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Making sense of higher education: students as consumers and the value of the university experience

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In the global university sector competitive funding models are progressively becoming the norm, and institutions/courses are frequently now subject to the same kind of consumerist pressures typical of a highly marketised environment. In the United Kingdom, for example, students are increasingly demonstrating customer-like behaviour and are now demanding even more ‘value’ from institutions. Value, though, is a slippery concept, and has proven problematic both in terms of its conceptualisation and measurement. This article explores the relationship between student value and higher education, and, via study in one United Kingdom business school, suggests how this might be better understood and operationalised. Adopting a combined qualitative/quantitative approach, this article also looks to identify which of the key value drivers has most practical meaning and, coincidentally, identifies a value-related difference between home and international students.

Keywords: marketing; higher education; student value; student as consumer; sensemaking

Introduction

Interest in the customer value concept emerged, perhaps, forty years ago (see Monroe 1973). Since then many attempts have been made to articulate the customer value domain, though with varying degrees of equanimity (Boksberger and Melsen 2011; Gallarza, Gil-Saura, and Holbrook 2011; Khalifa 2004; Sanchez-Fernandez and Iniesta-Bonillo 2007; Woodall 2003). Research has accelerated over recent years, driven by the assumptions that: (a) customer value is the foundation for all marketing endeavour (Holbrook 2004), and (b) the discovery of appropriate metrics will help organisations achieve competitive advantage (Lapierre 1997). More recently, its implication as key market driver in the burgeoning literature on service-dominant logic (Vargo and Lusch 2004) has provided further evidence of value’s critical role in explaining how consumers think and behave.

Customer value has been explored across a wide range of service contexts, including online retailing, mobile telephony, hospitality, tourism, finance, and airlines; almost anywhere that competitive pressures apply. Recently though, even in those countries where a welfare culture has traditionally pertained, these pressures have grown, with healthcare (Propper, Wilson, and Burgess 2006), utilities (Giullietti, Price, and

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Waterson 2005) and schools (Goldhaber and Eide 2003) all now increasingly subject to mercantile demands. In the global university sector, US-type funding models are increasingly the norm, and in the United Kingdom, for example, a 'new age' of top-up fees has recently emerged (Ng and Forbes 2009). Given this, and the escalating availability of learning/research opportunities worldwide (Observatory on Borderless Higher Education 2011), it is no surprise that value is now an issue of increasing student concern (Asthana 2006).

Whether students, though, can be considered consumers is open to debate, but the insidious incursion of the customer concept (Eagle and Brennan 2007) and escalating fees (BBC 2011) suggest British higher education now represents an increasingly relevant context in which to evaluate consumer issues. How, though, might value for students be conceptualised and measured? As implied above, there is little agreement on how demand-side value might be specified, and a recent analysis suggests 'it is evident that the theory of perceived value has a number of different concepts and theories that make up its foundations' (Boksberger and Melsen 2011, 233). What value is, and what it is not, is hard to decipher, and the literature, generally, demonstrates how slippery this is perceived to be, irrespective of context.

This article has four key aims. First, via a review of the relevant literature, it seeks to identify how higher education and consumer value have been linked. Second, it explores, critically, how customer value has been measured thus far and looks to offer a 'new' method; one that combines expedience and authenticity, and which relates readily to a higher education context. There has, to date, been no attempt to formally evaluate the comparative relevance of the differing customer value 'concepts and theories' (Boksberger and Melsen 2011), so, third, this article looks to correct that omission. Finally, it seeks to bring to the surface the factors important to students at one particular United Kingdom business school (the school) and to explore how value for students might be characterised.

Marketing through experience

Service consumption entails 'immersion in an experiential context' (Cova and Dallı 2009, 318), and services are, essentially, experiential and phenomenological (Vargo and Lusch 2008), lived and recounted, often, in emotionally labyrinthine terms. Higher education is a highly complex service, offering an intense, emergent unstructured, interactional and uncertain environment (Ng and Forbes 2009). Students will inevitably experience both highs and lows, and for universities, of course, satisfaction has now assumed substantial importance, not only in the United Kingdom, where the National Student Survey (Higher Education Funding Council for England 2011) puts a premium on satisfaction (Douglas, Douglas and Barnes 2006), but in other countries, too, where competition is also growing (e.g. Clemes, Gan, and Kao 2007; Gruber et al. 2010; Helgesen and Nettet 2007). Clearly, the publication of satisfaction data will impact considerably on aspiring undergraduates, and studies directly addressing student satisfaction have increased in recent years (e.g. Gruber et al., 2010; Moro-Egido and Panadés 2010; Munteanu et al. 2010).

Others, though, have considered loyalty to be of primary significance (e.g. Hennig-Thurau, Langer, and Hansen 2001; Kenney and Khanfar 2009; Rojas-Méndez et al. 2009). Loyalty can be conceptualised in different ways, but following Dick and Basu's (1994) seminal typology is now widely accepted as comprising both attitude and behaviour. The former provides the motivation, whilst the latter is manifested

negatively as either defection (or attrition) and/or proclivity to complain; and positively as either retention, and/or willingness to recommend. From a wider perspective, therefore, and considering postgraduate/post-experience programmes too – word-of-mouth is now considered key for marketing and sales (Bruce and Edgington 2008; Prugsamatz, Pentecost, and Ofstad 2006; Patti and Chen 2009).

Satisfaction and loyalty represent reactions to product-related stimuli and, given the important contributing role of service attributes, studies concerning service quality, using either SERVQUAL (Parasuraman, Zeithaml, and Berry 1988), or SERVQUAL-derived, measures, are also, unsurprisingly, legion (Centeno et al. 2008; Nadiri, Kandampully, and Hussain 2009; Quinn et al. 2009; and as far back as Rigotti and Pitt 1992). Service quality is of interest to service providers as it offers a focus for managerial action based upon clearly defined improvement opportunities. The objective of meeting, or exceeding, customers' expectations, underpins this (Grönroos 1984) and is consequently key.

Satisfaction and loyalty, though, are initiated by more than service quality alone, and reflect myriad cues including price, indirect costs, time and effort (Grönroos 1997), brand/organisational image (Dodds, Monroe, and Grewal 1991), and a complex web of intrinsic prompts (Holbrook 1996) that cause consumers to reflect critically on their service encounters. Collectively these provide for a richer and more comprehensive representation of customer concern (Bolton and Drew 1991), and it this we refer to as customer value

The case for student value

The word 'value', though, is replete with semantic diversity, and this multiplicity of meaning has been readily transferred into the consumer canon. Different interpretations result in differently operationalised measures, and there is evidence across all literatures – higher education included – of conceptual conflict. Figure 1 illustrates the five different ways in which customer value can be conceptualised, and this framework (adapted from Woodall 2003) will be used as a point of reference throughout.

The argument thus far has relied on the assumption that the consumer concept is relevant to students, and that a marketing discourse is appropriate to their concerns. This point, though, is far from given, and the 'student as customer' metaphor is less than universally acknowledged, especially, perhaps, amongst academics (Lomas 2007). The debate emerged in the 1990s (e.g. Baldwin 1994), with arguments 'against' citing an unwelcome emphasis on managerialism, commodification, commercialisation and instrumentalism, whilst arguments 'for' tend to focus on practical/

1. **Attributes** only – product/service features that consumers find to be of benefit, or value.
2. **Outcomes** only – benefits, or value, that consumers derive from their association with an offering.
3. **Value for money** – a readily rationalised balance of benefits and sacrifices, usually based on price and attributes (plus the more obvious outcomes).
4. **Net value** – a complex, intuitively balanced combination of all benefits (outcomes and/or attributes) and all sacrifices (monetary and/or non-monetary) perceived to be associated with a particular offering.
5. **Cheapest option** – bargain, usually focused on minimum possible sacrifice.

Figure 1. The major customer value concepts (adapted from Woodall 2003).

pragmatic issues concerning institution obligations and student rights (McCulloch 2009). Arguments remain active today and are still not resolved (Acevedo 2011; Obermiller and Atwood 2011), but the sense that marketing, and the customer metaphor, marginalise and trivialise core academic principles is never far away.

This article, though, largely eschews that debate, mainly because there are many contingencies to consider, and we believe that all positions are – to some degree – tenable. We do not claim here, for example, that students *are* customers but, rather, that they *can* be customers. And if students do occasionally demonstrate customer-like behaviour, and if – as they manifestly do – university managements construe them collectively as a source of revenue, then ‘customer’ becomes a legitimate frame of reference and analysis – and value, then, becomes an issue of shared concern.

Measuring student value I

The measurement of student value in higher education began with Webb and Jagun (1997) and LeBlanc and Nguyen (1999). Webb and Jagun (1997) characterised this via just two items, and only Alves and Raposo (2007) have since adopted this measure, adding to it a single ‘value-for-money’ item. Conversely, LeBlanc and Nguyen (1999) is more widely recognised, itself based on Sheth, Newman, and Gross (1991). The LeBlanc and Nguyen (1999) construct is of largely ‘net’ form, but is concerned more with attributes than outcomes and takes account, directly, only of price as sacrifice. Both Ledden, Kalafatis, and Samouel (2007) and Ledden and Kalafatis (2010) derived their ‘benefits’ items from here, and adapted Cronin et al. (1997) as a basis for both (further) monetary, and non-monetary sacrifices (time, effort and perceived risk). Perin, Sampaio, and Brei (2007), Petruzzellis and Romanazzi (2010) Relyea, Cocchiara, and Studdard (2008) and Schmidt (2002) have used similar elements, albeit differently arranged. Sanchez-Fernandez et al. (2010) is an outlier, though, adopting a price/attributes measure obtained from Dodds, Monroe, and Grewal (1991), whilst Sumaedi, Bakti, and Metasari (2011) consider the independent impacts of both service quality and price, but without directly referencing value.

Other studies have similarly not claimed association with value, but, nevertheless, have taken account of a wide range of sacrifice and/or benefit-related characteristics. Authors have often framed these in the context of either service quality (Carter 2009; and Clewes 2003), or satisfaction (e.g. Clemes, Gan, and Kao 2007; Paswan and Ganesh 2009) often with student expectations/perceptions as a focus. Purchase intention has been the source of other multi-factor studies, including Cubillo, Sánchez, and Cerviño (2006) and Briggs (2006). Some researchers invoke value but address outcomes only. Here ‘value added’ (or value derived as a result of the student experience) is frequently the focus. Brooks and Everett (2009), Gedye, Fender, and Chalkley (2004), Rodgers (2007) consider the student view, but other stakeholders (e.g. employers; society) have also been considered (see Girot et al. 2006; Kaufman, Villaneuva, and Bernádez 2011; McLung and Werner 2006).

Although not exclusively the case, benefits versus sacrifice studies tend toward the quantitative, whilst benefits-only are mainly qualitative. Voss, Gruber, and Smizgin (2007), for example, adopt Gutman’s (1982) means-end approach, and use laddering techniques to map university attributes to student consequences, or desired end-states (both analogous to outcomes). Value mapping (qualitative) and value scaling (quantitative) represent two distinct traditions of customer value assessment, the key difference

being that value mapping/benefits-based approaches seek primarily to identify stakeholder preferences – so as to identify opportunities for improvement – whilst scaling (benefits only, or benefits versus sacrifice) focus mainly on linking product/service properties to consumption-related variables such as satisfaction and loyalty. Here the aim is to surface connections between consumption and the likelihood of repurchase (in higher education, normally a subsequent course of study), or recommending to others. There are many studies, too, that address specific concerns (e.g. Walsh, 2010 on the cultural environment; Hallet 2010 on study support; Ginns, Prosser, and Barrie 2007 on teaching quality) and early-years retention/attrition (for which there is an extensive parallel literature).

Value measurement to date: critique

Qualitative outputs are useful but lack predictive power, and represent only a small proportion of the value-related canon. Most studies focus on scale or index development and, following Jarvis, MacKenzie, and Podsakoff (2003), a consensus has emerged implying that customer value is a higher-order construct comprising a number of distinct, formative, dimensions, which can each be represented reflectively (Ruiz et al. 2008). Scaling is normally based around ‘good’ empirical protocols (Churchill 1979; Nunnally 1978), which assume there is a shared reality ‘out there’ that can be captured, organised and generalised. It has already been demonstrated, though, that customer value is an elusive concept, yet researchers continue to apply logical-positivistic ideals to its specification and measurement. Personifying value thus assumes a level of epistemological conviction that is less than reasonable; and, although also pertinent to measurement of other consumption-related phenomena, we identify certainties regarding temporality, parsimony, dynamics, and arrangement to be especially moot.

Temporality

Scale items are temporally configured – e.g. ‘I *will* learn new things from the course’ (Ledden and Kalifatis 2010); ‘I *am* sure that the university staff *were* always acting in my best interest’ (Rojas-Méndez et al. 2009) – yet how can we know in which direction a respondent’s thoughts might gravitate, and which of these directions is likely to pervade? Bentham’s (1798/1948) hedonic, or felicific, calculus (in the context of moral philosophy) suggests human judgements are multifaceted, combining a range of perspectives – extending from the present, to the near future, and then the far future – and focus on both the likelihood and distributive nature of an experience. Rossiter (2002) argues that past, present and future are highly correlated, but this is far from certain, especially for a complex phenomenon such as value, where a range of cues – memory, experience, hope and expectation – are invoked.

Parsimony

Diamantopoulos and Siguaw (2006) suggest the key characteristics of scales are content, parsimony and criterion validity. Parsimony arises from balancing validity, simple structure and reliability (DeVellis 2003), and it is generally held that scales should comprise that number of items achieving this in the most economic fashion. Not everyone subscribes to scaling principles, though, and researchers have argued that these inappropriately preference efficiency over effectiveness (see

Diamantopoulos, Riefler, and Roth 2008). Value is an especially rich phenomenon and, in its most complex form, challenges conventional principles of synthesis and stucturation.

Dynamics

Value is dynamic, and a number of studies have addressed this at different points in the educational life-cycle (e.g. Ledden and Kalifatis 2010; LeBlanc and Nguyen 1999). Some have sought to compare attitudes of differing student groups, but at more-or-less the same time (e.g. Petruzzellis and Romanazzi 2010; Relyea, Cocchiara, and Stud-dard 2008). In each instance researchers have used similar constructs, assuming, implicitly, that students perceive value similarly irrespective of time, place, or location. In reality, different value-related attributes become more, or less, relevant at different times, and we should not suppose, for example, that a scale developed for freshers properly reflects the concerns of students in their final year. Scales are static and are meant for generalisable contexts; yet value submits to neither.

Arrangement

Scales are arranged to represent the character, weightings, and relationships relevant to specific objects of concern. Often, sub-scales are summated such that the construct score aggregates contributing scores. This is always questionable, as the true relationship between sub-constructs can never be fully known, but this becomes especially problematic where, as with value, there is frequently both numerator and denominator. There is no consensus regarding how benefits and sacrifices might be expressed; whether attributes, experiences or outcomes are most relevant; how monetary and non-monetary sacrifices might be added; and how the benefit/sacrifice relationship should best be computed. None of this is resolved, yet we still purport to measure value via prescriptive, fixed, scales.

An alternative way of operationalising student value

Heskett, Sasser, and Schlesinger's (1997) 'value equation' is a simple, but highly potent representation of how customer value in its most comprehensive 'net' form (see Figure 1) might be characterised. Grönroos (1997), too, developed a similar device. Each is represented as a four-quadrant equation, where numerator denotes benefits, and denominator is sacrifices. For both models, benefits comprise outcomes/results plus a theory-specific attribute indicator ('functional quality' and 'additional services' respectively), and sacrifices comprise price plus a theory-specific indirect sacrifice indicator ('acquisition costs' and 'relationship costs'). Neither model is complete in itself, but these can be combined to create a rationalised and more comprehensive framework (Figure 2).

This model provides an *a priori* perspective on the basic structure of customer value and, coincidentally, also incorporates all elements relevant to the five ways in which this might be construed (see Figure 1). It also has good face validity and can be used as a template on which to project more nuanced profiles of consumer interest. Our study begins with the assumption that any or all of the five customer value perspectives might be relevant, and that we can't say how contributing quadrants might be weighted or populated for a particular context, time or cohort. Student seminars provided a

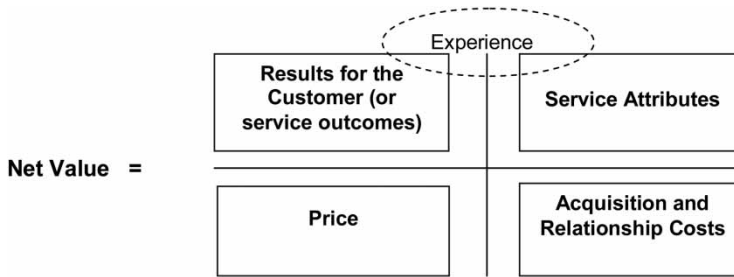


Figure 2. Adapted value equation (based on Heskett, Sasser, and Schlesinger 1997; Grönroos 1997).

vehicle for data collection and, in all, there have been 23 separate research events involving 320 students (233 final-year undergraduate and 87 postgraduate) over a period of three years. Undergraduates were primarily home-based, whilst postgraduates were largely international (mainly, but not exclusively, from East Asia). Given that study cohorts were broadly typical of those across the school, our overriding concern was to obtain the largest practicable sample. Consequently, all students taking services marketing classes over the period were included.

At each event classes were split into groups of four to five students, and each was asked to focus on one of the three non-price factors ('price' is pre-identified as 'course fees'), and to populate flip chart sheets with 'objects' they believed to be relevant to it. These were then arranged on a class room wall, organised to replicate Figure 2, and further discussion was encouraged with 'objects' being added/ removed as necessary. Students had all attended earlier customer value lectures, and group discussion further acted to normalise understanding. Our major objective here was to minimise the potential for item ambiguity in subsequent, survey-based, stages of the study, so as to avoid random or inappropriately systematic responses (Podsakoff et al. 2003).

Figure 3 is an 'ideal' representation of student value, identifying the most frequently occurring 'objects' across all 23 research events and demonstrating that each of the value quadrants can be further sub-divided (for illustrative purposes only) to explain the nature and complexity of the construct. For 'Results for the Customer' data is organised using a generic model from Woodall (2003) but for Service Attributes and Acquisition/Relationship Costs a context-specific structure is deemed more appropriate. Outputs from different events were similar but distinctive by collection year and cohort. For example, in early events undergraduates were concerned by print quota costs, whilst Asian postgraduates complained of dry atmosphere and the impact on their skin; and both would have appeared in relevant analyses. Neither issue, however, emerged subsequently. For each event, therefore, the general notion of student value is the same, but its composition varies to reflect contemporary concerns, and each student can establish his/her own 'evoked set' of issues to reflect upon. In this way we have captured value's dynamic character.

Measuring student value II

Thus far we have described a relatively conventional qualitative data collection process. Were the study to be continued this way, then analysis could be extended by using a prioritisation scheme to identify those 'objects' having the largest positive/negative



Figure 3. Ideal NetValue equation.

student impact (e.g. Briggs 2006; McKnight 2009). This would provide a basis for identifying detailed improvement opportunities – something that scale-based methodologies cannot achieve because of their inherent parsimony. Conversely, though, this would not offer benchmarking opportunities, nor the facility to allow student value to be associated with other key metrics (e.g. satisfaction or loyalty).

As a second research stage, therefore, we surveyed students – but, rather than employing parsimonious/fixed-structure scales, we used our populated flip-charts as a focus for response. We developed a range of five questions, each to be measured via the Satmetrix (2006) Netpromoter technique using 0–10 point Likert scales, to assess these. The first four questions were chosen to represent each of the first four

of the value conceptualisations given in Figure 1. The fifth conceptualisation (cheapest available) was not used, as this is mostly relevant to pre- rather than post-purchase evaluation. Coincidentally, these same questions were also considered representative of four of the five elements of our rationalised value equation (Figure 2). A further question was added to represent the fifth element, Acquisition and Relationship Costs. Table 1 identifies the five questions and suggested relationships. This is effectively a short index of formative measures (Diamantopoulos and Winklhofer 2001).

The efficacy of single-item indicators has long been challenged (e.g. Churchill 1979; Keiningham et al. 2007), though Bergkvist and Rossiter (2007) suggest these can be valid provided the attribute in question is sufficiently well described. Our logic, though, reflects the belief that we were asking an infinite number of questions rather than one. Effectively, each question was a prompt for students to ‘make sense’ (Weick 1995) of the completed value equation before them (see Figure 3) in the context of their own experiences, hopes, fears and aspirations. Sensemaking, a motivated, continuous, effort to understand connections between people, places and events (Klein, Moon, and Hoffman 2006), facilitates the creation of situational awareness and understanding, and helps subjects resolve ambiguity/uncertainty. Although most frequently associated with organisation studies, Mathing, Sandon, and Edvardsson (2004) point out that customers have sensemaking capabilities too, and our methods conform to Garcia-Murillo and Annabi’s (2002) four-step process of gathering customer-focused interactional knowledge. Service experience, an issue of increasing interest to researchers (Tynan and McKechnie 2009) exists as the bridge between attributes and outcomes/results (see Figure 2), and our approach allows students to evaluate at will across this continuum.

For calibration purposes (one week before each research event) we also posed two further single questions – Reichheld’s (2003) ‘ultimate question’, ‘How likely is it that you would recommend (the school) to a friend, family member, or acquaintance?’ (‘recommend’ in tables), and a single satisfaction-related question, ‘Please tell us how satisfied you are, generally, with the school’ (satisfaction). In early events we also posed a repurchase question but subsequently abandoned this after it became clear that contributing factors were largely outside the school’s sphere of influence. It is also excluded from later stages of our analysis.

Table 1. Research questions and associated constructs.

Value-based research questions	Value conceptualisation	Value equation element	Name
1. Does the school represent ‘good value’?	Net Value	Net Value	NetV
2. Are ‘results for the customer’ all you could wish them to be?	Outcomes	Results for the Customer	Results
3. Are ‘service attributes’ as good as you would like them to be?	Attributes	Service Attributes	Attributes
4. Considering what you get from the school, is the ‘price’ fair?	Value for money	Price	Price
5. Putting ‘price’ to one side, are ‘acquisition and psychological costs’ worth expending for the benefits you receive?	N/A	Acquisition and Relationship Costs	AcPsych

Results and discussion

Analysis of means

Results were considered on a pair-wise basis to minimise the impact of missing data (occasionally, students answering satisfaction and recommend questions were not present to answer value questions, and *vice versa*), and respondent numbers consequently vary across the analysis (see Table 2). Demographic profiling was purposely kept to a minimum, but we did, though, feel that some financial factors might impact results, so students were asked whether they were home or international (fees are substantially different), and whether they worked to support their studies. Consequently, it was possible for us to consider students both collectively and as three distinct categorical dyads – undergraduate/postgraduate, home/international and work/not work: a 3 × 2 factorial design. To ascertain if any of these dyads characterised our population we ran a MANCOVA (general linear model) to test for differences within and between categorical pairs. Dependent variables were Satisfaction, Repurchase and Recommend; covariants were NetV, Results, Attributes, Price and AcPsych.

The Wilks’ Lambda multivariate test of overall differences among groups was significant ($p \leq .05$), both for home/international ($F = 4.18$) and for the undergraduate/

Table 2. Descriptive statistics/independent samples test.

Variable	Demographic Category						t-test for equality of means			
	Work			Not Work			t	df	Sig (2 tail)	
	N	Mean	SD	N	Mean	SD				
Dep. Recommend	107	7.03	1.42	186	6.90	1.44	0.75	291	0.45	
Satisfy	106	3.80	0.61	186	3.80	0.64	0.08	290	0.94	
Repurchase	48	4.94	1.25	83	4.70	1.31	1.02	129	0.31	
Indep. NetV	108	6.42	1.48	195	6.42	1.54	-0.02	301	0.98	
Results	108	6.52	1.66	192	6.34	1.57	0.96	298	0.34	
Attributes	108	6.58	1.82	191	6.53	1.54	0.29	297	0.77	
Price	108	5.42	2.02	191	5.55	1.94	-0.59	297	0.56	
AcPsych	107	6.97	1.64	190	6.68	1.74	1.43	295	0.16	
		Home			International					
Dep. Recommend	207	7.18	1.32	86	6.37	1.52	4.58	291	0.00	
Satisfy	206	3.87	0.63	86	3.67	0.60	3.03	290	0.00	
Repurchase	99	4.98	1.29	32	4.19	1.12	3.12	129	0.00	
Indep. NetV	213	6.54	1.36	90	6.14	1.81	2.06	301	0.04	
Results	210	6.44	1.52	90	6.33	1.79	0.51	298	0.61	
Attributes	209	6.56	1.64	90	6.52	1.65	0.21	297	0.83	
Price	209	5.78	1.90	90	4.86	1.96	3.83	297	0.00	
AcPsych	209	7.09	1.54	90	6.07	1.85	4.93	295	0.00	
		Undergraduate			Postgraduate					
Dep. Recommend	217	7.13	1.34	77	6.33	1.54	4.58	302	0.00	
Satisfy	216	3.84	0.60	77	3.70	0.68	1.72	301	0.09	
Repurchase	107	4.81	1.33	35	4.49	1.20	1.30	140	0.20	
Indep. NetV	233	6.52	1.41	80	6.08	1.72	2.29	311	0.02	
Results	230	6.43	1.56	80	6.23	1.73	1.00	308	0.32	
Attributes	229	6.61	1.63	80	6.28	1.63	1.60	307	0.11	
Price	229	5.71	1.95	80	4.81	1.99	3.51	307	0.00	
AcPsych	228	7.07	1.56	79	5.90	1.81	5.50	307	0.00	

postgraduate to home/international interaction ($F = 3.33$). Tests of between-subjects effects involving all dyads were significant for the full corrected model ($p < .05$) in respect of all three dependent variables, and for both undergraduate/postgraduate ($F = 4.84$) and home/international ($F = 10.172$) for satisfy. Home/international was significant for Repurchase ($F = 3.80$), implying, generally, that this was the most discriminating of the category dyads. Given that multivariate test outcomes are susceptible to Type 2 error we also undertook *post hoc* univariate 't' tests – wary, though, of the potential for Type 1 error. Initially confirming equality of variances via Levene's test, we conducted tests for equality of means across the all students and for all categorical dyads (see Table 2); descriptive statistics were also recorded.

There were no differences in respect of work/not work, but for home/international differences were apparent for all dependent variables with home students more positive throughout. Significant differences were also apparent for sacrifices (Price and AcPsych), but not for benefits (Results and Attributes) – though a difference was noted for NetV which is clearly impacted by both. All three dependent variables were significant. For the undergraduate/postgraduate dyad significant differences were again apparent for both sacrifice-related independent variables (and on NetV), but this time only for the dependent variable, Recommend. Univariate and multivariate tests were thus in accord, suggesting that home/international and undergraduate/postgraduate dyads, only, were significant – but that the first of these was key. Subsequent analyses, therefore, compare home with international students, though results for all students ('All' in Figure 4 and Tables 3 to 5) are shown, also, for comparison.

Comparison of means for dependent variables shows that international students are less positive about their university experience than are their home counterparts. Figure 4 compares means for independent variables diagrammatically. For both international and home students Price was most negatively perceived, with international students more extreme in their judgements. The other factor for which a significant difference between category means was noted – AcPsych – was, in comparison with benefit categories, viewed relatively positively by home students, and relatively negatively by international students. For international students sacrifices in all areas were considered of more weight and likely explained the difference in sentiment between the two groups.

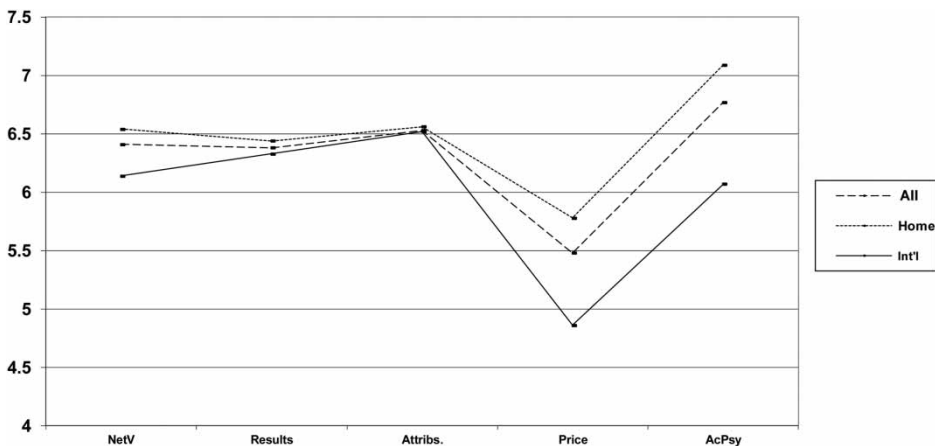


Figure 4. Analysis of means, independent variables.

Structural associations

Note that four of the five questions (excluding Q5) can be interpreted as representing components of Net Value but, also, as different customer value concepts (see Figure 1). NetV, therefore, can be considered both a dependent and an independent variable. With NetV considered an independent variable, we looked to establish the relationship between different customer value concepts and key attitude indicators, satisfaction and willingness to recommend. With NetV as a dependent variable we looked to establish the relationship between it and its constituent elements.

Note that we have not attempted to measure individual sub-dimensions of the various NetV elements (e.g. Practical, Strategic, Personal, Social Outcomes as subsets of ‘Results’), as we believe this has no practical benefit. Once beyond the first level of abstraction value should be considered qualitatively to capture its full range and scope. Determining that strategic outcomes are more important than, say, social outcomes, in terms of Recommend has no practical use, as strategic and social outcomes are both abstract ideas with no independent actionable existence. Conversely – and working in this same value quadrant – understanding, for example, attitude to enhanced employment/earning opportunities and social status/credibility, has; and this can be determined more effectively by qualitative prioritisation mechanisms. Scaling beyond the first level of abstraction is little more than an exercise in statistical modelling and has limited practical use.

Figure 5 identifies the paths we analysed in respect of: (a) NetV’s first level structure, and (b) the differing value concepts. A structural equation-type model has been used, but with single item values replacing reflective item aggregates. Tables 3, 4 and 5 show the results of three separate analyses. Two have NetV as an independent variable – one with Satisfy as the dependent variable (paths *Ap1*, *Ap2*, *Ap3* and *Ap4*) and another with Recommend as the dependent variable (paths *Bp5*, *Bp6*, *Bp7* and *Bp8*). AcPsych is not included as it does not represent a *type* of customer value. The third analysis considers Results, Attributes, Price and AcPsych to be elements of NetV (paths *Cp9*, *Cp10*, *Cp11* and *Cp12*). Note that for Figure 5 we were undecided

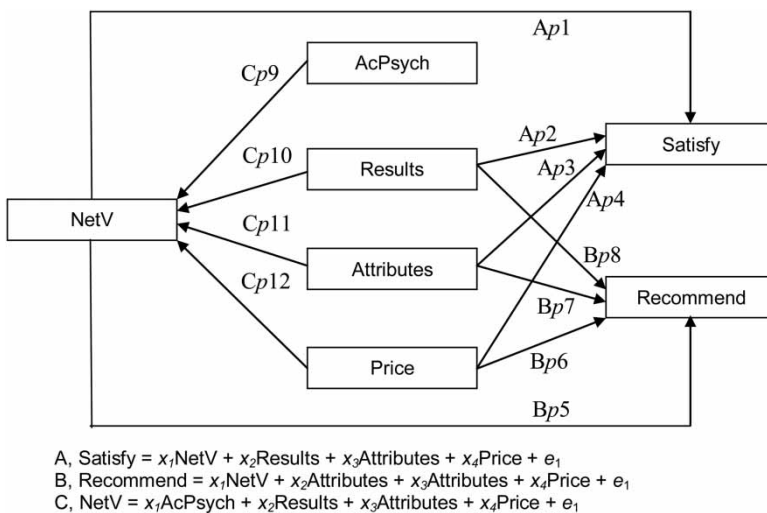


Figure 5. Regression paths for ‘first level’ characteristics.

Table 3. Dependent variable = Satisfy.

Independent variable		All			Home			International		
Path	Name	β	<i>T</i>	Sig	<i>B</i>	<i>T</i>	Sig	β	<i>t</i>	Sig
<i>Ap2</i>	Results	0.140	2.123	0.035	0.111	1.458	0.146	0.209	1.576	0.119
<i>Ap3</i>	Attributes	0.134	2.071	0.039	0.176	2.227	0.027	0.077	0.678	0.500
<i>Ap4</i>	Price	-0.023	-0.357	0.722	-0.128	-1.545	0.124	0.118	1.101	0.274
<i>Ap1</i>	NetV	0.340	5.038	0.000	0.326	3.916	0.000	0.364	3.159	0.002

Table 4. Dependent variable = Recommend.

Independent variable		All			Home			International		
Path	Name	β	<i>T</i>	Sig	β	<i>t</i>	Sig	β	<i>t</i>	Sig
<i>Bp8</i>	Results	0.128	1.935	0.046	0.127	1.705	0.090	0.207	1.390	0.168
<i>Bp7</i>	Attributes	0.095	1.463	0.144	0.142	1.846	0.066	0.054	0.417	0.678
<i>Bp6</i>	Price	0.061	0.927	0.355	-0.018	-0.223	0.824	0.064	0.530	0.598
<i>Bp5</i>	NetV	0.310	4.586	0.000	0.324	3.985	0.000	0.276	2.124	0.037

Table 5. Dependent variable = NetV.

Independent variable		All			Home			International		
Path	Name	β	<i>T</i>	Sig	β	<i>t</i>	Sig	β	<i>t</i>	Sig
<i>Cp10</i>	Results	0.179	3.208	0.001	0.109	1.695	0.092	0.348	2.929	0.004
<i>Cp11</i>	Attributes	0.144	2.664	0.008	0.148	2.249	0.026	0.092	0.889	0.377
<i>Cp12</i>	Price	0.345	6.350	0.000	0.452	7.067	0.000	0.127	1.237	0.220
<i>Cp9</i>	AcPsych	0.171	3.248	0.001	0.097	1.607	0.110	0.262	2.475	0.015

whether to identify variables as exogenous or endogenous. From one perspective each is characterised by just one item, but each actually represents an infinite number of cues that can be interpreted by respondents in a unique, personally meaningful, way.

Discussion

The results give rise to a number of interesting implications. First, referring to Tables 3 and 4, it is apparent that of the four customer value types considered, only NetV has a strong co-relational association with Recommend and/or overall Satisfaction ($p = .05$). Considering different cohorts, Attributes are significant for home students in respect of Satisfaction, but no other significant relationships exist. This appears to demonstrate that a full consideration of all value-determining factors is necessary to maximise understanding of the relationship between student value and key attitude indicators,

Satisfaction and Recommend. Although a review of the literature suggests that the majority of extant value measures are either ‘value for money’ or ‘attributes’ dominant, and that the canonical service-dominant logic literature (e.g. Vargo and Lusch 2004, 2008) invokes a benefits-dominant view on value, our research implies that a more comprehensive perspective – taking more account of outcomes and acquisition and relationship costs (addressed only rarely in academic research) – is more appropriate.

Given that a comprehensive view on student value appears to provide a better guide to attitude than other, partial, constructs, we were interested to discover which of the four NetV elements had the greatest impact (see Table 5). When considering all students, all factors appeared significant ($p = .05$) using β as an indicator, but with Price dominating. After Price was Results, then AcPsych – with Attributes the least influential, implying the relative importance of both outcomes and indirect sacrifices, and the relative *non*-importance of service attributes. When considering students as two groups, though – and as with Figure 4 and Table 2 – results were much different. For home students Price remained key, but for international students Results was most important, with AcPsych also well-represented. For this group Attributes, again, were of least importance and Price, too, appeared not central to concerns. Interestingly, though, for home students attributes were of secondary importance whilst neither Results nor AcPsych were significant. This implies a substantive difference in the way the two groups construe value.

Many other researchers have looked to find a causal and/or relational link between value and satisfaction and/or loyalty. Results have been mixed; primarily because both dependent and independent variables tend to be specified differently (particularly value), or because there are conditional/contingent variations in context, time, response group or study objectives. Consequently, between-study comparisons are not easy to make. For example, Alves and Raposo (2007) – in a study of undergraduate students in Portugal – established a β of 0.16 between a global measure of value and word of mouth (analogous to ‘Recommend’) and 0.42 between value and satisfaction. Their student value measure was uni-dimensional (but less content rich than our NetV measure), and, thus, did not distinguish between components of value and satisfaction and/or loyalty. By contrast, in the context of British postgraduate business students, Ledden and Kalafatis (2010) investigated relationships between student value and satisfaction (only), but across a wide range of value facets; they did not, though, utilise a global measure. β s varied between -0.230 (monetary sacrifice) and 0.42 (emotional benefits), causing the authors to emphasise the ‘idiosyncratic’ nature of student value and the need for this to be evaluated at a ‘disaggregated’ level. Our study confirms that different value components (and in our case, different conceptualisations, too) impact outcomes differently, but also demonstrates that an aggregated/global measure is the most reliable of all indicators, provided (and only when) it is comprehensively specified.

Comparison between our results and others concerning the home/international dyad proved similarly problematic. We encountered studies addressing international students in numerous contexts, but, as with Paswan and Ganesh (2009); Cubillo, Sánchez and Cerviño (2006) and Arambawela, Hall, and Zuhair (2006), home students were not assessed. Evidence from comparative studies in other non-marketing fields, though, suggest that a relatively hostile and/or challenging environment exists for international students. Homesickness (Poyrazli and Lopez 2007), lack of social support (Leder and Forgasz 2004; Grayson 2008), and language (Rangvid 2010; Tian and Lowe 2009) – particularly for Asian students who, according to Morrison, et al. (2005) perform

less well (at least in the UK) than students from other backgrounds – are dominant themes, and those objects occurring in the right-hand column of the acquisition and relationship cost quadrant of Figure 3 tend to loom large; for home students, though, this applies far less. These studies also imply that outcomes (especially those in the right-hand column of our results quadrant) have high relative importance for international students, and our empirical results support this.

Conclusions

This article contributes to knowledge in a number of ways. First, following a comprehensive literature review concerning student sentiment and the university experience, we found that the same degree of theoretical and operational diversity encountered in other competitive contexts applies also in higher education. We noted, too, how associated constructs – primarily service quality and satisfaction – are frequently conflated within the value domain.

Second, following a discussion of extant approaches to customer value measurement we proposed a novel alternative, beginning with a simple, but all-encompassing, model that characterised value (at the first level of abstraction) as a function of results for the customer, service attributes, price and acquisition and relationship costs. Coincidentally, this also allowed us to consider the relevance of different customer value concepts, consistent with Woodall (2003). For the next level of abstraction we eschewed the conventions of establishing factor/item structure via reflective indicators, and, instead, allowed students to embody their own value perspectives in a dynamic and self-representing way. We operationalised this quantitatively via single-item measures, using Reichheld's (2003) 'one question' approach, and caused students to 'make sense' of value, free of temporal and content constraints. This provided for a unique combination of parsimony at the first level of abstraction (facilitating performance benchmarking on key/meaningful value indicators: value for money, outcomes, attributes, acquisition and relationship costs, and also global/net value), and richness/complexity at subsequent levels of abstraction (for identifying actionable improvement opportunities). Our technique delivers both qualitative *and* quantitative outputs, and requires minimal advance preparation. Uniquely, it provides for the evaluation of value perspectives that are coincidentally customised, expeditious, authentic *and* comprehensive.

Initially this method allowed us to identify 'objects', both benefits and sacrifices, that were important to students – both in an 'ideal' but, more importantly, cohort-specific manner. Third, therefore, our study highlights the range and diversity of student concerns that apply in a highly complex service context (see Figure 3) and demonstrates how the full panoply of objects likely to influence student value might be surfaced. We recommend the use of a simple 'value equation' approach for other contexts within the highly diverse higher education sector – and, indeed, for other complex services too.

Fourth, our results show that different student value concepts provide for different readings of student sentiment, but that it is the most comprehensively inclusive of these (net value) that offers the best potential for benchmarking. We have found no other study (in higher education or any other service context) providing similar comparisons, and this is, therefore, a significant new finding. Our study suggests that full representation of both sacrifice and benefit are important to a meaningful understanding of customer/student value and that, in higher education at least, sacrifice is perhaps more influential than its counterpart. As most experience-related study tends to focus on

benefits, this is also an important finding, and confirms Grönroos' (1997) belief that negative aspects of value demand, perhaps, the greatest attention.

Finally, we found that home and international students construe value in distinctly different ways; for home students Net Value was primarily a trade off between price and attributes, whilst for international students a balance of results for the customer (outcomes) and acquisition/relationship costs was of more relevance. We found, too, that international students found less 'value' than home students, generally, in their study environment, but, also, that it was largely too much sacrifice, rather than a lack of benefits, that mattered. Studies comparing home and international students are rare in the higher education marketing field, though our results confirm, empirically, implications from other fields.

Limitations and directions for further research

Our study contributes to understanding in both higher education and marketing, but we recognise limitations in both process and outcome. First, although we believe our 'one question' approach provides for a more dynamic and authentic evaluation of student value than does conventional scaling, this is yet to be verified empirically. It is perhaps unlikely we could draw any absolute conclusions about the relative merits of the two, though, as overall objectives – flexibility versus consistency – differ; but empirical comparison would be useful. We would still maintain, though, that quantitative methods are less effective at identifying improvement opportunities than are qualitative techniques.

It would also, clearly, be useful to repeat our study in other institutions to ascertain whether outcomes hold beyond the school, and to establish whether, in our own context, further segmentation of either the home or international groups might reveal further cultural or socio-economic insights – or, even, suggest some bias in our results. It is worth noting, too, that our study focused entirely on intra/post-consumption experiences and that it was also undertaken before variable tuition fees were introduced into the United Kingdom. Student value is now an even more complex phenomenon, and perspectives that directly invoke considerations of price, and the various ways in which this might be construed, will, undoubtedly, have a greater impact – on both intention to purchase (not fully considered in this study) and intention to recommend – than previously understood. There will, consequently, be even more incentive for both vice-chancellors and academics to re-consider the appropriateness of using the 'student as consumer' metaphor, and for researchers to find out more about its relevance to the field of higher education.

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