formalization, and early implementation of campus initiatives. It covers both co-curricular models (student affairs-led clubs, varsity teams, scholarships) and academic-linked models (curricular, credentials, structured learning pathways), acknowledging that universities may adopt eSports in multiple configurations depending on institutional priorities and resources (Scott et al., 2021; Jenny et al., 2021). At the same time, the paper treats sustainability considerations such as governance arrangements, resource requirements, and stakeholder concerns as integral contextual factors shaping adoption outcomes, consistent with evidence that universities encounter both opportunities and constraints when integrating eSports (Zhong et al., 2024; Cote, 2023). The review culminates in an integrative conceptual framework and propositions intended to support future empirical work and guide sustainable institutional implementation.

Determinant Domains of Esports Adoption in Higher Education

Individual-level perceptions (usefulness)

A central determinant of adoption is whether key stakeholders perceive eSports as useful and value-generating. In TAM, perceived usefulness predicts intention and acceptance because it captures stakeholders' belief that innovation will improve performance or outcomes. In the eSports-in-university context, "usefulness" may be interpreted differently by stakeholder group: students may emphasize belonging and skills development; administrators may emphasize recruitment, retention, or branding; and academics may emphasize innovation in learning design or employability links.

UTAUT extends this logic by highlighting performance expectancy (benefit), social influence (normative pressure from peers/important others), and facilitating conditions (supporting infrastructure and services). This is particularly relevant to eSports because adoption is often socially amplified (peer participation, streaming culture, campus identity), while also dependent on enabling conditions such as IT support and suitable facilities.

Institutional readiness (leadership support)

Even when perceived usefulness is high, adoption can stall if institutions lack readiness. Organizational readiness theory frames readiness as a shared psychological and practical state members must feel committed to the change and confident in their collective capacity to implement it. Leadership support becomes pivotal because it shapes governance clarity, cross-unit coordination (student affairs–IT–facilities–academics), and resource commitments that allow initiatives to persist beyond launch.

Higher education eSports initiatives often require decisions about program location (student affairs vs athletics vs academic unit), staffing, rules of conduct, and partnership models. Evidence from higher-education integration research suggests that both affordances (interactive learning culture, skills development) and constraints (staff knowledge gaps, implementation barriers across systems) appear at multiple ecological levels highlighting why leadership support and institutional coordination are essential adoption conditions.

Technological and Infrastructural Capacity (Equipment)

eSports is resource-sensitive because competitive play and broadcasting rely on stable high-performance computing, specialized peripherals, and reliable networks. In practice, infrastructural capacity includes dedicated spaces (labs/arenas), standardized equipment, network performance (bandwidth/latency), streaming/AV capability, and ongoing maintenance cycles. These requirements operationalize "facilitating conditions" in UTAUT and often become a visible signal of institutional seriousness to students and external partners.

From an implementation standpoint, infrastructure is also a sustainability factor: institutions may manage adoption risk by phasing investments (pilot lab → scaled arena), embedding IT governance, and aligning procurement/refresh plans with program growth. Industry-facing infrastructure discussions commonly emphasize bandwidth and latency as core connectivity considerations for eSports environments, which can inform practical readiness checklists even when the research base is still emerging.

Educational Alignment (co-curricular outcomes)

Educational alignment concerns whether eSports can be justified through student development and learning outcomes, especially when implemented as a co-curricular initiative that supports engagement, belonging, leadership, and employability. Student engagement scholarship positions engagement as a meaningful lever for learning and success, and it provides a credible institutional language for framing eSports as more than entertainment. Empirical synthesis work indicates that eSports participation can be associated with the development of 21st-century skills (e.g., collaboration and communication), offering a plausible outcomes-based rationale for institutional adoption. Beyond co-curricular framing, universities also increasingly connect eSports to academic programming; global inventory work demonstrates the existence and diversity of higher-education eSports academic programs and curricula, signaling a growing pathway for formal educational alignment. At the same time, literature also emphasizes risks and constraints (e.g., academic balance, health/well-being considerations), which can shape cautious institutional adoption unless governance and student support structures are explicit.

Environmental Legitimacy (Community Acceptance)

Environmental legitimacy captures whether eSports is viewed as appropriate and acceptable within the university's broader social environment (parents, community, regulators, peer institutions). Institutional theory explains why organizations become more similar over time through coercive, mimetic, and normative pressure mechanisms that can operate when universities benchmark peer institutions, respond to stakeholder expectations, or align with emerging sector norms. Legitimacy theory further clarifies that acceptance can be pragmatic (self-interest and benefits), moral (normative approval), and cognitive (taken-for-

grantedness). For eSports adoption, pragmatic legitimacy may involve employability pathways or recruitment; moral legitimacy may involve safeguarding, inclusivity, and academic balance; and cognitive legitimacy may involve whether stakeholders can "make sense" of eSports as a legitimate campus activity or sport-like program. The continuing debate about whether eSports fits within traditional definitions of sport underscores why legitimacy remains contested in some contexts and why community acceptance can become a gatekeeper determinant.

Table 1 functions as a synthesis tool that converts diverse eSports and higher-education literature into a clear set of adoption determinants. Instead of treating adoption as a single decision, the table frames adoption as a multi-factor institutional process shaped by perceptions of value, institutional capability, practical resources, educational fit, and external legitimacy. In doing so, it provides a "map" that helps readers understand what typically drives or constrains university-level decisions to formalize eSports initiatives, and it also offers a structured foundation for building variables and hypotheses in future empirical research. Overall, Table 1 provides a compact conceptual structure that is useful in two ways. Practically, it highlights what universities should assess before adopting eSports value, leadership commitment, infrastructure readiness, educational outcomes, and legitimacy risks. Methodologically, it shows how each domain can be operationalized into measurable indicators and linked to established theories, enabling researchers to design surveys, interviews, or mixed-method studies that test which determinants are most influential in different institutional contexts.

Table 1
Determinant domains of eSports adoption in higher education (conceptual synthesis)

Domain	Core meaning in adoption decision	Primary theoretical anchoring
Usefulness (individual perceptions)	Stakeholders believe eSports produces valued outcomes	TAM/UTAUT
Leadership support (institutional readiness)	Institution commits and coordinates implementation	Organizational readiness
Equipment & infrastructure	Operational capacity to run competitive play and programs	UTAUT facilitating conditions + implementation readiness
Co-curricular outcomes (educational alignment)	eSports aligns with student development/learning goals	Student engagement + skills evidence
Community acceptance (environmental legitimacy)	External stakeholders accept eSports as appropriate	Institutional/legitimacy theory

Integrative Conceptual Framework

An integrative explanation of eSports adoption in higher education by modelling adoption as a multi-level decision and implementation process rather than a single approval event. The framework positions adoption as a progression from determinant conditions to two key outcomes: (i) adoption intention and institutional commitment and (ii) implementation

quality and sustainability. In this structure, the determinants on the left represent the primary conditions that shape whether a university is willing to formalize eSports and commit resources, while the boxes on the right reflect the degree to which the initiative is implemented effectively and maintained over time.

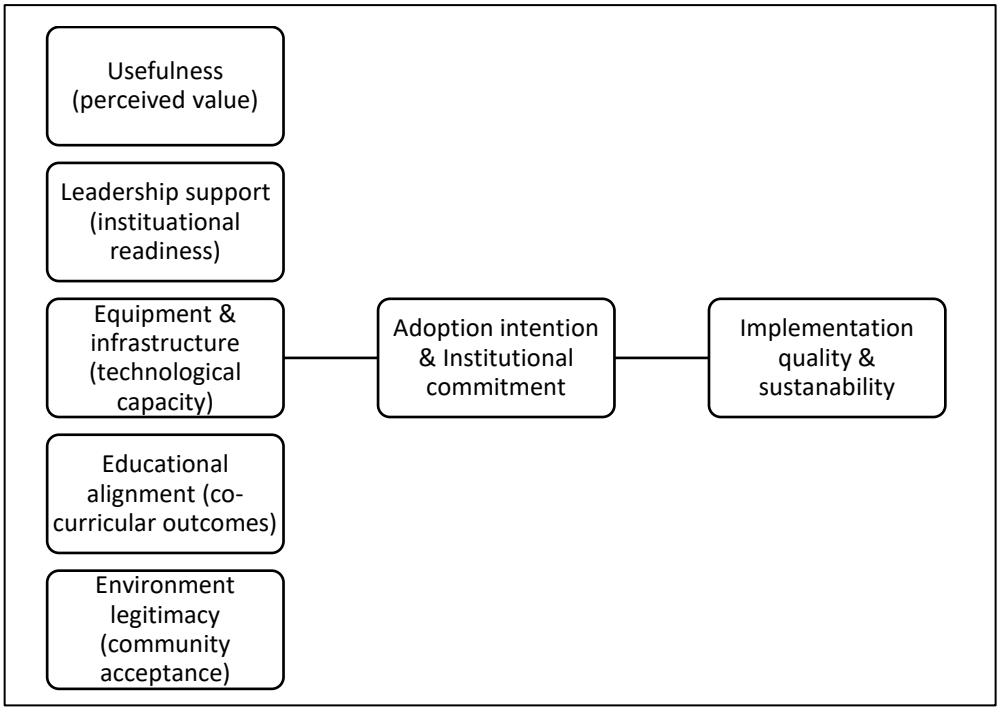

Figure 1. Integrative framework of determinants of eSport adoption in higher education

At the front end of the model, usefulness (perceived value) captures the extent to which stakeholders believe eSports contributes to institutional and student goals. When eSports is seen as useful supporting student engagement, employability skills, recruitment, or learning innovation stakeholders are more likely to endorse the initiative. In the framework, usefulness feeds directly into adoption intention and institutional commitment, indicating that perceived value is a necessary driver for decision-makers to move beyond informal student activities toward formal institutional recognition.

Leadership support (institutional readiness) represents the institution's ability to translate perceived value into action. The model assumes that adoption in universities requires coordinated leadership because eSports programs cut across multiple units (student affairs, IT services, facilities, and sometimes academic departments). Strong leadership support increases institutional commitment by providing governance clarity, budget allocation, staffing, and policy direction. Importantly, Figure 1 also shows leadership support as having a direct pathway to implementation quality and sustainability, reflecting the idea that executive sponsorship and readiness do not only trigger adoption, but also determine whether the program can be managed, evaluated, and sustained after launch.

Similarly, equipment and infrastructure (technological capacity) acts as both an adoption condition and an implementation enabler. The framework signals that technological and infrastructural capacity such as dedicated spaces, standardized equipment, and reliable connectivity supports institutional commitment because it reduces feasibility concerns and strengthens stakeholders' confidence in operational success. At the same time, infrastructure

has a direct linkage to implementation quality and sustainability because weak facilities or unreliable systems can undermine participation quality, limit competitive performance, and reduce long-term program credibility even when initial commitment exists.

The framework also highlights educational alignment (co-curricular outcomes) as a determinant that strengthens adoption by connecting eSports to the university's educational mission. When eSports is framed as supporting co-curricular learning outcomes belonging, leadership, teamwork, communication, and graduate attributes adoption becomes easier to justify within higher education's accountability and student development agenda. In Figure 1, educational alignment contributes primarily to adoption intention and institutional commitment, implying that alignment functions as a legitimizing rationale that helps decision-makers perceive eSports as institutionally appropriate rather than purely recreational.

Finally, environmental legitimacy (community acceptance) reflects the socio-cultural acceptance of eSports among stakeholders beyond the immediate participant group, such as parents, faculty, local communities, and external partners. These determinant influences adoption because universities often seek alignment with stakeholder expectations and reputational fit. When community acceptance is high, decision-makers face fewer normative barriers and are more likely to commit to formal adoption. In contrast, if legitimacy is contested concerns about academic distraction, health impacts, or cultural stigma adoption may be delayed, restricted to informal clubs, or framed narrowly to avoid controversy.

Overall, Figure 1 implies two key insights: first, perceived usefulness and educational alignment build the justification for adoption, while second, leadership support and infrastructure are the strongest drivers of sustainable implementation. In practical terms, universities can generate interest and rationale through value propositions and student development outcomes, but long-term success depends on institutional readiness and operational capacity. For research, the model provides a basis for testable propositions, including (i) that usefulness predicts institutional commitment, (ii) that leadership support and infrastructure predict implementation quality, and (iii) that educational alignment and community acceptance strengthen stakeholder endorsement and reduce resistance across the adoption process.

Integrative Framework of eSports Adoption in Higher Education

Building on the determinant domains summarized in Table 1, this section explains how the determinants interact as a coherent adoption pathway, culminating in the integrative model shown in Figure 1. The core assumption is that eSports adoption in higher education is not a single "approval" decision; it is a staged institutional process in which perceived value must be converted into formal commitment, and commitment must be translated into high-quality implementation and long-term sustainability. This logic aligns with established adoption and changes perspectives that distinguish between (a) *intention/decision to adopt* and (b) *implementation capacity and routinization* (Davis, 1989; Venkatesh et al., 2003; Weiner, 2009). In Figure 1, the left-side determinants function as antecedent conditions shaping adoption intention and institutional commitment (the decision to formalize eSports through governance, funding, and program design). The model then distinguishes a second outcome implementation quality and sustainability which reflects whether the institution can deliver reliable operations, safeguard student participation, and maintain strategic legitimacy over

time. This separation is particularly relevant in higher education settings where an initiative may be approved in principle but struggle during execution due to weak readiness, insufficient resources, or contested legitimacy (Weiner, 2009).

Value-to-Commitment Pathway: Usefulness and Educational Alignment

The first pathway in the model is value-based: universities are more likely to commit to adoption when eSports is perceived as useful and educationally aligned. In technology adoption research, perceived usefulness (or performance expectancy) is a foundational driver of acceptance because it captures whether stakeholders expect meaningful benefits from the innovation (Davis, 1989; Venkatesh et al., 2003). In the higher education context, "usefulness" is multi-stakeholder: students may value belonging and achievement experiences, while administrators may prioritize recruitment, retention, institutional visibility, and student development outcomes. Without a credible value proposition, eSports remains vulnerable to being categorized as entertainment rather than an institutional initiative worthy of resources and policy support.

Educational alignment strengthens this perceived value by providing a mission-consistent justification that resonates with academic culture and student development priorities. Student engagement scholarship emphasizes that institutions invest in initiatives when they can link participation to meaningful learning, involvement, and developmental benefits (Kuh, 2009; Kahu, 2013). In practice, educational alignment for eSports can be articulated through co-curricular outcomes (leadership, teamwork, communication, self-regulation) and, where relevant, through academic linkages (event management, digital media, computing, entrepreneurship). When eSports is framed as a structured developmental environment rather than unbounded gaming, stakeholder perceptions of usefulness become more defensible, and adoption becomes easier to justify within higher education's educational mission (Kahu, 2013).

Capability-to-Execution Pathway: Leadership Support and Infrastructure

The second pathway in Figure 1 is capability-based: leadership support and infrastructure do not merely support adoption; they are pivotal for implementation quality and sustainability. Organizational readiness theory emphasizes that successful implementation depends on shared commitment and collective efficacy whether members believe the organization can execute the change and sustain it amid competing priorities (Weiner, 2009). In universities, leadership support operationalizes readiness by enabling governance clarity (where the program "lives"), policy design (eligibility, conduct, safeguarding), cross-unit coordination (student affairs–IT–facilities–academics), and resource continuity (staffing and funding). Where leadership support is weak, adoption tends to remain fragmented (club-only structures without institutional accountability), increasing the risk of inconsistent operations and discontinuation.

Infrastructure is a second, highly visible indicator of execution capacity. Because eSports is technologically intensive, institutions must ensure adequate facilitating conditions reliable devices, peripherals, spaces, network stability, and support services before scaling participation and competition commitments (Venkatesh et al., 2003). The framework therefore model's leadership support and infrastructure as having direct links to implementation quality and sustainability. This reflects a practical reality: institutions may

endorse eSports conceptually, but weak infrastructure or limited IT support will reduce program reliability, limit the ability to host events, and undermine stakeholder confidence. In short, perceived value can initiate adoption interest, but readiness and infrastructure determine whether eSports becomes a stable institutional program (Weiner, 2009).

Legitimacy-to-Endurance Pathway: Community Acceptance and Institutionalization

The third pathway addresses why some eSports initiatives face resistance even when value and capability are present: adoption also depends on environmental legitimacy whether eSports is seen as appropriate within the institution's broader social environment. Institutional theory argues that organizations adopt practices not only for efficiency but also to gain legitimacy within their field, responding to normative expectations, peer comparisons, and stakeholder pressures (DiMaggio & Powell, 1983). In addition, legitimacy theory clarifies that acceptance can be pragmatic (stakeholders see benefits), moral (stakeholders approve on normative grounds), and cognitive (the practice becomes understandable and taken-for-granted) (Suchman, 1995). Applied to eSports, community acceptance influences whether stakeholders perceive eSports as aligned with institutional values and student well-being, and whether concerns about academic distraction, excessive gaming, or reputational fit are adequately addressed through governance and support structures.

In Figure 1, community acceptance contributes to institutional commitment because legitimacy affects decision-maker willingness to allocate resources and formalize policies. It also indirectly supports sustainability by shaping the long-term "license to operate" for eSports particularly in contexts where universities depend on community trust, parental approval, and reputational considerations. Thus, even well-resourced programs can be fragile if legitimacy is not actively managed through transparency, codes of conduct, academic balance safeguards, and explicit developmental outcomes (Suchman, 1995).

Propositions and Empirical Operationalization

A key contribution of the framework is that it can be operationalized into testable propositions and measurable constructs for future empirical research. At minimum, the model implies that usefulness and educational alignment predict adoption commitment, while leadership support and infrastructure predict implementation quality, and community acceptance strengthens commitment and supports sustainability through legitimacy. The framework can be empirically examined using multi-respondent designs (students, administrators, faculty, IT/facilities staff), since determinants are stakeholder-dependent and adoption decisions are typically collective rather than individual (Weiner, 2009). Table 2 provides example operational definitions and indicators that can guide instrument development for survey or mixed-method studies. These indicators should be adapted to institutional context (public/private, residential/commuter, resource level) and program type (club-based, varsity-based, or curricular-integrated).

Table 2
Proposed operational definitions and example indicators for the framework constructs (illustrative)

Construct	Operational definition	Sample indicators	Key supporting lens
Usefulness	Belief that eSports contributes to valued outcomes	"eSports improves student engagement"; "eSports supports employability skills"; "eSports strengthens institutional profile"	TAM/UTAUT (Davis, 1989; Venkatesh et al., 2003)
Leadership support	Extent of executive sponsorship and coordination for eSports implementation	Dedicated budget; formal governance unit; staffing allocation; clear policies and role assignments	Organizational readiness (Weiner, 2009)
Infrastructure capacity	Availability and adequacy of technical and physical resources	Dedicated space; standardized equipment; network reliability; IT support responsiveness	Facilitating conditions (Venkatesh et al., 2003)
Educational alignment	Clarity and credibility of co-curricular/learning outcomes	Defined learning outcomes; leadership development activities; academic balance safeguards; employability pathways	Student engagement (Kuh, 2009; Kahu, 2013)
Community acceptance	Perceived appropriateness of eSports among key stakeholders	Parent/community support; faculty acceptance; reputational fit; perceived safeguards for well-being and academics	Institutional/legitimacy (DiMaggio & Powell, 1983; Suchman, 1995)
Adoption commitment (outcome)	Formal decision to institutionalize eSports	Official program status; sustained funding; institutional communications; participation targets	Adoption/implementation distinction
Implementation quality & sustainability (outcome)	Reliability and continuity of program delivery over time	Stable participation; competition continuity; incident management; evaluation/reporting routines	Readiness and enabling conditions

Discussion

This conceptual review argues that eSports adoption in higher education should be understood as a two-stage institutional process: (i) forming adoption intention and institutional commitment, and (ii) achieving implementation quality and sustainability (Figure 1). This distinction matters because universities may endorse eSports in principle, but struggle to operationalize programs when institutional readiness, governance clarity, or infrastructure are insufficient an implementation pattern consistent with organizational change research, where readiness influences whether adoption efforts persist and translate into routine practice (Weiner, 2009). The framework further suggests that adoption decisions are shaped by both rational value assessments and legitimacy dynamics. On the "value" side, perceived

usefulness/performance expectancy remains foundational to stakeholder support: stakeholders are more likely to endorse eSports when they believe it contributes to valued outcomes such as engagement, retention, employability, and campus experience (Davis, 1989; Venkatesh et al., 2003). On the "legitimacy" side, adoption is also influenced by whether eSports is considered appropriate within the university's normative environment. Institutional theory explains that organizations often converge toward similar practices through coercive, mimetic, and normative pressures, while legitimacy theory clarifies that continued support depends on pragmatic, moral, and cognitive legitimacy (DiMaggio & Powell, 1983; Suchman, 1995).

In the higher education context, educational alignment plays a bridging role between value and legitimacy. When eSports is articulated through student engagement and developmental outcomes, it becomes easier for institutions to justify adoption using a language that resonates with academic culture and student success priorities (Kuh, 2009; Kahu, 2013). This is particularly relevant given evidence that eSports participation can support the development of multiple 21st-century skills, strengthening the credibility of co-curricular outcome claims that institutions often use in adoption narratives (Zhong, 2022).

Finally, the framework highlights a pragmatic insight for campus implementation: leadership support and infrastructure behave as "hard constraints." Even with strong student demand and a persuasive value proposition, implementation quality is likely to be weak if facilitating conditions (equipment, space, connectivity, IT support) are inadequate (Venkatesh et al., 2003). This aligns with collegiate eSports facility research suggesting that formal spaces and infrastructure play an important role in institutionalization and perceived program legitimacy, while also revealing tensions between institutional goals and gaming norms that must be managed through governance and community practices.

Practical Implications for Higher Education Institutions

First, universities should treat eSports adoption as a governance and readiness project, not only a student activity. Leadership support should be expressed through clear ownership (e.g., student affairs vs academic unit vs hybrid), defined roles, budget lines, conduct policies, and safeguarding protocols. Readiness matters because it increases collective confidence in implementation and helps programs persist through predictable obstacles such as staffing turnover, equipment refresh cycles, and fluctuating participation (Weiner, 2009). Second, institutions should adopt a phased infrastructure strategy aligned with program maturity. Because eSports is operationally dependent on facilitating conditions, universities can reduce risk by piloting a smaller lab model before scaling to an arena, while embedding IT governance for network reliability, standardization, and maintenance. This strategy aligns with UTAUT's emphasis on facilitating conditions as determinants of sustained use and performance (Venkatesh et al., 2003). It also reflects sector guidance that emphasizes planning for governance and operational maturity as programs grow.

Third, universities should strengthen adoption legitimacy by making educational alignment explicit. This includes defining co-curricular learning outcomes (leadership, teamwork, communication, self-regulation), linking programming to employability pathways, and using engagement language that is familiar in higher education quality and student success discourse (Kuh, 2009; Kahu, 2013). Where institutions pursue academic integration, existing

work on esports curricula and global higher-education esports programming can guide pathway design and curriculum coherence. Fourth, universities should actively manage community acceptance rather than assuming it will follow adoption. Legitimacy can be strengthened through transparent policy frameworks, academic balance expectations, codes of conduct, inclusion and well-being support, and clear communication of benefits and safeguards (Suchman, 1995). Risk-management oriented guidance for higher education similarly emphasizes that varsity-level formalization introduces institutional responsibilities that should be addressed through governance and policy structures.

Implications for Research and Measurement

For researchers, the framework implies that adoption should be tested using multi-level designs. Individual acceptance constructs (usefulness/performance expectancy) can be measured across different stakeholder groups, while organizational readiness (leadership support, governance clarity, resourcing) and facilitating conditions (infrastructure) can be modelled as institutional-level predictors of implementation quality (Davis, 1989; Venkatesh et al., 2003; Weiner, 2009). Legitimacy can be operationalized using pragmatic/moral/cognitive legitimacy dimensions, supporting more precise analysis of "community acceptance" than single-item attitude measures (Suchman, 1995). The model also supports clearer outcome measurement by separating institutional commitment (formalization, funding, staffing, policy) from implementation quality and sustainability (operational reliability, continuity, participation stability, evaluation routines). This distinction aligns with practical patterns reported in higher-education eSports studies and reviews, which point to both benefits and constraints in institutional integration and program execution.

Limitations and Future Research

As a conceptual review, the framework does not quantify effect sizes or determine which determinant dominates across all contexts. Determinant strength likely varies by institutional type (public/private), resourcing, and program model (club-based, varsity-based, curricular). Future studies should test the model using cross-institutional datasets and stakeholder-stratified samples and should examine whether readiness mediates the usefulness adoption relationship as implied by organizational readiness theory (Weiner, 2009). Further research should also examine how legitimacy strategies (policy, safeguarding, academic balance) influence sustainability over time, consistent with legitimacy theory's emphasis on maintaining audience support.

Conclusion

This paper synthesizes determinants of eSports adoption in higher education into five domains usefulness, leadership support, infrastructure, educational alignment, and community acceptance and integrates them into a framework that distinguishes institutional commitment from implementation sustainability (Figure 1). The model suggests that universities are more likely to adopt eSports when stakeholders perceive clear value and educational fit, but long-term success depends heavily on readiness, governance, and facilitating conditions. By linking adoption decisions to established theory (TAM/UTAUT, organizational readiness, and institutional/legitimacy perspectives), the framework provides a structured basis for both institutional planning and future empirical testing.

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