

THE FUTURE OF THE CORD MODEL: RECOMMENDATIONS FOR ITS DEVELOPMENT IN POLISH HIGHER EDUCATION INSTITUTIONS

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Purpose: The paper addresses the future of the CORD model under the combined demographic, financial and technological pressures shaping contemporary higher education, including the rapid diffusion of generative artificial intelligence. Its dual aim is to reinterpret the CORD model (Contextualisation–Organisation–Researching–Developing/Delivery) in light of current Polish debates on the university transformation and to test its usefulness as a framework for explaining the educational decisions of candidates and the drop-out phenomenon.

Design/methodology/approach: The study combines a critical review of the literature on the CORD model with a quantitative, cross-sectional, exploratory survey ($n = 247$) conducted among first-year bachelor students in Poland. Items in the questionnaire were mapped onto the four CORD pillars in order to relate selected features of the educational offer and the organisation of studies to a self-reported intention to drop out.

Findings: Results show a clear dominance of pragmatic criteria — costs, flexibility of the schedule, employment prospects — over the symbolic prestige of the institution. The findings indicate that a mismatch between the organisation of studies and students' life profiles (combining studies with paid work) is associated with a higher declared propensity to drop out, regardless of the perceived prestige of the university.

Research limitations/implications: The sample was purposive rather than random and the design was cross-sectional, which precludes strong causal inferences. Findings should be tested on larger and longitudinal samples and linked with administrative data on study trajectories.

Practical implications: The study formulates recommendations for university management, including redesigning class schedules toward more flexible and condensed formats, expanding hybrid delivery, building early-warning systems based on LMS analytics and involving students in the co-design of programmes.

Social implications: By foregrounding the perspective of first-year students, the paper contributes to a more inclusive view of higher education quality and to a public debate on the social mission of universities under demographic decline and digital transformation.

Originality/value: The paper proposes an extension of the original CORD model toward CORD 2.0 / CORD+ — by explicitly integrating digital, resilience and sustainability dimensions — and tests it empirically on the Polish higher education context.

Keywords: CORD model, higher education management, drop-out, student experience, digital transformation.

Category of the paper: Research paper; conceptual paper.

1. Introduction

Polish higher education has entered a period in which several crises overlap: a demographic one, a financial one, a crisis of public trust and a technological one related to the rapid diffusion of generative artificial intelligence. A reorientation of public expenditure toward defence is currently visible, partly at the expense of the already modest spending on research, development and higher education. The literature stresses that the system has “entered a drift”, which means that, instead of coherent development strategies, the dominant pattern is one of reactive responses to financial and regulatory stimuli. At the same time, OPI PIB reports show persistently high drop-out rates and growing diversification of candidates’ motivations¹.

This diagnosis is not only a description of external pressures but also a starting point for identifying a theoretical and practical gap in the management of Polish higher education institutions. Existing studies usually analyse demographic decline, digital transformation, university stratification, student retention or higher education marketing as separate research areas. Much less attention has been paid to the question of how these pressures interact at the level of institutional strategy and how they are translated into the everyday student experience, especially in the first year of studies. This is particularly important because first-year students confront the promotional promises of universities with the actual organisation of teaching, timetable flexibility, support mechanisms and the perceived labour-market relevance of programmes.

Against this background, F. Maringe’s CORD model — which combines marketing, strategic planning and curriculum development — offers a promising framework for analysing the strategies of Polish universities. The paper has two objectives: first, to reinterpret the CORD model in light of Polish debates on the transformation of the university (Sulkowski, Kwiek, Antonowicz, Leja); second, to propose and preliminarily test the CORD approach as a tool for explaining the educational decisions of candidates and the drop-out phenomenon, drawing on the results of a survey conducted among first-year students².

In its original formulation, the CORD model was proposed as a tool for organising the marketing (and programme) strategies of universities around four interrelated areas: Contextualisation (analysis of demographic and social conditions), Organisation (structures, processes and organisational culture), Researching (systematic study of the needs and experiences of students and other stakeholders) and Developing (designing and improving the curriculum as the “core product” of the university). In its first applications the model focused mainly on responding to the marketing crisis in higher education and on the need to anchor communication in the actual educational offer — that is, on a shift from promotional activities toward a coherent, student-oriented strategy. Subsequent works gradually reinterpreted CORD as a broader instrument for managing change and building institutional resilience, opening space for further extensions with digital, analytical and sustainability-related components.

The present paper takes these original assumptions as its point of departure, while arguing that contemporary challenges justify the addition of further dimensions, in particular those referring to artificial intelligence, learning analytics, resilience and sustainability³.

The novelty of this paper lies in combining three perspectives that are usually discussed separately: the CORD model as a framework for university marketing and programme development, Polish debates on the strategic transformation of higher education, and empirical data on the motivations and drop-out intentions of first-year students. The article therefore does not treat CORD only as a descriptive model of university marketing, but as an analytical tool for diagnosing the mismatch between what universities communicate and what students actually need in order to continue their studies. In this sense, the study contributes to the literature by proposing a context-sensitive extension of CORD toward a more operational model of student retention, digital adaptation and organisational flexibility in Polish higher education institutions.

The rationale for taking up the topic rests on three research gaps still visible in the analysis of Polish higher education. First, there is a lack of coherent approaches linking the strategic decisions of universities with the micro-level of the student experience (timetable, forms of teaching, organisation of support, hybridity) in a way that allows for the formulation of testable hypotheses concerning the drop-out phenomenon⁴. Second, in many studies digitalisation and AI are treated as a technological or ethical-regulatory issue rather than as a factor permeating all dimensions of university management in the CORD logic (context, organisation, study of needs, design and delivery of the programme). Third, there is a shortage of empirical studies focused on the first year of studies — the period that is critical from the perspective of retention — which combine declared motivations for choosing studies with an assessment of the organisation of teaching and a self-reported propensity to drop out.

The present paper addresses these gaps by combining a theoretical reinterpretation of the CORD model with exploratory empirical evidence collected among first-year students. Its contribution is twofold: theoretically, it shows how CORD may be extended to include digitalisation, resilience, sustainability and retention-oriented management; empirically, it demonstrates which elements of the educational offer and study organisation are most strongly perceived by students as relevant to their educational decisions. The context outlined in this way sets the direction for the further parts of the paper — from the reconstruction of the CORD model and its embedding in the literature, through the analysis of empirical data, to proposals for its further development.

Consequently, the following research questions were formulated:

1. To what extent does the CORD model allow an adequate description of the contemporary conditions of higher education institutions in Poland, in particular under demographic, financial and technological pressure?

2. Which elements of CORD (context, organisation, study of needs, development/delivery of the programme) are most strongly linked to the factors that first-year students declare as driving their choice of studies?
3. Whether — and how — a discrepancy between students' declared priorities and the organisation and form of teaching may increase the propensity to drop out (the drop-out intention)?
4. Which modifications and extensions should be incorporated into the CORD model so that it better corresponds to the reality of Polish universities?

A set of working hypotheses was also adopted to structure the analysis and to indicate directions for further research (including panel research or studies using administrative data). In particular, it is assumed that:

- H1: A mismatch between the organisation of studies (schedule and class formats) and students' life profile (e.g. combining studies with paid work) increases the risk of dropping out.
- H2: The greater the alignment between students' declared priorities (costs, flexibility, employment prospects) and the actual offer and organisational practice of the university, the lower the declared propensity to drop out.
- H3: Universities with weaker research resources build their competitive advantage through investment in the Development/Delivery element (flexibility, support, personalisation), which may reduce drop-out in groups particularly sensitive to organisational factors.

Section 1 presents the CORD model and its interpretations against the background of debates on the strategy and transformation of Polish universities, indicates the perspectives of Polish researchers (Sułkowski, Kwiek, Antonowicz) and outlines the drop-out problem. Section 2 presents the methodology of the authors' own research (a survey of first-year students, $n = 247$). Section 3 discusses the results and interprets them within the four-pillar CORD framework, highlighting potential mechanisms generating the risk of drop-out. Section 4 organises the hypotheses and indicates possible causal relationships requiring further verification on longitudinal or administrative data. Section 5 presents the limitations of the research. The paper closes with Section 6, in which practical implications and directions for the development of the model are formulated (including its "digitalisation" and reinforcement with continuous evaluation mechanisms) as well as recommendations for university management practice in conditions of growing uncertainty.

2. The CORD model, Polish perspectives on university strategy and the drop-out phenomenon, literature review

2.1. Maringe: CORD — from marketing to strategy

The CORD model (Contextualisation–Organisation–Researching–Developing/Delivery) emerged as a response to the marketing crisis of higher education institutions, which consisted in the mechanical transfer of commercial tools into universities without reflection on their academic mission. Maringe argued that university marketing is “inappropriate, poorly coordinated and lacking formal operational guidelines”, and that fixing it requires anchoring marketing in study programmes and in a dialogue with stakeholders⁵. CORD proposes a distinction between four areas: the contextualisation of strategy, inclusive organisation and coordination, the systematic study of the student interface and the development of the curriculum as the “core product” of the university⁶. In the original version of CORD the key assumption was to reformulate the question from “how to promote the university effectively?” to “how to design and organise the offer so that it responds to real conditions and stakeholder needs?”. The response to the critique of traditional marketing was therefore to redirect attention from image-related messages to decisions about programme structures, forms of teaching, ways of researching student satisfaction and mechanisms of internal coordination. The model provided universities with a set of reflective questions on whether the offer is coherent with the demographic and labour-market context, whether the organisation supports retention, whether processes for studying needs are systematic, and whether programme development is linked with feedback from students⁷. In post-pandemic studies the model is read as a framework for building resilience and adaptive capacity, but requires complementing with a digital component and continuous evaluation mechanisms⁸.

Table 1.

Operationalisation of the CORD model — key questions and research variables⁹

CORD element	Key questions for the university	Relevant research areas / data	Sample variables in the survey / sources
Contextualisation (Context)	What are the real conditions in which the university operates (demography, labour market, generational expectations, technologies)?	Demographic analyses, labour market reports, system-level data on recruitment and drop-out, studies on candidates' motivations. ¹⁰	Importance of employment prospects after graduation in choosing a field; importance of location, costs, opportunities to work during studies; OPI data on the structure of drop-out by type of university, field and mode.
Organisation & Coordination (Organisation and coordination)	Do the organisational structure, culture and processes support a coherent, student-oriented strategy and retention?	Management structure, scope of responsibilities of dean's offices, quality units, careers offices; practices of timetable design; student support policies. ¹¹	Assessment of the timetable (ability to combine studies with work); perceived availability of support (tutor, year supervisor); differences between public and non-public universities in the organisation of studies; presence of anti-drop-out strategies / support procedures. ¹²

Cont. table 1.

Researching (Studying the student and market interface)	How does the university get to know the needs of candidates, students, employers and other stakeholders?	Satisfaction surveys, studies of choice motivations, graduate-tracking, analytics of e-learning systems, consultations with the socio-economic environment.	Survey on the factors of choice of studies; students' declarations on the importance of particular aspects of the offer; possible data on attendance.
Developing/ Delivery (Programme development and delivery)	Do the programmes and the form of teaching respond to the identified needs and life conditions of students?	Programme design (flexibility, modularity), involvement of practitioners, presence of online / hybrid components, teaching methods, AI-based tools supporting individual learning paths. ¹³	Importance of online and hybrid classes; assessment of the flexibility of the form of studies (ability to study and work); declared propensity to drop out; implementation of AI tools (chatbots, course recommendations) and their perception by students (in subsequent stages of research).

Source: own elaboration based on F. Maringe, P. Gibbs, *Marketing Higher Education: Theory and Practice*, Open University Press, 2008; OPI PIB reports (<https://irsw.pl/raport-opi-pib-zjawisko-drop-outu-na-polskich-uczelnich/>).

In the context of the present research, it becomes crucial to indicate how the individual components of CORD correspond to the real challenges faced by Polish universities. Table 1 maps these relationships, linking the theoretical pillars of the model with concrete research areas and variables that were used to construct the questionnaire and to interpret the results. This approach is consistent with tendencies visible in international research on the choice of university and study programme, in which students' decision models increasingly combine the analysis of contextual, organisational and experiential factors within a single, integrated analytical framework, rather than treating them as separate threads¹⁴.

2.2. Sułkowski: the “digital university” and CORD

The author shows that Polish universities are moving from the traditional model toward a “digital university” understood as a platform-based, data-driven organisation, with a growing role of remote and hybrid forms of teaching. This transformation has a technological dimension (LMS platforms, information systems), but above all a cultural one — it requires changes in the way the university is managed, in communication and in the role of the student. From the perspective of CORD this means the necessity of introducing a “T factor” (technological) into all four pillars: the context covers the digital environment and AI; the organisation encompasses structures responsible for digitalisation and analytics; researching includes learning analytics; and development covers programme design and delivery using digital and AI-based solutions¹⁵.

Sułkowski also underlines the tension between the “utopia of freedom” and the “dystopia of power” in managing the digital university — technologies can serve both personalisation and control. In the perspective of drop-out and individual development paths, CORD may become a tool for restoring balance: technological personalisation makes sense only when it is anchored in the mission and in dialogue, rather than in a pure efficiency logic¹⁶.

2.3. Kwiek: stratification and “the vanishing scientists”

Kwiek analyses Polish higher education in the perspective of a long-term transformation: the concentration of resources, the polarisation of universities and changes in the professional status of academic staff. The notion of “the vanishing scientists” shows that the base scenario is the shrinking of the academic population and the growing concentration of research in a narrow elite of universities. In CORD logic, this implies a dramatic differentiation of the Researching component: some universities are evolving into high-quality research-and-teaching centres, while others are confined to the role of providers of mass, low-cost education¹⁷.

Kwiek points out that university strategies are largely determined by funding algorithms and by the ranking-driven logic of the system. This reinforces the risk that marketing and programme decisions will be shaped more by indicators than by the recognised needs of students and the wider environment. From the perspective of drop-out research, the hypothesis arises that universities with weaker research resources will seek competitive advantage in the Delivery area (flexibility, personalisation, student orientation), while research-intensive universities may base their attractiveness mainly on prestige and resources¹⁸.

2.4. Antonowicz: the “drift” and the weakness of strategy

Antonowicz diagnoses Polish higher education as a system that has “entered a drift”, lacking a clearly defined vision and development policy, where decisions are often reactive and ad-hoc. From the perspective of CORD, this implies the underdevelopment of the Context and Research pillars: universities observe demographic and market changes but fail to translate them into a coherent reorientation of programmes and teaching models¹⁹.

Antonowicz also shows that the strategic documents of Polish universities are dominated by the language of modernisation, innovation and internationalisation, but lack solid mechanisms of implementation and monitoring. In our analysis this is a direct gap: CORD indicates that feedback loops between context, organisation and curriculum are crucial — Polish universities, however, often stop at the level of declarations²⁰.

2.5. Leja: university management and organisational culture

Leja emphasises the importance of organisational culture and the specificity of the university as a knowledge organisation, in which academic, bureaucratic and managerial logics coexist. Drawing attention to the limits of mechanical transfers of business solutions, he argues that effective university management requires the building of trust and participation, including the engagement of staff and students in decision-making processes²¹.

From the perspective of the research questions adopted in this paper, it is important to note that international literature converges on a similar set of themes: the growing significance of economic and organisational factors in students’ educational decisions, a shift from prestige

toward the “service experience”, and the need for the systematic study of the student–university interface using quantitative data. The CORD model can therefore be treated as a bridge between these strands, enabling both a synthesis of the international literature and the embedding of Polish discussions on system drift, university stratification and digitalisation within a broader comparative context. The literature review constructed in this way provides a direct basis for formulating research questions on the significance of the individual CORD pillars in the decisions of first-year students and for designing the empirical study presented in the next section.

3. Methods

Starting from the theoretical framework and research questions outlined above, an empirical study was designed, the key methodological assumptions of which are presented below. The literature review leads to the conclusion that Polish higher education is in a phase of “strategic drift” (Antonowicz, 2015), in which traditional ways of competing — based on prestige and image-oriented marketing — are losing their effectiveness. The analysis of F. Maringe’s work on the CORD model, set against the diagnoses of Polish researchers (Kwiek, Sułkowski, Leja), points to a fundamental shift of emphasis: from promotion (what the university says about itself) to delivery (how the university actually carries out the teaching process and provides support). The literature clearly suggests that, in the era of digital transformation and demographic pressure, the key strategic resource is not so much a static programme offer as organisational flexibility and the ability to personalise the student’s pathway.

Despite the rich literature on the macro-level conditions of the system (university stratification, funding), a significant research gap has been identified at the level of micro-analyses. There is a lack of studies that directly link the strategic pillars of the CORD model (Context, Organisation, Researching, Development) with the subjective assessment of first-year students — the group most exposed to the risk of drop-out. Existing research rarely verifies to what extent the “student-centric” strategies declared by universities correspond to the actual experience of the educational “customer” when confronted with the timetable, infrastructure or availability of teaching staff.

In light of the above, the main aim of the study is the empirical verification of the usefulness of the CORD model as a tool for explaining candidates’ educational decisions and the identification of organisational factors that increase the risk of dropping out.

The study seeks to answer the following research questions:

1. Which elements of the CORD model (in particular the Delivery and Organisation areas) are crucial for contemporary students when choosing a university, and do they dominate over traditional prestige?
2. Is there an observable convergence between the organisational “rigidity” of the university (e.g. lack of flexibility in the schedule, inadequate forms of teaching) and the intention to drop out declared by students?
3. To what extent does the “digital gap” and the way in which modern technologies are used in teaching differentiate the perceived attractiveness of the educational offer?

The methodology of the authors’ own research was designed so that the operationalisation of the variables of the CORD model (presented in Table 1) makes it possible to verify the hypotheses formulated earlier.

The study was quantitative, cross-sectional and exploratory in nature, embedded in the perspective of management and quality sciences, and used the CORD model as an interpretative framework. The sampling targeted the population of first-year bachelor students at Polish universities. The research sample consisted of 247 students, selected purposively (priority was given to social, economic and technical fields, where drop-out rates are relatively high)²².

The research technique used was a diagnostic survey in the form of an online questionnaire (electronic form) distributed via student self-government bodies and the universities’ communication platforms. The instrument was an original questionnaire consisting of four blocks: a record sheet, factors of choice of university and field of studies (Likert scale 1-5, from “1 — completely unimportant” to “5 — crucial”), assessment of the organisation and form of studies (including the flexibility of the schedule) and propensity to drop out.

Items concerning the factors of choice of studies and the assessment of the organisation of studies were designed by mapping them onto the elements of CORD: Context — e.g. employment prospects; Organisation — the timetable; Researching — the perception of dialogue and surveys; Developing/Delivery — the form of classes.

The study took into account dependent, independent and control variables. The dependent variable was the propensity to drop out of studies. The independent variables were the individual factors (and their significance) considered when choosing studies: costs, prestige, infrastructure, employment prospects, location, timetable, presence of online classes, student events, others’ opinions, family expectations; the assessment of the flexibility of the organisation of studies, including the ability to combine studies with work and the availability of hybrid and/or online classes. Control variables were also included: type of university (public/non-public), mode of studies (full-time/part-time), field of education and gender. Respondents answered questions concerning the factors of the choice of university and field, as well as the importance of various aspects of the offer and of the organisation of studies. The instrument included, among others, the assessment of the importance of: the prestige of the

university, costs, infrastructure, location, employment prospects, the timetable, the presence of online classes, student events, others' opinions and family expectations.

In order to move beyond purely descriptive distributions, future stages of the research should include regression-based modelling of drop-out intention. If the dependent variable is measured dichotomously, for example as the declared consideration of discontinuing studies, binary logistic regression would be the most appropriate approach. If the variable is measured on an ordinal Likert scale, ordinal logistic regression could be applied. Such an analysis would make it possible to identify which variables — timetable flexibility, the possibility of combining studies with paid work, perceived costs, employment prospects, satisfaction with the chosen programme or perceived institutional prestige — most strongly predict the declared intention to drop out. In the present exploratory stage, the results are interpreted as associations and directional hypotheses rather than as confirmed causal effects.

The paper assumes that the answers reflect the declared importance of the individual factors, and not necessarily their actual influence on future decisions to continue or drop out of studies; however, the comparison with OPI data makes it possible to formulate hypotheses on potential causal relationships²³.

4. Results — factors of the choice of studies

The selection of the analysed factors of the choice of studies was not random; it followed from a synthesis of the classical literature on the subject²⁴ and the specificity of the contemporary Polish market. International research traditionally distinguishes the so-called 7P model of educational marketing, including, among others, the programme (Product), the price and costs (Price) and accessibility (Place)²⁵. In the present study, this set was complemented by variables that are crucial for the generation of “digital pragmatists” identified in more recent Polish reports (including OPI PIB). Particular attention was paid to the gap between “soft” factors (prestige, atmosphere, opinions of friends) and “hard” ones (earnings prospects, flexibility of the timetable), which makes it possible to verify the hypothesis of the growing role of economic rationalisation in educational decisions²⁶.

The study was conducted among a group of $n = 247$ first-year bachelor students. The sample was purposive; this choice was dictated by the need to reach those at the stage of the “entry shock” into the academic environment — this group is the most exposed to the risk of drop-out and is constantly confronting its expectations about studies with the organisational reality of the university.

The analysis of the distribution of answers leads to the conclusions presented below.

Table 2.*Synthetic overview of survey results*

Factor / research variable	Element in the CORD model	Low importance (1-2)	Neutral / hard to say (3)	High importance (4-5)	Dominant tendency in the sample
Employment prospects after studies	Context	< 10%*	Low share	Dominant (> 60%)	Strong pragmatism
Ability to combine studies with work (timetable)	Organisation / Delivery	< 10%*	Low share	Dominant (> 60%)	Key priority
Location of the university	Context	Moderate share	Moderate share	High share	High importance
Costs of studying (tuition, fees)	Context	≈ 20%	≈ 35%	≈ 45%	Polarising factor
Range of fields offered	Developing	Low share	Low share	High share	High importance
Presence of online / hybrid classes	Delivery	Significant share	Differentiated	Significant share	Strong differentiation (polarisation)
Social factors (friends, events)	Context	Significant share	Differentiated	Moderate share	Moderate importance
Brand / prestige of the university	Context	Majority (> 40%)	Significant share	Approx. 20%	Low importance (devaluation of prestige)

Source: own elaboration based on the survey (n = 247).

The juxtaposition of results in Table 2 reveals a clear hierarchy of student motivations, supporting the hypothesis of the pragmatism of the new generation (Context). What stands out is the reversal of the traditional pyramid of prestige: the symbolic capital of the university's brand, important only to about every fifth respondent, loses to the "hard" parameters of the offer such as the flexibility of the timetable (Organisation/Delivery) and employment prospects.

Particularly important from the perspective of the CORD model is the result concerning costs and online classes. The distribution of answers indicates a strong polarisation of the sample — for a large group, about 35% in the case of costs, these are neutral factors, which may suggest the existence of specific student segments (e.g. those who work versus those supported by parents) to which the university should address different communication and support strategies. This points to the need to move from mass marketing to precise targeting of the offer (Researching)²⁷.

Already at this stage it is visible that for the studied group "hard" aspects of the offer (costs, infrastructure, timetable, employment prospects) are more important than symbolic prestige, which is consistent with OPI's observations on the growing role of economic and organisational factors in educational decisions²⁸.

4.1. Interpretation of the results in the CORD context

Context: a pragmatic generation and demographic decline

The results indicate a strongly pragmatic attitude among first-year students: what matters are costs, location, the ability to combine studies with work and employment prospects, rather than only prestige or “student life”. This picture fits well with labour market analyses showing the pressure to enter employment quickly and the uncertainty about the return on investment in a diploma. From the perspective of CORD, this means a change of context: students may perceive studies as an investment project that must be compatible with other spheres of life²⁹.

The demographic decline and the growing number of places in universities additionally shift the balance of power — it is the universities that compete for the student, not the other way around, as confirmed by both Kwiek and Antonowicz. At the same time, the presented results show that universities do not always accurately read the priorities of this new “clientele”: instead of building the prestige of the “brand”, they should work intensively on adjusting the organisation and the programme to pragmatic expectations³⁰.

Organisation: between declaration and practice

Strategic documents of Polish universities are dominated by the language of modernisation, digitalisation and student-centrism, yet the research of Antonowicz and Leja shows that the organisational mechanisms for implementing such strategies are weak, and that organisational culture often rests on inertia and conservatism. The results indirectly reveal this gap: students signal the high importance of a timetable that allows combining studies with other duties, but in many universities schedules are still designed according to the logic of the convenience of the staff rather than the rhythm of students’ lives³¹.

Researching: from a one-off survey to learning analytics

The very fact of conducting a survey among first-year students fits into the Researching component, but for CORD to work in full the research cannot be a one-off or purely declarative exercise. OPI shows that drop-out risk grows at specific moments and is associated, among other things, with attendance, timeliness and results in the first semesters. Combining survey data (on expectations and factors of choice) with administrative data (on the course of studies) could reveal non-obvious correlations, e.g.:³²

- students who declare a high importance of the flexibility of the timetable drop out more frequently when the schedule does not allow them to work,
- those who place strong importance on employment prospects may be more inclined to change university or field when they do not see a link between the programme and the labour market.

CORD can therefore be linked with the idea of the “data-driven university” described by Sułkowski — universities should not only ask students but also systematically analyse digital traces and respond to risk signals³³.

Developing/Delivery: the format of studies as the key “product”

The results clearly show that what matters to students is not only the content of the programme (employment prospects, range of fields), but above all the way it is delivered: the timetable, the form of classes (including online ones) and the ability to combine studies with other activities. This confirms Maringe’s central thesis that the “product” of the university is not the abstract “diploma” but the actual experience of learning — curriculum and delivery³⁴.

Set against OPI data, a functional hypothesis can be put forward: the flexibility of the form of teaching (including the presence of sensibly designed online components) and the possibility of more intensive, condensed timetables (3-4 days instead of 5 dispersed ones) act protectively against drop-out, especially among working students.

Czy jest dla Ciebie ważne mieć mniej dni z zajęciami w tygodniu (np. 3-4 intensywnie zamiast 5 luźniej)
247 odpowiedzi

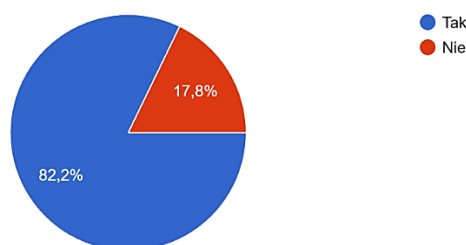


Figure 1. Importance of a flexible timetable for first-year students (distribution of answers to the question: “Is it important for you to have fewer days of classes per week — e.g. 3-4 intensive days instead of 5 dispersed ones?”, n = 247).

Source: own elaboration based on the survey (n = 247).

A non-obvious correlation emerging from the data is the relation between a low declared importance of prestige and a high importance of pragmatic aspects of the offer — this suggests that, in the competition for this group of students, advantage may be built more through “Delivery” than through the symbolic capital of the brand³⁵.

The declining importance of university prestige should not be interpreted as the disappearance of symbolic or reputational factors from the higher education choice process. Rather, the findings suggest a shift in the hierarchy of decision-making criteria among first-year students. In conditions of demographic decline, rising costs of living and increasing pressure to combine studies with paid work, prestige becomes only one of several competing signals. Students may increasingly evaluate higher education institutions through the lens of functional value: employability, timetable flexibility, affordability, location and compatibility with individual life circumstances. This interpretation is consistent with the literature on university choice, which shows that academic reputation remains important, but is assessed alongside costs, location, employment prospects, financial aid and programme structure.

5. Discussion — hypotheses and potential causal relations

Before the study, three preliminary hypotheses were adopted, which after the analysis of the results were developed and refined as propositions for further quantitative research. The following is a detailed mapping of the transition from the preliminary hypotheses to the final ones.

H1: A mismatch between the organisation of studies (schedule and class formats) and students' life profile (e.g. combining studies with paid work) increases the risk of dropping out.

The study showed that the alignment of the organisation of studies (schedule, class formats) with the student's profile (work, family duties) appears to be an important factor associated with declared drop-out intention. Prestige has only marginal significance for the studied group (around 20%), while organisation (timetable) is crucial. The final hypothesis has thus been strengthened — it shows that even a highly prestigious university will lose its student if it is poorly organised. This is an important conclusion: “prestige does not protect against drop-out”.

H2: The greater the alignment between students' declared priorities (costs, flexibility, employment prospects) and the actual offer and organisational practice of the university, the lower the declared propensity to drop out.

In the light of the study results, the hypothesis takes the form: the greater the fit between the student's declared priorities (costs, flexibility, employment prospects) and the university's offer, the lower the declared propensity to drop out.

This hypothesis is preliminarily supported by the descriptive results and should be tested further using regression-based and longitudinal designs. The results of the survey showed a convergence of priorities (costs, work) with the intention to continue studies. The hypothesis moved from the phase of “assumption” to the phase of a “conclusion from a pilot study”, ready to be tested on a large sample.

H3: Universities with weaker research resources build their competitive advantage through investment in the Development/Delivery element (flexibility, support, personalisation), which may reduce drop-out in groups particularly sensitive to organisational factors.

The study showed that universities with weaker research resources more often compensate for the lack of prestige with investments in Delivery (flexibility, support, personalisation), which may reduce drop-out in segments more sensitive to organisational factors³⁶.

The results of the survey (high importance of flexibility, low importance of the brand) provide strong grounds to claim that for non-public and regional universities this is the only effective strategy of survival.

Potential causal relationships may include changes in the timetable (e.g. moving to a 3-4 intensive day + 1-2 free day format), which can lead to a decrease in resignations among working students during the first two semesters and which requires further investigation. Other links worth verifying are the introduction of an early-warning system based on data from internal LMS platforms (attendance, activity, results) and intervention activities (tutor, advisor), which can reduce the rate of removals due to failed subjects³⁷. The aspect of involving students in the co-design of the programme (the Delivery/Organisation component) also requires verification, as this may increase their sense of agency and belonging and thereby indirectly lower their intention to drop out.

6. Summary —practical implications, research limitations and the future of the CORD model

The research has significant limitations that should be taken into account when interpreting the results. The sample was purposive and not random, which restricts the possibility of generalising the results to the entire population of first-year students in Poland. Moreover, the over-representation of certain fields or types of universities (e.g. urban universities) may distort the picture of the factors of choice and of the propensity to drop out. The study was cross-sectional in nature, which prevents the full capture of the dynamics of changes in attitudes and decisions over time. No strong causal conclusions can be drawn from it, only hypotheses. The study also lacks a link with actual data on the course of studies (passes, attendance), which makes it impossible to verify which respondents have actually dropped out in subsequent semesters.

Despite these limitations, the study provides a valuable, exploratory insight into how first-year students perceive the study offer, and into how these perceptions can be interpreted in the CORD logic, especially in the context of Polish debates on digitalisation, system drift and university stratification. Awareness of these limitations is crucial when formulating the practical implications and recommendations on the further development of the CORD model, which cannot be treated as universal, but rather as directional guidance.

On the basis of the analysis carried out, it is assumed that the original construction of CORD, although still useful, does not fully reflect the complexity of the contemporary challenges facing universities; hence, the author's proposal to extend the model and to formulate forecasts and recommendations concerning its further evolution. The title issue — “The future of the CORD model” — assumes a reflection both on how the model can evolve and on its usefulness for future challenges.

The most probable direction of development is to turn CORD into a more comprehensive model that takes into account new realities. This can be framed as a transition from CORD 1.0 to CORD 2.0, or CORD+.

An extended model could include the linking of CORD with the Digital element, that is the full integration of the digital component. Each of the CORD pillars should then be analysed in terms of the requirements of the digital era. Another recommendation is to link CORD with Resilience — the inclusion of explicit mechanisms increasing resilience in the model. These may include, for instance, procedures for the periodic review of risks and contingency plans, which connects to Context as the identification of concerns; the development of a culture of proactive adaptation as part of Organisation, encouraging staff initiatives for facilitation; early-warning and evaluation systems within Delivery — listening to warning signals from the environment and inside the institution — and the capacity for rapid refocus, that is the situation in which a change of environment can reorient the activity of the university, e.g. by launching new forms of teaching.³⁸

The final element is also the combination of CORD with Sustainability — the addition of a sustainable development perspective as a dimension permeating all the elements. Context expands to include concern for the social and environmental impact; Organisation, the building of shared responsibility for sustainable development goals (e.g. a green campus created by the entire community); Research, the design of curricula taking into account education for sustainable development; Delivery, the dialogue with stakeholders on the expectations related to the social mission of the university.

References

1. Al-Ali, M.S., Sellami, A., Ahmed, E.A. (2018). Determinants of College and University Choice for High-School Students in Qatar. *International Journal of Higher Education*, pp. 1–15.
2. Antonowicz, D. (n.d.). *Szkolnictwo wyższe w Polsce weszło w dryf [Higher education in Poland has entered a drift]*. Retrieved from: <https://wszystkoconajwazniejsze.pl/pepites/szkolnictwo-wyzsze-w-polsce-weszlo-w-dryf-prof-dominik-antonowicz/>, 29.12.2025.
3. Broadbent, J. et al. (2023). Post-pandemic higher education: systematic review of implications and transformations. *Social Sciences and Education Research Review*, pp. 316–322.
4. Domański, T. (n.d.). *Strategie internacjonalizacji uczelni [Strategies of university internationalisation]*. Retrieved from: https://repozytorium.uni.lodz.pl/bitstream/handle/11089/41693/Domanski_Strategie%20internacjonalizacji.pdf, 29.12.2025.

5. Edunews (n.d.). *Niedofinansowane szkolnictwo wyższe będzie dryfować [Underfunded higher education will drift]*. Retrieved from: <https://www.edunews.pl/badania-i-debaty/opinie/7262-niedofinansowane-szkolnictwo-wyzsze-bedzie-dryfowac>, 19.12.2025.
6. Google Scholar profile (n.d.). Retrieved from: <https://scholar.google.com/citations?user=Y3WfUzQAAAAJ&hl=en>, 30.12.2025.
7. IRSW (n.d.). *Raport OPI PIB: zjawisko drop-outu na polskich uczelniach [OPI PIB Report: drop-out at Polish universities]*. Retrieved from: <https://irsw.pl/raport-opi-pib-zjawisko-drop-outu-na-polskich-uczelniach/>, 21.12.2025.
8. Ivy, J. (2008). A new higher education marketing mix: The 7Ps for MBA marketing. *International Journal of Educational Management*, pp. 288-299.
9. Kwiek, M. (2024). Znikający naukowcy [The vanishing scientists]. *Nauka*. Retrieved from: http://cejsh.icm.edu.pl/cejsh/element/bwmeta1.element.ojs-doi-10_24425_nauka_2024_149837/c/articles-55996075.pdf, 29.12.2025.
10. Leja, K. (n.d.). *Publications*. Retrieved from: <https://mostwiedzy.pl/pl/krzysztof-leja,2958-1/publications>, 29.12.2025.
11. Maringe, F. (2005). Interrogating the crisis in higher education marketing: the CORD model. *International Journal of Educational Management, Vol. 19, Iss. 7*, pp. 564-578. Retrieved from: <https://www.emerald.com/ijem/article-abstract/19/7/564/117805/Interrogating-the-crisis-in-higher-education>, 21.12.2025.
12. Maringe, F. (2006). University and course choice: Implications for positioning, recruitment and marketing. *International Journal of Educational Management, Vol. 20, Iss. 6*, pp. 466-479. Retrieved from: <https://www.emerald.com/ijem/article-abstract/20/6/466/120037/University-and-course-choiceImplications-for>, 30.12.2025.
13. Maringe, F. (2009). The CORD model: Marketing strategy for higher education. In: F. Maringe, P. Gibbs (Eds.), *Marketing higher education: Theory and practice* (pp. 45-46). Maidenhead: Open University Press.
14. Maringe, F., Gibbs, P. (2008). *Marketing higher education: Theory and practice*. Open University Press. Retrieved from: [https://repo.darmajaya.ac.id/4213/1/Felix%20Maringe,%20Paul%20Gibbs%20-%20Marketing%20Higher%20Education_%20Theory%20and%20Practice%20\(2008\).pdf](https://repo.darmajaya.ac.id/4213/1/Felix%20Maringe,%20Paul%20Gibbs%20-%20Marketing%20Higher%20Education_%20Theory%20and%20Practice%20(2008).pdf), 21.12.2025.
15. Open ICM (n.d.). *Resource on academic policy*. Retrieved from: <https://open.icm.edu.pl/items/f3d3abde-e437-41cc-93ca-8f9ff5e4b362>, 31.12.2025.
16. OPI (n.d.). *Kto i dlaczego porzuca studia [Who drops out of studies and why]*. Retrieved from: <https://opi.org.pl/kto-i-dlaczego-porzuca-studia/>, 29.12.2025.
17. PMC (2022). Post-pandemic resilience in higher education. *PMC9605583*. Retrieved from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC9605583/>, 21.12.2025.
18. Pomoc Materialna (n.d.). *Raport OPI PIB [OPI PIB Report]*. Retrieved from: <https://pomocmaterialna.pl/blog/raportopipib>, 30.12.2025.

19. RADON (n.d.). *Drop-out — analizy [Drop-out — analyses]*. Retrieved from: <https://radon.nauka.gov.pl/analizy/dropout>, 29.12.2025.
20. Repozytorium UR (n.d.). *Educational study resource*. Retrieved from: <https://repozytorium.ur.edu.pl/bitstreams/5259add7-d61c-4e7a-b264-fa2e1e1f4e45/download>, 30.12.2025.
21. Roga, R., Lapina, I., Müürsepp, P. (2015). Analysis of factors influencing foreign students' choice of higher education institution. *Procedia – Social and Behavioral Sciences*, Vol. 213, pp. 925-930.
22. Santoro, G., Vrontis, D. et al. (2018). A Framework Based on Sustainability, Open Innovation, and Value Co-creation Paradigms — A Case in an Italian Maritime Cluster. *Sustainability*, p. 729.
23. Sciendo (2023). Article on educational research. *Economics and Regional Studies*. Retrieved from: <https://sciendo.com/pdf/10.2478/ers-2023-0040>, 30.12.2025.
24. Sułkowski, Ł. (2022). *Zarządzanie uczelnią [University management]*. Retrieved from: https://www.biblos.pk.edu.pl/ST/2022/10/100000340978/100000340978_Sulkowski_ZarzadzanieUczelnia.pdf, 21.12.2025.
25. Zeszyty Naukowe GSW (n.d.). *Article on higher education*. Retrieved from: <https://ojs.gsw.gda.pl/index.php/ZNGSW/article/download/138/102/185>, 31.12.2025.

Footnotes

1. Edunews. *Niedofinansowane szkolnictwo wyższe będzie dryfować*. Retrieved from: <https://www.edunews.pl/badania-i-debaty/opinie/7262-niedofinansowane-szkolnictwo-wyzsze-bedzie-dryfowac>, 19.12.2025.
2. IRSW. *Raport OPI PIB: zjawisko drop-outu na polskich uczelniach*. Retrieved from: <https://irsw.pl/raport-opi-pib-zjawisko-drop-outu-na-polskich-uczelniach/>, 19.12.2025.
3. Santoro, G., Vrontis, D. et al. (2018). A Framework Based on Sustainability, Open Innovation, and Value Co-creation Paradigms — A Case in an Italian Maritime Cluster. *Sustainability*, p. 729.
4. Maringe, F. (2006). University and course choice: Implications for positioning, recruitment and marketing. *International Journal of Educational Management*, 20(6), pp. 466-479.
5. Maringe, F. (2009). *The CORD model: Marketing strategy for higher education. Theory and Practice*. In: F. Maringe, P. Gibbs (Eds.), Maidenhead: Open University Press, pp. 45-46.
6. Maringe, F. (2005). *Interrogating the crisis in higher education marketing: the CORD model*. Retrieved from: <https://www.emerald.com/ijem/article-abstract/19/7/564/117805/Interrogating-the-crisis-in-higher-education>, 21.12.2025.

7. Ibidem.
8. PMC (2022). Retrieved from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC9605583/>, 21.12.2025.
9. Maringe, F., Gibbs, P. (2008). *Marketing Higher Education: Theory and Practice*. OPI PIB reports. Open University Press. Retrieved from: <https://irsw.pl/raport-opi-pib-zjawisko-drop-outu-na-polskich-uczelniach/>, 21.12.2025.
10. IRSW. Retrieved from: <https://irsw.pl/raport-opi-pib-zjawisko-drop-outu-na-polskich-uczelniach/>, 21.12.2025.
11. Sułkowski, Ł. (2022). *Zarządzanie uczelnia*. Retrieved from: https://www.biblos.pk.edu.pl/ST/2022/10/100000340978/100000340978_Sulkowski_ZarzadzanieUczelnia.pdf, 21.12.2025.
12. IRSW. Retrieved from: <https://irsw.pl/raport-opi-pib-zjawisko-drop-outu-na-polskich-uczelniach/>, 21.12.2025.
13. Maringe, F., Gibbs, P. (2008). *Marketing Higher Education: Theory and Practice*. Retrieved from: [https://repo.darmajaya.ac.id/4213/1/Felix%20Maringe,%20Paul%20Gibbs%20-%20Marketing%20Higher%20Education_%20Theory%20and%20Practice%20\(2008\).pdf](https://repo.darmajaya.ac.id/4213/1/Felix%20Maringe,%20Paul%20Gibbs%20-%20Marketing%20Higher%20Education_%20Theory%20and%20Practice%20(2008).pdf), 21.12.2025.
14. Al-Ali, M.S., Sellami, A., Ahmed, E.A. (2018). Determinants of College and University Choice for High-School Students in Qatar. *International Journal of Higher Education*, pp. 1-15.
15. Sułkowski, Ł. (2022). *Zarządzanie uczelnia*. Retrieved from: https://www.biblos.pk.edu.pl/ST/2022/10/100000340978/100000340978_Sulkowski_ZarzadzanieUczelnia.pdf, 29.12.2025.
16. Ibidem.
17. Kwiek, M. (2024). *Znikający naukowcy*. Retrieved from: http://cejsh.icm.edu.pl/cejsh/element/bwmeta1.element.ojs-doi-10_24425_nauka_2024_149837/c/articles-55996075.pdf, 29.12.2025.
18. Ibidem.
19. Antonowicz, D. *Szkolnictwo wyższe w Polsce weszło w dryf*. Retrieved from: <https://wszystkoconajwazniejsze.pl/pepites/szkolnictwo-wyzsze-w-polsce-weszlo-w-dryf-prof-dominik-antonowicz/>, 29.12.2025.
20. Domański, T. *Strategie internacjonalizacji*. Retrieved from: https://repozytorium.uni.lodz.pl/bitstream/handle/11089/41693/Domanski_Strategie%20in ternacjonalizacji.pdf, 29.12.2025.
21. Leja, K. *Publications*. Retrieved from: <https://mostwiedzy.pl/pl/krzysztof-leja,2958-1/publications>, 29.12.2025.
22. RADON. *Drop-out — analizy*. Retrieved from: <https://radon.nauka.gov.pl/analizy/dropout>, 29.12.2025.

23. OPI. *Kto i dlaczego porzuca studia*. Retrieved from: <https://opi.org.pl/kto-i-dlaczego-porzuca-studia/>, 29.12.2025.
24. Maringe, F. (2006). University and course choice. Retrieved from: <https://www.emerald.com/ijem/article-abstract/20/6/466/120037/University-and-course-choiceImplications-for>, 30.12.2025.
25. Ivy, J. (2008). A new higher education marketing mix: The 7Ps for MBA marketing. *International Journal of Educational Management*, pp. 288-299.
26. Repozytorium UR. Retrieved from: <https://repozytorium.ur.edu.pl/bitstreams/5259add7-d61c-4e7a-b264-fa2e1e1f4e45/download>, 30.12.2025.
27. Roga, R., Lapina, I., Mürsepp, P. (2015). Analysis of factors influencing foreign students' choice of higher education institution. *Procedia – Social and Behavioral Sciences*, 213, pp. 925-930.
28. Pomoc Materialna. *Raport OPI PIB*. Retrieved from: <https://pomocmaterialna.pl/blog/raportopipib>, 30.12.2025.
29. Sciendo. Retrieved from: <https://sciendo.com/pdf/10.2478/ers-2023-0040>, 30.12.2025.
30. Google Scholar profile. Retrieved from: <https://scholar.google.com/citations?user=Y3WfUzQAAAAJ&hl=en>, 30.12.2025.
31. Open ICM resource. Retrieved from: <https://open.icm.edu.pl/items/f3d3abde-e437-41cc-93ca-8f9ff5e4b362>, 31.12.2025.
32. RADON. *Drop-out — analizy*. Retrieved from: <https://radon.nauka.gov.pl/analizy/dropout>, 31.12.2025.
33. PMC (2022). Retrieved from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC9605583/>, 31.12.2025.
34. Maringe, F., Gibbs, P. (2008). *Marketing Higher Education: Theory and Practice*. Retrieved from: [https://repo.darmajaya.ac.id/4213/1/Felix%20Maringe,%20Paul%20Gibbs%20-%20Marketing%20Higher%20Education_%20Theory%20and%20Practice%20\(2008\).pdf](https://repo.darmajaya.ac.id/4213/1/Felix%20Maringe,%20Paul%20Gibbs%20-%20Marketing%20Higher%20Education_%20Theory%20and%20Practice%20(2008).pdf), 31.12.2025.
35. Zeszyty Naukowe GSW. Retrieved from: <https://ojs.gsw.gda.pl/index.php/ZNGSW/article/download/138/102/185>, 31.12.2025.
36. Kwiek, M. (2024). *Znikający naukowcy*. Retrieved from: http://cejsh.icm.edu.pl/cejsh/element/bwmeta1.element.ojs-doi-10_24425_nauka_2024_149837/c/articles-55996075.pdf, 03.01.2026.
37. Sułkowski, Ł. (2022). *Zarządzanie uczelnia*. Retrieved from: https://www.biblos.pk.edu.pl/ST/2022/10/100000340978/100000340978_Sulkowski_ZarzadzanieUczelnia.pdf, 03.01.2026.
38. Broadbent, J. et al. (2023). Post-pandemic higher education: systematic review of implications and transformations. *Social Sciences and Education Research Review*, pp. 316-322.