

## **BAB V**

### **PENUTUP**

#### **5.1. Pendahuluan**

Dalam bab ini akan dibahas mengenai kesimpulan dari hasil penelitian yang dilakukan, implikasi manajerial yang berguna bagi pihak-pihak yang terkait dengan vending machine, keterbatasan penelitian, dan saran untuk penelitian selanjutnya.

#### **5.2. Kesimpulan**

Setelah melakukan serangkaian analisis pada penelitian mengenai pengalaman berbelanja konsumen pada yipu yipu vending machine, maka disimpulkan sebanyak 12 poin sebagai berikut :

1. Keterlibatan konsumen terhadap vending machine yipu yipu cukup tinggi yaitu di angka 5,76 dari angka maksimal 7.
2. Evaluasi konsumen terhadap pelayanan vending machine yipu yipu cukup baik dan positif dengan nilai rata-rata sebesar 5,97 dan 6,06 dari angka maksimal 7.
  - a. Pada pertanyaan terbuka, 3 poin evaluasi paling banyak dari konsumen adalah perihal: kepraktisan, nilai manfaat, dan faktor lokasi.
  - b. Pada pertanyaan pilihan, 3 poin evaluasi paling banyak dari konsumen adalah perihal: area tempat vending machine yang bersih, produk yang diujakan di vending machine segar, dan varian rasa yang baik.

3. Kepuasan/ketidakpuasan konsumen terhadap pelayanan vending machine yipu yipu
  - a. Tingkat kepuasan konsumen terhadap pelayanan vending machine yipu yipu sebesar 5,2 dari angka maksimal 7, yang artinya konsumen sedikit lebih puas terhadap pengalaman berbelanja menggunakan vending machine yipu yipu
  - b. Perbandingan tingkat kepuasan konsumen antara vending machine yipu yipu dan vending machine lainnya tidak signifikan atau dengan kata lain hampir sama.
  - c. Perbandingan tingkat kepuasan konsumen antara vending machine yipu yipu dengan toko ritel pada umumnya memberikan hasil sebesar 5,4. Angka tersebut berarti pengalaman berbelanja konsumen terhadap vending machine yipu yipu agak baik terhadap pengalaman berbelanja di toko ritel biasa.
  - d. Pengalaman yang tidak memuaskan konsumen terhadap vending machine yipu yipu antara lain berkaitan dengan alat pembayaran dan alat pengembalian uang, sistem vending machine dan citra rasa minuman. permasalahan dengan alat pembayaran dan pengembalian uang mendominasi sebagian dari penyebab ketidakpuasan konsumen.
  - e. Status emosional konsumen ketika menghadapi kegagalan pelayanan umumnya sedikit tidak frustrasi dan tidak marah.

4. Usulan-usulan dari konsumen perihal pengembangan vending machine kedepannya adalah berupa: penambahan varian rasa minuman, alat pembayaran & pengembalian yang lebih baik.
5. Keluhan-keluhan konsumen dan cara konsumen menangani keluhan
  - a. Tindakan yang banyak diambil konsumen ketika mengalami situasi vending machine bermasalah adalah (tiga pilihan terbanyak): berbicara pada petugas di sekitar (44,97 %), telepon/menghubungi perusahaan untuk menyampaikan keluhan (18,34 %), dan tidak melakukan apa-apa (9,47 %).
  - b. Alasan konsumen tidak ingin menghubungi customer service ketika mengalami situasi vending machine bermasalah adalah: repot, malas, tidak ada waktu (40,74%); Lapangan/Legowo(14,81%); Faktor ada petugas di lokasi (22,22%); dan faktor-faktor lainnya (22,22%).
  - c. Kompensasi yang diinginkan konsumen ketika mengalami situasi vending machine bermasalah adalah(dari urutan terbesar): uang kembali, refund, cash back (31,40%); diganti minumannya (20,93%); uang kembali atau bonus minuman gratis (16,28%); uang kembali dan bonus minuman gratis (12,79%); meminta vending machine diperbaiki(10,47%); dan faktorlain-lain(8,14 %).

### 5.3. Implikasi Manajerial

Dalam penelitian ini ditemukan beberapa hasil penelitian yang dapat memberikan kontribusi terhadap pihak-pihak yang terkait dengan vending

machine pada umumnya, dan vending machine yipu yipu pada khususnya. Hasil temuan ini berguna untuk evaluasi dan pengembangan vending machine kedepannya. Dari kesimpulan diatas, dapat diketahui bagaimana tanggapan konsumen terhadap keberadaan vending machine yipu yipu. Konsumen juga mengevaluasi tentang pelayanan vending machine yipu-yipu, baik berupa pujian, kritikan, dan usulan-usulan pengembangan kedepannya. Dari penelitian ini dapat diketahui juga perilaku konsumen ketika mengalami kegagalan pelayanan dari vending machine yipu yipu dan harapan/keinginan konsumen ketika mengalami situasi tersebut.

#### **5.4. Keterbatasan Penelitian**

Dalam penelitian ini, peneliti mengalami keterbatasan yaitu keterbatasan terhadap jumlah sampel yang bisa dikumpulkan yaitu hanya sebanyak 150. Keterbatasan lain yaitu penelitian ini dilakukan hanya pada yipu yipu vending machine dan terbatas pada kota Yogyakarta sehingga hasilnya belum tentu mencerminkan penggunaan vending machine di Indonesia.

#### **5.5. Saran untuk Penelitian Selanjutnya**

Adapun beberapa saran untuk penelitian selanjutnya adalah sebagai berikut:

1. Penelitian mengenai topik serupa namun pada lokasi yang berbeda, sehingga dapat diperoleh suatu perbandingan dan telaah yang lebih mendalam seputar industri vending machine. Penelitian selanjutnya dapat dilakukan dilokasi



yang berbeda seperti: Lokasi pabrik, Stasiun, Bandara, dan tempat-tempat lainnya.

2. Penelitian lebih lanjut bisa dilakukan untuk topik-topik terkait, seperti: “Service Failure” dan “Service Recovery” pada vending machine.



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## LAMPIRAN

## Kuesioner

Dalam rangka meningkatkan pelayanan Vending Machine yipu yipu, kami ingin menanyakan tanggapan saudara/i terhadap keberadaan vending machine "yipu yipu" pada Kampus III Universitas Atma Jaya Yogyakarta.

### A. Secara umum, saya menganggap Vending machine yipu yipu :

- |   |   |   |   |   |   |   |   |                                   |
|---|---|---|---|---|---|---|---|-----------------------------------|
| 1. Tidak Berguna/ <i>useless</i>                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Berguna/ <i>Useful</i>            |
| 2. Tidak penting/ <i>unimportant</i>                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Penting/ <i>Important</i>         |
| 3. Tidak bermanfaat/ <i>Not Beneficial</i>              | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Bermanfaat/ <i>Beneficial</i>     |
| 4. Tidak berarti untuk saya/ <i>Means nothing to me</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Berarti/ <i>Means a lot to me</i> |

5. Rata-rata, berapa kali Anda menggunakan Vending machine yipu yipu dalam 1 minggu ? \_\_\_\_\_

1      2      3      4      5      6      7      kali

6. Urutkan produk-produk di bawah ini, dari yang paling Anda inginkan untuk tersedia di Vending machine yipu yipu. Tuliskan angka 1 pada tempat yang tersedia di depan produk-produk berikut ini yang paling Anda inginkan. Tulis angka 2 untuk urutan kedua, dan seterusnya.

\_\_\_ Minuman Kopi      \_\_\_ Minuman Teh      \_\_\_ Minuman Coklat      \_\_\_ Minuman Jus

\_\_\_ Minuman Karbonasi      \_\_\_ Lain-lain (Minuman : .....)

7. Bagaimana Anda mengevaluasi Vending machine yipu yipu yang beroperasi di kampus ?

Tidak baik      1      2      3      4      5      6      7      Baik

Negatif      1      2      3      4      5      6      7      Positif

Alasan : .....

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**B. Di bawah ini adalah pernyataan mengenai pelayanan Vending machine yipu yipu di kampus. Mohon lingkarkan skala angka yang ada di bawah menurut Anda yang paling cocok.**

- Lokasi Vending machine yipu yipu \_\_\_\_\_  
Mudah terjangkau 1      2      3      4      5      6      7      Sulit terjangkau
- Area tempat Vending machine yipu yipu diletakkan \_\_\_\_\_  
Bersih 1      2      3      4      5      6      7      Kotor
- Harga produk yang dijual di Vending machine yipu yipu \_\_\_\_\_  
Murah 1      2      3      4      5      6      7      Mahal
- Pilihan kategori (jenis minuman) produk yang tersedia di vending machine yipu yipu \_\_\_\_\_  
Beragam 1      2      3      4      5      6      7      Tidak beragam
- Secara umum, varian (rasa) produk yang tersedia \_\_\_\_\_  
Baik sekali 1      2      3      4      5      6      7      Buruk sekali
- Produk yang dijual di Vending machine yipu yipu \_\_\_\_\_

- |       |   |   |   |   |   |   |   |             |
|-------|---|---|---|---|---|---|---|-------------|
| Segar | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Tidak Segar |
|-------|---|---|---|---|---|---|---|-------------|
7. Vending machine yipu yipu \_\_\_\_ berfungsi sebagaimana mestinya  
 Selalu 1 2 3 4 5 6 7 Tidak pernah
8. Alat Penerimaan uang \_\_\_\_ berfungsi dengan baik  
 Selalu 1 2 3 4 5 6 7 Tidak pernah
9. Alat pengembalian uang \_\_\_\_ berfungsi dengan baik  
 Selalu 1 2 3 4 5 6 7 Tidak pernah
10. Informasi nutrisi pada produk yang diujakan di vending machine \_\_\_\_ mudah dibaca  
 Mudah 1 2 3 4 5 6 7 Sulit
11. Keamanan di area Vending machine yipu yipu \_\_\_\_  
 Bagus 1 2 3 4 5 6 7 Buruk
12. Kemudahan untuk menyampaikan keluhan \_\_\_\_  
 Mudah 1 2 3 4 5 6 7 Sulit
13. Secara keseluruhan, seberapa besar puas atau tidak puas Anda terhadap pengalaman menggunakan **Vending machine yipu yipu** ?  
 Sangat tidak puas 1 2 3 4 5 6 7 Sangat puas
14. Secara keseluruhan, seberapa besar puas atau tidak puas Anda terhadap pengalaman menggunakan **Vending machine lainnya** ?  
 Sangat tidak puas 1 2 3 4 5 6 7 Sangat puas
15. Bagaimana penilaian Anda terhadap pengalaman berbelanja Anda dengan Vending machine yipu yipu dibandingkan dengan pengalaman berbelanja di toko ritel biasa ?
- |                  |             |            |           |           |            |                 |
|------------------|-------------|------------|-----------|-----------|------------|-----------------|
| 1                | 2           | 3          | 4         | 5         | 6          | 7               |
| Jauh lebih buruk | lebih buruk | agak buruk | sama saja | agak baik | lebih baik | jauh lebih baik |

**C. Isilah pertanyaan berikut ini :**

1. Apa peningkatan pada Vending machine yipu yipu yang akan Anda usulkan supaya lebih baik ? berikan beberapa usulan jika Anda memilikinya.

.....

.....

.....

2. Apakah Anda memiliki pengalaman buruk selama berinteraksi dengan **Vending machine yipu yipu** ? Bila pernah, mohon diceritakan secara detil.

.....

.....

.....

.....

3. Apakah Anda memiliki pengalaman buruk selama berinteraksi dengan **Vending machine lainnya** ? Bila pernah, mohon diceritakan secara detil.

.....

.....

.....

.....

4. Apa yang Anda rasakan ketika menghadapi situasi tersebut ?

Sangat Frustrasi	1	2	3	4	5	6	7	Tidak Frustrasi
Sangat Marah	1	2	3	4	5	6	7	Tidak Marah

**Bayangkan, suatu ketika Anda menggunakan Vending machine yipu yipu, kemudian Vending machine yipu yipu mengalami kerusakan, misalnya : Uang sudah dimasukkan, namun minuman tidak keluar.**

5. Apa yang akan Anda lakukan menghadapi situasi tersebut ?
- \_\_\_ Tidak melakukan apa-apa
  - \_\_\_ Memukul vending machine karena frustrasi atau marah
  - \_\_\_ Membicarakan kejadian ini kepada orang lain dan mengajak waspada
  - \_\_\_ Berhenti menggunakan vending machine yang menyebabkan kesulitan
  - \_\_\_ Menulis catatan di vending machine yang memperingatkan orang lain
  - \_\_\_ Berbicara pada petugas di sekitar
  - \_\_\_ Menulis dan meminta refund dari perusahaan
  - \_\_\_ Telepon/menghubungi perusahaan untuk menyampaikan keluhan
6. Apakah Anda akan menghubungi customer service/nomor telepon yang tertera di Vending machine yipu yipu ?
- a. Ya                      b. Tidak

Alasan : .....

.....

7. Apa kompensasi yang Anda inginkan jika Anda mengalami kondisi dirugikan akibat dari pelayanan Vending machine yipu yipu. (jawaban bisa lebih dari 1)
- a. ....
- b. ....
- c. ....

Informasi yang Anda berikan akan menolong kami untuk memahami hasil dari penelitian ini lebih baik. Data yang Anda isi akan dijamin kerahasiaannya.

Nama/inisial :

Usia :

Pekerjaan :              a. Mahasiswa              b. Lain-lain : .....

Jenis kelamin :              a. Pria              b. Wanita

No	A												B															C				
	1	2	3	4	5	6						7		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	4		5	6
						1	2	3	4	5	6	a	b																a	b		
1	6	6	6	6	3	3	2	1	4	5	1	7	7	1	1	1	2	1	1	2	2	2	4	1	1	7	5	6	0		f, h	1
2	7	7	7	6	4	3	2	1	5	4	6	6	6	3	4	4	5	4	3	4	5	4	4	4	5	5	5	5	0		a,	2
3	6	6	6	6	2	2	3	1	4	5	0	7	7	2	2	4	2	2	2	2	3	4	2	2	2	2	6	6	0	6	f,	2
4	7	6	7	6	1	4	2	1	3	5	0	7	7	1	1	1	3	1	1	1	3	3	7	1	1	7	7	7	7	7	f,	2
5	7	6	6	6	1	1	4	2	3	5	0	7	7	1	1	2	3	2	1	1	2	4	7	1	1	7	7	6	7	7	f,	2
6	6	5	5	5	3	5	1	2	2	4	6	5	5	2	2	2	2	2	2	2	4	4	4	2	2	2	4	4	0		f,	2
7	6	6	6	5	1	2	3	1	4	5	0	7	7	3	2	4	4	3	4	4	4	3	3	3	4	3	5	6	6	6	c, f	2
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15	7	7	7	7	3	0	7	0	0	0	0	7	7	1	1	1	1	1	1	1	1	1	2	1	4	7	7	7	0	0	e, f	1
16	5	0	0	0	1	2	3	1	4	5	0	7	7	1	3	5	3	3	3	3	1	3	5	3	5	6	4	4	4	4	g,	2
17	7	7	7	7	2	1	3	2	4	0	0	7	7	1	1	1	1	1	1	1	1	1	1	1	1	7	0	7	7	7	e,	1
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19	6	6	6	5	1	2	1	5	3	4	0	6	6	2	2	3	2	2	2	2	2	2	2	2	2	6	6	6	0		c, f	2
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21	6	5	6	5	4	2	1	0	0	0	0	6	6	2	1	3	2	2	2	2	1	1	2	3	2	6	3	6	4	4	h,	1
22	5	6	5	6	1	4	2	3	1	5	6	5	5	5	2	2	3	3	3	3	3	3	6	4	4	5	7	4	6	6	b,	2
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24	6	5	6	5	1	4	5	1	2	3	0	6	6	1	1	2	3	3	2	3	2	2	1	2	2	5	5	5	6	0	c, d,f	2
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28	5	4	5	4	2	3	2	1	4	5	0	3	5	2	1	1	4	4	1	4	2	2	5	5	1	4	4	5	7	7	f,		2
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31	6	4	6	7	1	0	3	1	2	0	0	6	6	1	1	2	3	2	2	2	3	3	3	1	3	1	3	5	6	6	f,		1
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35	0	6	0	0	2	5	2	1	3	4	0	6	5	2	2	2	1	1	1	4	3	4	5	1	1	5	5	5	0		e,		1
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37	4	4	4	4	1	5	3	4	1	2	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0		g,	h	0
38	7	0	0	0	5	1	0	4	0	0	0	5	0	1	1	1	1	1	1	3	2	3	1	3	2	6	6	6	0		f,		1
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40	7	7	6	7	1	1	5	2	4	3	0	7	7	6	1	5	2	1	1	1	1	1	1	2	4	6	5	7	6	6	f,		1
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43	7	6	7	6	0	5	1	2	3	4	0	6	7	1	1	3	2	2	2	2	2	2	2	2	2	6	6	7	7	7	f,	h	1
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45	7	6	6	4	4	2	0	1	0	0	0	6	6	2	4	3	3	3	2	2	3	3	3	1	2	5	5	6	7	7	h,		1
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47	3	3	3	3	5	2	1	4	5	3	6	4	4	3	3	3	3	3	3	3	3	2	2	2	2	4	4	4	4	4	h,		1
48	6	5	6	6	6	0	0	2	0	0	1	6	6	4	1	2	2	4	1	1	3	4	4	2	4	7	6	6	0		f,		1
49	5	5	4	5	1	3	5	2	1	4	0	5	5	1	1	3	1	1	1	2	2	2	1	1	1	2	5	6	0		0		0
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52	6	5	6	5	6	1	2	3	5	4	6	6	7	6	4	5	1	4	3	2	3	3	2	2	3	6	5	5	7	7	g,		1
53	7	6	6	5	1	4	1	2	3	5	0	6	6	7	7	5	4	3	3	3	2	2	7	2	3	6	6	6	0		f,		1
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58	7	6	7	5	3	2	5	1	3	4	0	6	6	1	2	4	3	3	2	3	1	2	3	2	2	6	6	7	1	3	c,	f	1

59	7	6	7	6	2	1	4	2	3	5	6	7	7	1	1	4	1	1	1	1	1	4	1	1	4	7	7	6	0		0		0
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61	7	7	7	7	1	6	2	1	5	4	3	5	6	7	6	4	1	1	1	1	4	5	1	7	7	4	4	4	4	4	h,		1
62	5	0	7	0	2	3	4	1	2	5	0	7	7	1	1	1	3	4	1	2	1	1	2	1	1	7	7	4	7	7	f,	g	1
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64	7	7	7	7	2	0	1	2	3	0	0	7	7	3	3	3	2	1	2	1	1	1	1	1	1	7	7	7	0	0	0		1
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68	7	6	1	1	2	4	3	1	2	5	0	6	0	1	1	2	1	1	1	1	2	2	2	1	1	7	6	5	0		f,		2
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70	7	6	7	6	3	1	2	4	3	5	0	6	6	2	2	3	3	3	3	2	2	2	3	3	4	5	4	5	5	4	a,		2
71	7	6	6	6	3	4	2	1	3	5	0	7	7	1	1	4	1	3	4	2	3	0	6	5	5	3	5	6	7	7	c,	f	1
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73	6	6	7	6	1	5	3	2	4	1	6	7	7	6	6	4	3	4	1	2	4	4	1	1	4	7	5	7	0	0	0		0
74	0	0	3	0	1	4	2	1	3	5	0	4	0	2	4	5	3	5	2	0	3	5	4	5	4	6	5	4	0	0	h,		1
75	4	3	5	3	1	5	2	3	1	4	0	6	7	1	2	1	5	3	3	1	3	2	7	3	2	7	7	5	0	0	c,	f	2
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86	7	7	7	7	5	2	1	0	0	0	0	7	7	1	2	2	1	2	3	2	2	2	3	1	2	6	6	4	0	0	a,	g	2
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91	5	6	7	5	2	2	1	3	4	5	0	5	5	4	4	3	4	4	3	4	5	5	3	3	6	4	4	5	4	4	f,	g	1
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103	7	7	7	7	3	5	2	1	3	4	0	7	7	1	1	3	1	2	2	1	3	1	3	3	2	2	4	6	6	6	f,	h	1
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119	6	6	6	6	2	1	5	2	3	4	0	0	0	2	2	6	4	4	3	4	4	4	4	3	5	6	6	6	0	0	f,		2
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121	6	1	6	1	1	3	2	1	4	5	0	6	6	4	2	4	2	2	3	3	2	2	4	2	4	6	6	5	5	5	h,		1
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138	0	0	7	0	1	1	2	4	3	5	0	7	7	1	1	5	4	2	2	1	2	4	4	5	2	7	6	5	7	5	f,		2
139	6	5	5	5	4	1	0	2	0	0	0	6	6	2	1	1	1	1	1	2	1	1	1	1	3	6	6	4	0	0	h,		1
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146	6	6	6	5	2	2	3	1	5	4	0	5	5	2	2	3	3	4	3	4	5	4	5	5	6	4	4	5	7	7	h,		1
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149	5	4	5	4	2	4	2	3	1	5	0	4	4	3	5	2	3	4	3	4	2	4	4	5	5	5	5	5	0	0	f,	h	1
150	5	3	6	3	3	4	3	1	2	5	0	3	4	3	1	2	6	4	5	6	3	4	2	3	6	3	6	4	0	0	f,		1

No	7	c.1	c.2	c.3	c.6	c.7	usia	pekerjaan	jenis kelamin
	bagaimana anda mengevaluasi vending machine yipu yipu yang beroperasi di kampus	apa peningkatan pada vending machine yipu yipu yang akan anda usulkan supaya lebih baik ?	apakah anda memiliki pengalaman buruk selama berinteraksi dengan vending machine yipu yipu ?	apakah anda memiliki pengalaman buruk selama berinteraksi dengan vending machine lainnya ?	apakah anda akan menghubungi customer service/nomor telepon yang tertera di vending machine yipu yipu ?	kompensasi yang diinginkan			
1	untuk mendapatkan varian dari minuman ga perlu keluar kampus	uang kembalian jangan recehan	tidak pernah	tidak pernah	supaya bisa diperbaiki	0	19	1	2
2	0	0	0	0	tidak pernah	0	0	0	0
3	bermanfaat karena untuk membeli minuman kita ga perlu jauh jauh	bagian alat pembayaran, seringkali uang susah di terima	tidak pernah	0	tidak sempat	mesin diperbaiki supaya lebih bermanfaat	19	1	2
4	mudah dioperasikan dan ada masnya yang membantu	variasi minuman yang sehat (jus, dsb)	tidak pernah	0	ada masnya yang jaga	cash back	20	1	2
5	lebih memudahkan dalam membeli minuman dan bermanfaat bagi sosial	lebih bervariasi untuk minumannya	tidak pernah	0	kan ada petugasnya	cash back	20	1	2
6	karena vending machine lumayan berguna	alat penerima uang supaya bisa lebih baik	tidak pernah	0	0	0	18	1	2
7	karena bisa beli minuman dalam keadaan mepet	minuman lebih komplit	0	0	jika tidak ada kepentingan	minuman gratis	20	1	1

8	karena pengoperasian bagus dan penjaganya ramah	lebih cepat pengoperasiannya	0	0	0	uang kembali	20	1	2
9	karena memudahkan mahasiswa untuk memperoleh minuman tanpa harus sulit sulit mencari keluar kampus	0	uang yang dimasukkan tidak dapat terbaca jadi harus di ulang ulang	0	agar mesin segera diperbaiki dan tidak merugikan orang lain	0	19	1	1
10	karena mudah digunakan	mungkin alat yang digunakan harus lebih praktis, seperti gula yang diharapkan, biar ada khas rasa manisnya	0	0	untuk memberitahukan kalau mesin tersebut rusak, dan meminta perbaikan secepatnya	uang dikembalikan	20	1	2
11	rasanya enak dan praktis. Serta saya kagum dengan konsepnya	mesin dibuat lebih otomatis lagi, terutama gelasnya	tidak	0	agar pelayanan lebih baik lagi	pengembalian uang	19	1	1
12	masih sering bermasalah dalam pengoperasiannya	lebih di upgrade machine vendingnya	pernah, cup tidak keluar pada saat minumannya keluar	0	agar untuk peningkatan dari machine vending	uang kembali dan diberi bonus minuman lain	19	1	1
13	0	penggunaan mesin yang lebih modern	mesin penerimaan uang tidak jalan	0	0	pengembalian uang 100 %	21	1	1
14	bagus	supaya minuman makin baik dan lebih bersih	pernah, saya pesan milk tea tapi yang keluar hanya tea	ada semutnya, tempatnya tidak selalu dibersihkan, dan kita tidak tahu apa saja yang ada di dalam mesin	ya udalah egak pa pa	lebih diperbaiki lagi karena gimanaapun juga Cuma mesin	18	1	2

15	sangat memudahkan mahasiswa untuk mendapatkan minuman	pengembalian jangan receh semua	gula kurang kerasa	0	memang itu langkah pertama yang baik	penggantian minuman	18	1	2
16	0	banyak varian rasa harga diturunkan supaya banyak yang beli	0	0	malas	ganti rugi	18	1	2
17	sudah bisa memberi kembalian, mesin lebih cantik, semua menjadi rapi	sudah lebih baik. Sudah ada mesin kembalian. Tadi mau usul itu, tapi sudah diberi, bagus	selama ini baik	0	jika ada hal yang tidak berkenan, saya akan melaporkan kepada cs	peningkatan yang lebih baik saja	19	1	2
18	lebih praktis apabila membeli minuman	menerima uang recehan dan segala macam jenis uang gampang diterima	uangnya terlalu jelek, sehingga tidak diterima oleh mesin	0	untuk memperbaiki kinerja mesin, sehingga lebih nyaman digunakan	memberi minuman gratis apabila tidak mendapat refund	20	1	2
19	mudah digunakan tapi pertama kali make bingung sama ukuran gulanya seberapa manis	0	0	0	0	ganti rugi	22	2	1
20	sugar bisa diatur persennya	0	0	0	0	refund	21	1	2
21	vending machine ini sangat bagus dikampus karena selain cepat, kita tidak perlu repot	0	0	0	agar mesin tersebut dapat diperbaiki dan dapat digunakan kembali	0	22	1	1
22	0	pilihan yang lebih bervariasi	tidak pernah	belum pernah	0	ganti rugi	21	1	1
23	inovasi	0		0	0	0	17	1	2
24	cukup bermanfaat, membantu memberi minuman	produk lebih beragam	terkadang alat untuk memasukan uang sulit digunakan	0	0	ganti rugi	19	1	2



25	baik, tidak terlalu susah untuk mengoperasikan mesin tersebut	dapat memberikan beragam bentuk uang untuk mempermudah pembayaran	0	0	0	diganti sebagaimana mestinya	18	1	2
26	keren, tapi ditambahkan lagi di FTI kalo bisa	tambah di FTI dan seluruh univ atma jaya	0	0	sibuk, tidak banyak waktu	diberi gratis, diberi diskon	18	1	2
27	kadang masih error	kembalian jangan receh	gelas kadang tidak teratur dengan semestinya jadi airnya tumpah	0	0	uang kembali	19	1	2
28	0	kembalian jangan receh	sudah masukan uang, tapi ga bisa diakses	0	ribet	uang kembali	19	1	2
29	lumayan berguna, kalo mau beli minum ga perlu jauh jauh lagi	menu minumannya di tambah	0	0	tidak pernah ada masalah pas beli	0	22	1	2
30	0	0	0	0	0	0	0	0	0
31	pelayanan cepat, penjaganya sendiri baik hati	tambahan variasi rasa perlu di adakan	0	0	supaya pihak yipu yipu bisa segera memperbaiki kerusakan	0	18	1	2
32	0	0	0	0	0	0	0	0	0
33	praktis minumannya	kecepatan penerimaan uang	uang tidak kembali, lama	0	biar diperbaiki	0	22	1	1
34	berguna, tapi waktu malam atau hari sabtu jarang berfungsi	0	0	0	0	0	21	1	2
35	karena selalu ada penjaga petugas yang membantu mengarahkan cara penggunaan vending machine	minuman dibuat lebih bervariasi (ex :minuman rasa buah/jus), sediakan tissue	0	0	supaya problem sekecil apapun dapat segera diatasi	uang kembali, diganti minuman yang baru	21	1	2



36	jika haus bisa beli dan lebih dekat	0	0	0	0	0	0	0	0
37	karena segala yang diciptakan demi kebaikan manusia itu baik	0	0	0	0	0	0	0	0
38	0	dikontrol mesinya 2 x sebulan	0	0	0	0	18	1	2
39	kadang uang yang hendak dimasukkan keluar lagi	uang kembalian jangan recehan/uang koin	0	0	kalo misalnya tidak ada petugas di vending machine	uang kembali	19	1	2
40	karena dapat menyegarkan kita dari kepenatan	minuman di tambah lagi	0	0	agar mesin diperbaiki	0	18	1	1
41	karena melegakan dahaga	0	0	0	0	0	25	1	1
42	karena dapat memudahkan para mahasiswa untuk melepaskan rasa haus	0	0	0	0	0	0	1	1
43	0	bisa dengang pecahan 1000	0	0	agar mesin cepat diperbaiki sehingga bisa berfungsi sebgaimana mestinya	minuman yang dibeli bisa keluar	0	1	2
44	mau ngopy, ngeteh bisa langsung	0	0	0	agar tidak berlaku terhadap orang lain	ganti rugi	22	1	2
45	karena dapat menyediakan minuman secara instan	uang kembalinya berupa uang kertas	0	0	0	refund dari perusahaan	18	1	2
46	yang jelas berguna dan sangat bermanfaat	perbanyak franchise	0	0	tidak suka marah	0	26	1	1

47	0	alat kembalian di perbaharui	tidak ada uang kembali	0	agar tidak terulang	ganti rugi	19	1	2
48	sudah cukup baik, hanya saja terkadang sering error	varian menu	0	0	karena perlu untuk meminta kejelasan	dikembalikan uang	19	1	2
49	0	0	0	0	0	0	0	0	0
50	0	alat kembalian diperbaharui	uang kembalian tidak ada	0	agar tidak terulang lagi	ganti rugi	19	1	2
51	tidak bingung untuk mencari minuman cepat saji	lebih beraneka rasa	0	0	0	0	18	1	1
52	praktis figunakan	lebih strategis posisinya	0	0	meminta perbaikan	refund, gratis minuman	19	1	1
53	baik ndak perlu jauh jauh ke kantin	nilai nutrisinya kok ndak ada, ini ditampilkan, hargnaya mbok di kurangi	0	0	0	ya uang saya kembali	20	1	1
54	karena di kantin kampus tidak ada model kopi seperti jco , dll	harus uang pas saya rasa agak repot deh	esnya kadang macet, hehe, kurang dingin	0	ga tau nomernya	mengadu jika ada petugasnya, ya ikhlaskan saja, toh kerusakan = kecelakaan, yg jelas niat yipu yipu baik	21	1	1
55	sangat baik karna di kampus fasilitas seperti ini sangat dibutuhkan	sudah baik, pertahankan	0	belum pernah	membuang waktu	0	18	1	1
56	0	lebih dirapikan	0	0	0	0	0	0	0

57	memudahkan membeli minuman, terlihat lebih canggih	tampilan lebih menarik, dengan tombol pilihan touch screen/alat alat teknologi yang lain, pilihan minuman yang lebih bervariasi dan murah, alatnya tetap menjaga kebersihan area kampus (sekitar mesin	minuman tidak keluar secara apenuh bahkan hanya air putih saja	0	layanan tidak bebas pulsa jadi malas untuk telepon	mengganti uang, yang dibayar dan diberi gratis minumannya	20	1	2
58	penampilan mesin yang sekarang lebih baik, pengoperasiannya pun jauh lebih baik dari yang dulu, lebih memudahkan kita untuk membeli	menurut saya yang perlu diperhatikan adalah kebersihan, karena untuk produk minuman kebersihan menjadi sangat penting dan mohon diperhatikan kualitasnya	ya, dulu saya pernah membeli minuman coklat akan tetapi tidak ada coklat yang keluar, yang keluar hanya air putih yang bercampur gula, sehingga saya hanya membayar setengah terlebih tidak ada penjaga disana	0	apabila kesalahan atau kerusakan itu sangat merugikan banyak orang akan lebih baik jika saya memberitahu cs agar kerusakan itu segera diatasi	pengembalian uang, pemberian kejelasan mengenai masalah yang terjadi, yang paling penting segera perbaiki mesin agar korbannya tidak banyak	19	1	2
59	0	menurut saya sudah baik semuanya	0	0	0	0	20	1	2
60	0	banyak varian produk, lebih cepat dalam pembuatan minuman	0	0	0	0	21	1	2
61	0	keamanan	0	0	penting	kembalian uang	19	1	1
62	sudah ada mesin uang nya	varian jenis dan rasa	0	0	jika ada masalah	0	20	1	2
63	0	0	0	0	0	0	18	1	1
64	0	0	0	0	0	0	20	1	2
65	0	supaya lebih diperjelas mengenai instruksinya	pernah bingung	0	0	0	20	1	2

66	0	0	0	0	0	0	20	1	2
67	kalo tidak baik dan negatif, pasti mesin ini ga boleh masuk atma jaya	berikan saja daftar detail nutrisi dan minuman, usahakan dibuat menarik tampilannya tapi berupa fakta , tampilan nutrisi berbentuk tabel tidak menarik	0	0	mesin ini digunakan banyak orang	ganti saja uangnya / diganti dengan barang dengan nilai yang sama	20	1	1
68	mahasiswa lebih mudah untuk membeli minuman tanpa harus menyebrang ke minimarket	0	0	0	karena slama ada petugas disekitar mesin, tinggal konsultasi saja	0	19	1	2
69	praktis	mesin kembalian uang kertas, penerimaan uang koin dan nominal uang lainnya , sedotan lebih panjang	jatuhnya gelas tidak pas, sehingga pesanan tumpah dan terkadang gelas double dan pliket	0	0	0	0	0	0
70	0	kebersihan harus tetap dipertahankan	0	0	0	perbaiki vending machine	19	1	2
71	sangat mudah dioperasikan dan lokasinya ada di dalam kampus, mungkin akan lebih menyenangkan kalau tersedia mesin ini di lokasi lokasi lainnya	kecepatan pelayanan	air gulanya belepotan di gelas	0	untuk menginformasikan kerusakan, agar diperbaiki	minuman gratis dengan voucher	22	1	2
72	0	0	0	0	0	0	21	1	2
73	sangat membantu mahasiswa yang kehausan	lebih baik variasi rasa	0	0	0	0	17	1	2

74	masalah sampah, gelas2 yang tidak dipakai terkadang tidak dibuang	varian lebih banyak seperti rasa buah	tidak	0	0	gratis 1 cup	21	1	1
75	memberi pilihan minuman baru buka lebih lama daripada kantin	teh rasa buah buahan, atau variasi jenis teh lain	0	0	masalah teknis adalah normal	permintaan maaf	20	1	2
76	karena dari tata letak sebaiknya diletakkan di tempat yang sering dilewati, kebersihan mesin dijaga	sering dikontrol mesinnya supaya dapat beroperasi dengan baik kebersihannya dijaga , mesin unag di variasikan pecahannya	0	0	jika sedang tidak terburu-buru saya akan menghubungi	perbaikan, pelayanan kepada kostumer yang lebih	20	1	2
77	menunggu lama	lebih cepat	uang sudah masuk, minumannya belum keluar	0	agar dapat diperbaiki	0	21	1	2
78	tapi agak sedikit lama	lebih cepat	sudah masuk uang tapi ga keluar minumannya	uang sudah masuk tapi minumannya belum keluar	agar dapat diperbaiki sehingga yang lain tidak menghadapi hal yang sama	0	19	1	2
79	cukup mudah mengoperasikannya	urutan langkah langkah yang fixed / tidak berubah	sulit memasukkan uang bayar	0	meminta pertanggungjawaban	pengembalian uang, evaluasi kedepan agar lebih baik	20	1	1
80	ringkas, efesien	0	0	0	untuk mempertanggungjawabkan yang yang saya berikan	uang kembali, gratis	21	1	1

81	karena kalau lagi hujan, malas keluar,dekat kita ngak repot repot, cara penggunaan praktis	sebaiknya tidak usah ada pengembalian. Harga dibuat pas saja, kelipatan 2000 atau 5000 saja. Kadang mesin pengembalian tidak berfungsi	mesin pengembalian error, jadi nggak kembali deh	tidak pernah	menanyakan saja gimana seharusnya	diganti lagi lain kali	20	1	2
82	0	bisa terima berbagai uang	0	0	0	0	0	0	0
83	bermanfaat bagi mahasiswa yang mencari minuman dengan cepat apalagi saat hujan	produk lebih beragam dalam citra rasa	0	0	0	0	20	1	2
84	instan memperoleh minuman	tempat naruh uang kurang aman sehingga diberi diberi tempat yang aman, menambahkan variasi minuman	0	0	0	0	21	1	2
85	mudah digunakan dan selalu diarahkan	variasinya dibanyakin dan sedotan lebih panjang	0	0	0	0	21	1	2
86	tidak jauh keluar		0	0	0	0	25	1	1
87	masih yang belum tau cara mengoperasikannya	ditambah varian rasa misalnya jus	0	0	0	dapat gratis	20	1	2
88	0	0	0	0	0	0	0	0	0
89	0	0	0	0	0	0	0	0	0
90	efisien	0	0	0	0	0	0	0	0

91	mudah dan dapat minum dengan cepat	memberikan varian minuman rasa buah	0	0	untuk memastikan keadaan vending machine dan meminta solusi apabila terjadi kesalahan	memberikan pertanggungjawaban kepada konsumen	19	1	2
92	sangat membantu, dan pelayanannya sangat baik	ditambah jenis minumannya	0	0	0	0	18	1	1
93	karna dapat membantu mencari minuman yang cepat dan rasanya bervariasi	menambah variasi minuman	0	0	0	0	21	1	1
94	0	menu varian ditingkatkan lagi	0	0	0	uang dikembali dan diganti minuman lain	20	1	2
95	mengakomodir kebutuhan minuman mahasiswa	semua sudah meningkat dalam pelayanan, kekurangan pada mesin yipu pada waktu sebelumnya, sudah dipersiapkan kembali sehingga lebih nyaman,	0	0	uang sudah saya masukkan, dan minuman tidak keluar	uang kembali	19	1	1
96	mesinnya berfungsi dengan baik	menambah jenis minuman lagi	0	0	0	supaya lebih baik lagi dan kalau ada salah diperbaiki	19	1	2
97	0		0	0	0	0	20	1	2
98	0	sudah perfect	0	0	0	gratis minuman	19	1	2
99	kalau lagi nunggu sesi kuliah bisa duduk di lobby sambil minum	minuman lebih bervariasi lagi	0	0	supaya ada pertanggungjawaban	diganti minumannya	19	1	2

100	0	lebih beragam lagi macamnya	0	0	agar dapat efektif kembali dan tidak merugikan orang lain	memberi yipu yipu gratis	19	1	2
101	0	tidak tau, karena baru sekali mencoba	0	0	karena itu tanggung jawab customer service	ga ada, mencoba ikhlas	19	1	2
102	0	lebih banyak mesin	0	0	merepotkan	diganti uangnya	19	1	2
103	dengan adanya yipu yipu, mahasiswa/i lebih dimudahkan dalam membeli minuman, tidak perlu jauh jauh, sangat efisien	minuman yang tersedia lebih beragam lagi, kalau bisa di setiap lantai ada vending machine yipu2 nya, pasti banyak yang membeli	pernah, ketika dimasukkan uang yang bagus, ternyata tidak masuk, sedangkan ketika masuknya yang kurang bagus, ternyata masuk. Mungkin di alat sensor masih kurang sensitif	0	karena cs akan lebih mengetahui mengenai mesin. Jadi saya akan memutuskan untuk menghubungi terlebih dahulu	uang kembali	18	1	2
104	sangat sangat bermanfaat tidak usa ke kantin yang sesak	hot kurang panas	0	0	0	mesin segera diperbaiki	22	1	1
105	sangat membantu mahasiswa sekaligus memperkenalkan teknologi baru di era modern sekarang ini	menambah varian rasa minuman	0	0	karena ada petugas yang bisa menjelaskan	perbaiki segera	18	1	2
106	yang pertama di ujai+ kualitas vending machine at present is better than at the first time it was launched	uang kembalian jangan receh	tidak sama sekali, alat yipu yipu mudah dioperasikan	0	kalau kerusakan terjadi > 1 x, baru telpn customer service	heaven choco gratis	20	1	1



107	membantu apabila ada mahasiswa yang malas keluar kampus atau hanya ke kampus	0	0	0	0	0	19	1	2
108	mempermudah jika ingin beli minuman tanpa antri dan berdesakkan, cara mengoperasikan mesin juga mudah dilakukan	0	0	0	untuk meminta penjelasan lebih lanjut	refund, ganti produk yang lebih baik	19	1	2
109	dapat memudahkan mahasiswa/i jika mereka ingin mendapatkan minuman, praktis & ekonomis	0	0	0	terlalu berbelit-belit	free drink	25	1	2
110	praktis ekonomis	0	0	0	0	0	25	1	2
111	memberikan kemudahan untuk menyediakan minuman cepat saji	pekerjanya yang melayani diberikan sistem shift 2an	0	0	uang hilang ya udah	uang kembali, atau barang bisa keluar	20	1	2
112	memberi pilihan lain, daripada keluar kampus	masih sering macet mesinnya	pilihan produk ada yang tidak berfungsi	0	0	ganti uang yang dimasukkan	25	1	2
113	tempat strategis, karna menjangkau mahasiswa yang lagi nongkrong di lantai 1 atmajaya kampus 3	uang kembalian kalau bisa seribuan	0	0	agar saya dapat menjelaskan kejadian yang terjadi seperti diatas, sehingga segera dilakukan perbaikan	meminta pengembalian uang	25	2	1

114	jenis yang ditawarkan bervariasi, lokasinya pun sangat strategis karena ditujukan untuk mahasiswa	mesin pengenalan uang lebih ditingkatkan, agar dapat membaca lebih dari mata uang 2000, 5000, dan 10.000, uang kembalian diusahakan dalam bentuk yang kertas, sedotan yang digunakan lebih besar ukuran normal +/- 13 cm	pernah, tetapi jika terlalu mengurangi kenikmatan rasa serta kemudahan mesinnya, yaitu minuman masih belepotan disekitar gelas. Hal ini sangat mengotori tangan konsumen, mungkin bisa diakali dengan menyediakan tissue pada vm yipu2	0	demi kemajuan diatas, serta kepercayaan konsumen terhadap yym	menghubungi owner dan menyampaikan keluhan	24	1	2
115	semakin canggih dan praktis	kembalian jangan uang receh saja tetapi uang kertas sesuai keinginan konsumen	0	0	agar segera ada perbaikan	pengembalian uang	22	1	1
116	minuman yang instan	proses pembuatan minuman diberi kaca	0	1	supaya bisa memperbaiki mesinnya dengan segera	mendapatkan produk double	20	1	1
117	menyediakan minuman yang cepat tanpa jauh2 keluar kampus	0	0	0	supaya cepat dapat diperbaiki mesin tersebut agar bisa digunakan oleh orang lain	bila minuman tidak keluar, meminta uang kembali	18	1	2
118	sedotan kurang panjang dan kurang beragam	sedotan beragam macamnya sesuai panas/dingin	mesin yang lama tidak bisa memberi kembalian	mau beli produk tertentu tapi rasanya malah air putih rasa gula	tidak terpikir	dapat minuman gratis	18	1	2

119	0	sediakan jus alpukat, sedotan panjang dan beragam, sediakan tutup gelas	0	0	terlalu repot	uang kembali saja	18	1	2
120	0	good, lanjutkan	0	0	agar kerusakan cepat diperbaiki	ganti rupiah yang dikeluarkan	21	1	2
121	praktis dalam pilihan untuk diri	selalu berpartisipasi agar mesin tidak kondisi eror	0	0	agar customer service dapat mengecek dengan segera	tukar ganti /exchange dengan apa yang dirugikan	19	1	1
122	0	0	0	0	jika ada masalah pada mesin, dapat langsung dihubungi	0	20	1	1
123	ya cukup membantu dalam operasional pemesanan minuman	diharapkan varian minuman lebih banyak, mesin mudah digunakan	0	0	0	mendapatkan minuman yang dipesan/seharusnya	21	1	2
124	menyediakan banyak alternatif minuman untuk mahasiswa, dan praktis, tidak perlu jauh jauh keluar mencari minum	kembaliannya uang kertas, minumannya lebih banyak (kuantitas)	0	0	0	mendapatkan pesanan yang diharapkan	21	1	1
125	0	saya tak punya usul, yang penting ini sudah baik	0	0	0	0	0	0	0
126	beroperasi 24 jam. Kapan saja kita membutuhkan selalu ada	menambah varian rasa & jenis minuman	0	0	demi kepentingan bersama (pemakai mesin yipu yipu lainnya)	menghubungi petugas sekitar	22	1	1



135	cepat jadi minumannya & enak	uang kembali jika kita lebih membayarnya	0	0	0	minuman dapat diganti	18	1	0
136	karena apabila dalam keadaan haus paling cepat dijangkau ketimbang harus ke kantin	uang kembalian tidak pakai recehan lagi	0	0	supaya cepat diperbaiki	minuman diganti cukup itu saja	19	1	2
137	0	uang kembali tidak receh	ia, esnya ga keluar	0	untuk menyampaikan keluhan	minuman diganti	18	1	2
138	tidak terlalu merepotkan hanya untuk meminum	kebersihan pada bagian penyeduhan,ada baiknya tertutup, konsumen menerima bila elah selesai saja	ya, nominal uang . Saya punya tidak bisa untuk pecahan yang ada	0	belum terlalu mendesak	layanan yang lebih baik kedepannya	25	2	1
139	karena terstruktur dengan baik, dengan adanya layanan cara pembelian	0	0	0	supaya manager bisa memperhatikan kinerja mesin	0	21	1	1
140	karena pelayanan cepat dan mudah praktis	lebih banyak varian	0	0	0	0	20	1	2
141	0	0	0	0	0	0	20	1	2
142	menghemat waktu untuk membeli minuman keluar	0	0	0	0	0	0	0	0
143	karena ada dalam 1 gedung kampus	diletakkan di tiap lantai uajy, pilihan minuman di tambahkan seperti es jeruk	0	0	0	0	24	1	2
144	bisa memberi fasilitas di kampus, kampus lebih asyik	0	0	0	0	0	0	0	0

145	bisa membantu mahasiswa kalau lagi haus, menghemat waktu juga jadi beli minum tidak usah jauh2 sampe keluar kampus		kalau bisa uang kembaliannya jangan recehan tapi uang kertas	0	0	karena ada penjaganya, jadi kita bisa ngomong sama penjaganya tentang keluhan2 thd mesin	ada perbaikan mesin jadi yang dirugikan tidak semakin banyak	19	1	2
146	sering macet		varian minuman yang lebih banyak	0	0	0	dapat minuman gratis dan uang kembali	21	1	2
147	cukup membantu		varian lebih banyak	0	0	perlu agar tau rusak dir	uang kembali dan minu	20	1	1
148	0		0	0	0	0	0	27	1	1
149	0		0	0	0	0	0	21	1	1
150	0		0	0	0	0	0	24	1	2

## **CONSUMERS' EXPERIENCES, OPINIONS, ATTITUDES, SATISFACTION, DISSATISFACTION, AND COMPLAINING BEHAVIOR WITH VENDING MACHINES**

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### **ABSTRACT**

Despite the ever increasing presence and penetration of vending machines into consumers' lives, there have been no studies to date in the marketing and consumer behavior literature that shed light on consumers' experiences and consumption behavior involving vending machines. This study is the first of its kind to report, based on consumer survey data, consumers' usage behavior, and opinions and attitudes toward the services rendered by food and beverage vending machines. Consumer satisfaction/dissatisfaction and complaint behavior are also investigated. The results reveal that consumers consider vending machines as quite useful, beneficial, important, and meaning a lot to them - more so than TV or red wine! However, consumers generally give tepid evaluations about vending machine services, and their level of satisfaction starkly contrasts with their high involvement. Their experience with the vending machine is not up to par with comparable retail store shopping experiences. The inadequate system of requesting refunds and filing complaints, a chronic source of consumer dissatisfaction, emerged as the most serious drawback of vending machine services. Managerial implications of this and other findings, along with future research issues are discussed.

### **INTRODUCTION**

More than two decades ago, Quelch and Takeuchi (1981) predicted that the vending machine would become one of the most important non-store marketing channels. Comparing the two million vending machines as cited in their article at that time, with the more than seven million vending machines in operation in the U.S. currently (Leaner 2002), their prediction has surely materialized. Presently, the vending

machine business is a \$41 billion industry (National Automatic Merchandising Association 2002) and one of the most pervasive retail business forms, though still low-profile.

Vending machines and many consumer products as consumer products have a symbiotic relationship. As more people have joined the workforce during the past several decades and their busy social life increasingly places more value on time and convenience, vending machines have become an indispensable part of many people's daily lives. They offer consumers a variety of products including foods, snacks, beverages, newspapers, cigarettes, laundry products, cosmetics, hosiery, personal care items, postage stamps, contraceptive devices, and even paperbacks and CDs.

Food and beverages account for about 85% of vending machine sales in the U.S., with vending machines accounting for about 20% of soft drink sales (Vending Times 2002). Vending machines also take on an ever-increasing role in serving employees in the workplace in the new economy. Since downsizing and workforce reductions have been accelerating in Corporate America, companies are increasingly reducing and replacing food service facilities and staffs with self-serving vending machines (Leisure Week 1999). Nowadays employees can find at their workplace almost any food and beverage item from pizza to frozen dinners. "Light" entrees, fresh salads, fruits, and dairy products are often part of their canteens and dining facilities.

Given the ever increasing presence and the pervasiveness of vending machines in the lives of consumers, it is surprising that there have been to date no studies in the marketing and consumer behavior literature that shed light on consumers' usage behavior, experiences, opinions, and attitudes, not to mention their satisfaction, dissatisfaction, and complaining behavior, with the vending machine services. This glaring lack

of knowledge about consumer behavior regarding vending machine service is even more surprising, considering the fact that our knowledge and understanding of consumer behavior in the retailing field have dramatically increased during the past two decades. The present study is conducted as a first step to fill such a gap in consumer behavior and non-store retailing literature.

## VENDING MACHINE BUSINESS

### The Value of Vending Machine Services

**For Marketers.** Vending machines compliment the traditional distribution channels and enable marketers to increase the reach and intensity of their retail distribution network. Because of their around the clock self-service capability, vending machines are typically placed outdoors and in unattended environments such as the corners of factories and offices, large retail stores, gasoline stations, railroad stations, hotels, restaurants, airports, bookstores, and shopping malls. Their compact size means they can fit into many places where there is not enough space for a full-sized convenience store. A strong presence in the vending machine channel helps to enhance visibility and strengthen brand recognition in the long term (cf. Phillips 1992). The greater the exposure afforded to brands via vending machines, the stronger the brand cognition and image recognition in the integrated marketing communications program. This strategy is consistent with the fact that most successful bottlers in the United States maintain a strong presence in the vending channel. With little overhead, margins are much higher for the sales made in vending machines than for those in regular retail outlets. While the profit margin of grocery stores is 1.3 percent (before tax 2000 - 2003 average (Almanac of Business and Industrial Financial Ratios 2000-2003), the profit margin of food and beverage vending business is 3.8% percent (before tax average of 1998-2002, NAMA 2003).

**For Consumers.** Vending machines are

mainly valued by consumers for their convenience and time saving benefit (Quelch and Takeuchi 1981). They offer consumers instant transactions without the need of intermediaries; just press what you "see and want" and the product is delivered into your hands with instant gratification. Another value of vending machines lies in the fact that they offer 24-hour availability and reasonably fresh and ready to serve products (Kotler 2003). These transactional characteristics make vending machines particularly appealing for the products that are demanded around the clock, that are of impulsive demand, that do not require sales help or need to be closely inspected before purchase, and that can be sold for relatively small amounts of cash.

### Vending Machine Services Problems

Despite the many positive aspects, there are inherent drawbacks to vending machine services which may negatively affect consumers' shopping experience and the vending machine industry in the long term. First, the very nature of nonpersonal, no human contact, transactions can create unique problems that frustrate and potentially alienate consumers. Most consumers still prefer shopping in stores over shopping from vending machines. They also prefer to talk to a person before making a purchase (Trachtenberg 1994). Some consumers are not comfortable with the lack of human touch in vending machine transactions (Leaner 2002). Unlike its retail store counterpart, the machine itself cannot interactively offer consumers services accompanying a transaction, and is confined to merely dispensing the product in return for payment (even this can be a problem as discussed later in the study). When consumers are dissatisfied with their purchase, recourse is not available at all or is not as convenient as at a regular retail store. Another downside is that consumers sometimes do not feel secure because vending transactions occur in unattended and isolated environments in late hours such as on street corners in a big city or by a forlorn little motel. In addition, people become captive customers of vending machines under certain circumstances such as when no retail



outlets are available in the surrounding area or all nearby stores are closed. Products sold via vending machines are also more expensive than their counterparts available in traditional retail stores (cf: Beverage World 1992) because of their unique values as described previously and the high maintenance cost of the machine operation. All these factors contribute to consumers' negative consumption experiences with vending machine use.

### **Competition in Vending Machine Business**

If vending machine operators do not have a clear understanding of these potential problems and fail to manage them properly, then the problems may have a damaging impact on the vending machine operator's success and the industry's continued growth in the long term. Although the vending machine business often deals with captive consumers, it faces competition just as other consumer businesses do. One of the factors that keep the competitive pressure on the small business owner segment is the low entry barrier (National Automatic Merchandising Association 2002). The low entry has created a market condition that replaces inefficient small vending machine operators with new aspiring vending machine owners constantly. There is also no let up in the competitive pressure from retail stores in the neighborhood. One industry expert advised that vending machine success hinges on offering consumers unique benefits over existing stores, either in lower costs, reliable functions, or quicker service (Learner 2002). The large, institutional segment serves academic communities, hospitals, big corporations, and office buildings. These institutions replace their vending machine operator when they consider the service and quality to be inferior. Recent improvements in food and leisure service at many colleges and universities put more pressure to vending machine operators. Students and staff make the extra effort to walk to the campus center, where they can have better choice and service of drinks or snacks, passing the vending machine if it frequently malfunctions or does not have what they want. The vending machine business is also

vulnerable to the economic down turn as are other consumer businesses. Consumer spending in vending machines decreased about 5 percent in 2001 due to the sagging economy (National Automatic Merchandising Association 2002).

### **THE PRESENT STUDY: MOTIVATION OF THE STUDY**

Although the vending machine industry has witnessed remarkable growth and progress during the past two decades, most changes and improvements in the industry can be characterized as technology-driven, product-oriented, and financially motivated. It is important that vending machine business owners understand consumer behavior regarding vending machine use in order to develop a more customer-oriented marketing strategy, considering the various competitive forces discussed above. This will ensure continued success and allow the industry to compete more effectively with increasingly efficient regular retail stores and other forms of non-store retailers.

One of the challenges facing the vending machine industry is that the very nature of vending machine services makes it very difficult to systematically monitor machine-consumer transactions and/or collect data from consumers regarding their vending machine use in order to deal with these problems. This is especially the case because about 75 percent of the vending machine business is comprised of small-sized business owners who cannot afford such monitoring and research expertise (National Automatic Merchandising Association 2002).

Although several marketing management textbooks touch on the vending machine, their treatment of the topic is less than a page, describing the different types of vending machines, the kinds of products sold, and the technological advances of these machines (see Kotler 2003, Lamb, Hair, and McDaniel 2002; Peter and Donnelly 2003).

There have been no known studies in marketing and consumer behavior literature that have shed light on consumers' usage behaviors and experiences with vending machine services.

A better understanding could be extremely valuable for vending machine businesses in improving their ability to serve consumers more effectively and enhance the value of vending machine services to society.

This study is intended to make an incremental contribution by enhancing our understanding and knowledge about consumers' behavior with vending machine services, including satisfaction, dissatisfaction, and complaining behavior. Based on consumer survey data, this study will explore such issues as: the attributes consumers consider important and relevant for vending machine use; consumers' involvement with vending machines; what consumers think of vending machine services; how they feel about the level of service; the aspects of vending machine services they like or do not like; the level of their satisfaction or dissatisfaction with the service; the areas they want to see improvements in; the kinds of complaints they have and how they resolve those complaints. This study is exploratory and descriptive in nature rather than following a rigorous line of formal hypothesis testing because there is no prior research on vending machine services.

### PRELIMINARY STUDIES

Three focus group studies were conducted to explore consumer behavior with food and beverage vending machine services. The exploratory focus group studies had several objectives: 1) to learn about consumer behavior with respect to food and beverage vending machine use, 2) to identify the attributes and benefits of vending machine services that are important to consumers, 3) to understand as much as possible what consumers think and feel about their experience with vending machines, 4) to learn about consumers' satisfaction and dissatisfaction experiences and complaining behavior with vending machine use, and 5) to gather other relevant information which could help develop measurement instruments to conduct a formal survey about consumer experiences with food and beverage vending machines.

Twenty-three participants who said they used

vending machines frequently were recruited at an academic community in the northeastern United States. Three focus group sessions were conducted by the author or a graduate who was trained in focus group studies. Each session consisted of a balanced mix of administrative personnel, faculty, and students. It was found that both student and non-student populations on campus used vending machines very frequently and women appeared to patronize them more than men. Quite a few indicated that they used vending machines almost every day. Undergraduate students used vending machines far less frequently and showed a lower level of interest in them than did non-student participants. Graduate students used vending machine services heavily because they spent a greater amount of time in their department offices and campus buildings.

The focus group studies identified the key attributes and benefits of food and beverage vending machine services: convenience, consistency and reliability of the machine's functions, accessibility (i.e., location), product variety, price, and the security at the vending machine location. It is worth noting that some participants mentioned that "they don't have to deal with people" and "vending machines are less of a hassle than going to the stores." Many of these attributes confirm previous observations and insights documented in the industry reports as reviewed in this introduction. Insights were gained on the participants' dissatisfied experiences and complaining behavior as well. Many of the participants described a variety of unpleasant and dissatisfying experiences with the food and beverage vending machine service. They also expressed various emotional reactions related to the dissatisfactory experiences that included frustration, resignation, anger, bitterness, etc. Their reactions and complaints in response to such dissatisfactions were as diverse as their emotional reactions, ranging from doing nothing, speaking to others, filling out a refund request card, calling the company, and shaking or kicking the machine. Some even confided that they swore at the machine giving them trouble. These findings were used to develop classification schemes of "complaints" and "actions taken" (to be discussed

later). Insights and other relevant information generated from the focus group studies guided the design of the comprehensive survey instrument of the main study.

## THE MAIN STUDY

### The Sample and Data Collection

A campus mail survey was used to collect data from a university campus in the northeastern United States from all constituents of the academic community - the administrative staff, the faculty, and the students (graduate and undergraduate). The cover page of the survey (see Appendix A) explained its purpose as part of a research project in the business school to learn of the consumers' experiences with food and beverage vending machine services on campus. Five hundred questionnaires (see Appendix B) were distributed to various units of the university - administrative offices (e.g., Admissions, Human Resources, and Registrar), academic departments (e.g., History, Marketing, and Physics), academic support units (e.g., Computer Center, Infirmary, Physical Plant), and dormitories.

A concerted effort was made to maximize the response rate. The cover page of the survey emphasized the importance of participating in the survey to improve the quality of vending machine service around campus by stating that the results of the study would be sent to the company running the campus vending machine services. The research team made contacts with the secretaries of the campus units and asked their cooperation in distributing the surveys to the people in their units. The two page survey was formatted to allow a completed survey to be folded in half, stapled, and then returned to the research team through campus mail to the address that was already printed on the lower half of the cover page. The secretaries were also asked to collect and mail the completed surveys in their division one week after the surveys were distributed. To further increase the response rate, the research team personally requested division heads to encourage their staff and members' participation in the study. Many of them actually did; some even circulated a memo

encouraging participation in the survey. The data from graduate students were collected from their academic offices rather than from the graduate student dormitories because it was found in the focus group studies that many graduate students were living off campus. Collectively, 239 surveys were returned through these combined efforts, resulting in a 47.8 percent response rate.

For undergraduate students, 300 questionnaires were distributed in dormitories. An arrangement was made so that the surveys were available in each of the dormitory offices and the student advisor in each dorm was requested to encourage students' participation. After one week, completed questionnaires were collected in the dormitory offices. Twenty seven surveys were collected, resulting in a mere nine percent response rate. The result, though disappointing, was not surprising considering the undergraduates' low interest in the vending machine as already exhibited in the focus group studies.

Excluding 15 surveys whose responses to main questions were incomplete, a final combined sample of 251 was achieved, yielding an overall response rate of 31.4 percent of the initial 800 surveys. This response rate is considered satisfactory given the very low undergraduate response rate. The sample consists of 38 percent (94) administrative personnel, 28 percent faculty (71), 24 percent graduate students (60), and 10 percent undergraduates (24). Thirty-nine percent of the sample are singles, 50 percent are married, and the remaining 11 percent fall in the other (including missing data) category and non-responses to the question. The median age of the respondents is 36 with a range between 18 and 67. Sixty-seven percent of the respondents were female and 33 percent were male, which is consistent with the focus group studies in which female participants showed a higher level of food and beverage vending machine use. The above sample demographic profile indicates that the opinions of and experiences with the vending machine use of the participants in this study reflect reasonably well those of vending machine users in the sampling frame.

## METHOD AND RESULTS

### Involvement with Food Vending Machine Services

Zaichkowsky (1985) defined involvement as an individual's enduring perception of how relevant an object is, based on inherent needs, values, and interests. Involvement is one of the most important constructs that affects consumers' consumption experience. Therefore, it was of high interest to know how much (or little) the participants were involved with food and beverage vending machine services. The construct has been used in the services marketing context as well as in the traditional physical marketing context. A subset of Zaichkowsky's (1985) personal involvement inventory (PII) was used to measure the participants' involvement with vending machine services. Although the PII was originally developed as a set of twenty semantic differential scale items, later research revealed its redundancy (Lichtenstein, Block, and Black 1988; Munson and McQuarrie 1987). Reduced sets of items have been shown to effectively measure the construct (Celuch and Taylor 1999, Stafford and Day 1995, Zaichkowsky 1994). Seven items were initially chosen from the PII by the author by considering their face validity and relevance to vending machine use. The seven items, then, were presented to the focus group participants for their comments on their relevance regarding vending machine use. Based on careful analysis of their comments, four items were selected to be included in the study. Due to the fact that involvement was designed to be measured in the beginning section and the space constraint of the survey, the brevity of the scale was an important practical concern. The four items are: 'useless - useful,' 'unimportant - important,' 'not beneficial - beneficial,' 'means nothing to me - means a lot to me.' Seven point semantic differential scale items (1 to 7) were used to measure the participants' responses to these items. Following Zaichkowsky, the four items were used as the anchors for responses to the question, "In general, I consider the food and beverage vending machine \_\_\_\_." To check whether the four item scale constitutes the uni-

dimension of involvement with vending machines, the participants' responses were submitted to the factor analysis. As expected, all four items were loaded on one factor and they accounted for 69.72% of the variance (see Appendix C for detail). The Cronbach's alpha of this four item scale was .85. The observed alpha for this four item involvement scale is considered high because the alpha is a positive function of the number of items in the composite and when the number of items is small in the composite, the alpha tends to be conservative (Churchill and Peter 1984; Lord and Novick 1968).

The results showed that means for the four items were: 5.74 for 'useless - useful,' 5.23 for 'unimportant - important,' 5.28 for 'not beneficial - beneficial,' and 5.11 for 'means nothing to me - means a lot to me.' The mean value of the four items was 5.34. Zaichkowsky (1985) theorized that the theoretical mean for all 20 scale items of the PII is "4" and that a score below 3.54 indicates the product is a low involvement item while a score above 5.55 indicates it is a high involvement product. The mean values of some selected products presented in her 1985 study are: instant coffee 3.35, mouthwash 3.7, red wine 4.2, headache remedy 4.55, color TV 4.85, laundry detergent 5.15, calculator 5.6, and automobile 6.2. A later study reported a mean value of 4.96 for laptop computers (Lee and Olshavsky 1995). It may be feasible, although not testable in this study, to think that people whose involvement with vending machines is high may have returned the survey more than those whose involvement is low.

Taken together, it was concluded that the respondents' involvement with the food and beverage vending machine service is fairly high. The participants considered vending machine services as very useful, beneficial, important, and as meaning a lot to them.

### Usage and Popular Items on the Vending Machine

Although we know and observe that many people use vending machines, there is no reported statistics about the frequency of their use.

Therefore, we wanted to quantify the consumers' usage frequency. The participants were asked how many times they use vending machines during a week. On average, the participants used vending machines about 3 to 4 times ( $\bar{x} = 3.43$ ,  $sd = 2.86$ ) during a week. Eighty percent indicated that they use vending machines "1 - 5" times a week.

Next, analysis turned to discovering which items are popular in food and beverage vending machines. Respondents were asked to rank product types (that were identified in the focus group studies) according to how often they buy them from vending machines. Canned beverages are the most frequently purchased item, followed by a variety of snacks (including cookies, chips, candy bars, popcorn, etc.), and bottled soft drinks, respectively. Healthy foods (e.g., yogurt) and frozen foods (e.g., microwave meals) are also shown to be popular items. Hot drinks, milk, and fresh fruits (in that order) are less frequently purchased in vending machines. This result confirms previous industry reports that beverages and snacks hold a lion's share of the vending machine business. Cold beverages account for almost 30 percent and snacks account for about 26 percent of vending machine sales (Vending Times 2002).

### **Opinions and Attitudes Toward Vending Machine Services**

First, participants' opinions about food and beverage vending machine operations were probed by asking "How would you evaluate the food and beverage vending machines operations on campus?" Two 7 point bipolar scales, 'unfavorable - favorable' and 'negative - positive' were used to measure the participants' responses. Their overall evaluation, although slightly above the neutral point ( $\bar{x} = 4.17$ ) is a far cry from an enthusiastic response. Rather, it represents a tepid evaluation, considering participants' high involvement with vending machines. Next, their opinions and evaluations of specific aspects of vending machine operations were analyzed. These measurement instruments and mean values are presented in Table 1. In line with their

lukewarm evaluations, six of the twelve specific aspects of vending machine service operations were evaluated below the median point (4) of the scale. Three areas that received the lowest evaluations are the unavailability of filing a complaint ( $\bar{x} = 2.44$ ), the high price of products ( $\bar{x} = 3.01$ ), and inaccurate/no change ( $\bar{x} = 3.30$ ). Three areas were evaluated favorably. Respondents gave high marks for the convenient location of the vending machines ( $\bar{x} = 5.27$ ); the clean maintenance of vending areas ( $\bar{x} = 4.73$ ) and the freshness of the items dispensed from the machine ( $\bar{x} = 4.45$ ).

Although many of the items asked in the questionnaire may be context-specific to a particular academic community, it is reasoned that the findings are very likely to reflect consumers' experiences with food and beverage vending machine services in other campus communities, considering the similarities of the vending machine business at colleges and universities. It is also reasoned that the result would be a close representation of ordinary users' evaluations of the services at similar venues such as large office buildings, considering the fairly diverse profile of the participants.

### **Satisfaction/Dissatisfaction with Vending Machine Services**

Participants' satisfaction and dissatisfaction with vending machine services were analyzed. First, their responses to "Overall, how satisfied or dissatisfied have you been with your experiences using the vending machines on campus?" were measured on a 7 point global scale of 'highly dissatisfied - highly satisfied.' This global measure of satisfaction has been used in past consumer satisfaction research (Lee and Leelakulthanit 1994; Oliver and Bearden 1983). The respondents felt neither positive nor negative toward their experience with the vending machine services ( $\bar{x} = 4.0$ ,  $sd = 1.46$ ). Next, their level of dis/satisfaction with the vending machine service in general, not limited to their on-campus vending machine experience, was analyzed. They were asked, "Overall, how satisfied or dissatisfied have you been with your experiences using vending

**Table 1**  
**Evaluations and Opinions of Vending Machine Services**

Items*	Mean (SD)
The vending machines are 'inconveniently - conveniently' located.**	5.27 (1.53)
The areas in which vending machines are located are 'dirty - clean.'**	4.73 (1.55)
Products dispensed from the machines are 'stale - fresh.'	4.45 (1.44)
The bill changing machines 'never - always' function properly.	4.39 (1.90)
The vending machines 'never - always' function properly.	4.18 (1.40)
The range of product types available in the machines is 'narrow - wide.'**	4.01 (1.57)
The variety of available choices for each product type in the machines is 'poor - excellent.'	3.81 (1.45)
Security in the areas where vending machines are located is 'poor - excellent.'	3.62 (1.59)
The nutritional information on the items in the vending machine is 'difficult - easy' to read.	3.61 (1.90)
The vending machines 'never - always' require exact change.	3.30 (1.36)
The prices of products in the vending machine are 'expensive - inexpensive.'	3.01 (1.53)
The available means in which you can file a complaint are 'unsatisfactory - satisfactory.'	2.44 (1.65)

\* In the survey, the bipolar adjectives were anchored on a 7 point scale which was presented separately to respondents from the question itself. For example, Question: "The vending machines are \_\_\_\_\_ located."

Response: 'inconveniently 1 2 3 4 5 6 7 conveniently'

\*\* These questions were reversely phrased in an effort to minimize potential pattern responses, and hence the means of those items were converted to make them comparable to the means of other items.

machines in general: on campus and off campus?" Their responses on the same global scale ( $\bar{x}$  = 4.31,  $sd$  = 1.34) indicate that their experience with the vending machine service in general is slightly better than their experience with the vending machine service on campus. Taken together, the results indicate that the level of services consumers experience with vending machine use is not sufficiently satisfactory in light of the benchmark standard of consumer satisfaction reported by Jones and Sasser (1995). They reported that when measured on a 1 (completely dissatisfied) to 5 (completely satisfied) scale, satisfied consumers (4) are six times more likely to defect than completely satisfied consumers (5). They concluded that in today's highly competitive marketing environment, even satisfaction is not sufficient. Therefore, this result indicates that food and beverage vending machine business owners, especially the on-campus operators, must improve their services and operation. Further analysis revealed the interesting fact that there are negative correlations between the participants' satisfaction and their involvement with vending machines ( $r$  = - 0.30,  $p$  = .001 for general

satisfaction;  $r$  = - 0.28,  $p$  = .01 for on campus satisfaction). The higher the degree of involvement with vending machines, the greater the degree of dissatisfaction with the vending machine service.

### **Comparison of Vending Machine and Retail Store Shopping Experiences**

The vending machine represents one of the most important alternative distribution channels to traditional retail store for consumers, especially for food and beverage items. Therefore, it is especially useful to find out how consumers compare their shopping experience with vending machines to their shopping experience for similar products at traditional retail stores. Although retail stores and vending machines offer different kinds of benefits and consumers may use different shopping criteria, consumers are likely to be able to make an overall comparative evaluation, considering that retail stores are the closest substitute for vending machines for food and beverage items and the two compete at the core benefit level (Kotler 2003). Therefore, this

**Table 2**  
**Vending Machine Shopping vs. Store Shopping**

*"How would you compare the above feeling\* with your equivalent shopping experiences at regular retail stores?"*

<u>Scale</u>	<u>Percentage</u>
1. much worse	14.6
2. somewhat worse	25.5
3. slightly worse	17.8
4. about the same	27.1
5. slightly better	4.0
6. somewhat better	4.0
7. much better	6.9
	100% (total 247)

\* This refers to the overall satisfaction/dissatisfaction with the vending machine experience in general that was asked in a preceding question (see Appendix B).

comparative evaluation will help vending machine operators diagnose the level of their services and operation. The respondents were asked how their shopping experiences with vending machines compare to their comparable shopping experiences at regular retail stores. Responses were measured on a 7 point scale of 'much worse' (1) to 'much better' (7). It was revealed that their satisfaction with vending machines is lower than the satisfaction they experienced at regular retail stores ( $\bar{x} = 3.2$ ,  $sd = 1.65$ ).

As shown in Table 2, only 10.9 percent considered their vending machine experience 'better' than their equivalent retail store experience, whereas 43.3 percent thought their vending machine experience was 'worse' and 27.7 percent considered the two shopping experiences to be the same. It was also determined that the more the respondents were involved with vending machines, the more negatively they viewed their experience with vending machines as compared to their comparable retail store shopping experiences ( $r = -0.16$ ,  $p = .012$ ). This finding is consistent with the

participants' generally negative or lukewarm experiences with vending machine services. Therefore, it is concluded that consumers' shopping experience with vending machines is not up to par with comparable shopping experiences in retail stores.

#### **Dissatisfying Experiences with Vending Machine Services**

There are many anecdotes and personal experiences which attest that vending machines give rise to a host of problems for their users. This study is intended to identify and document such dissatisfying experiences and incidents regarding food and beverage vending machine use. The participants were asked to describe an occasion in which they had a negative experience with a vending machine. Two hundred forty-four out of two hundred fifty-one participants responded to this open-ended question with 189 respondents (77%) indicating the incident took place on campus and 55 (23%) indicating the incidents took place off campus. One hundred

**Table 3**  
**Dissatisfying Experiences with Vending Machine Services**

<u>CATEGORIES</u>	<u>FREQUENCY</u>
1. <i>Machine Malfunction</i>	109
<ul style="list-style-type: none"> <li>• The machine took money but did not dispense the desired item.</li> <li>• The product got stuck in the machine.</li> <li>• The machine repeatedly rejected dollar bills.</li> <li>• The machine gave incorrect or no change.</li> <li>• Coins got stuck in the machine.</li> <li>• The machine dispensed an incorrect item.</li> <li>• No change was returned when an item was not available.</li> <li>• A can of soda opened inside the machine, making a mess.</li> <li>• A finger got hurt on a vending machine which had a faulty coin return lever.</li> </ul>	
2. <i>Inadequate or No System of Requesting Refunds and Filing Complaints</i>	63
<ul style="list-style-type: none"> <li>• Refunding required unreasonable amounts of effort.</li> <li>• Stale items could not be exchanged.</li> <li>• Complaint cards were not available.</li> </ul>	
3. <i>Lack of Responsiveness to Complaints</i>	37
<ul style="list-style-type: none"> <li>• The Vending Services Office was not responsive to complaints.</li> <li>• Never got any response after mailing out a refund card.</li> <li>• Didn't get the refund that they said they would process when I called.</li> </ul>	
4. <i>Poor Quality of Food Items in Vending Machines</i>	20
<ul style="list-style-type: none"> <li>• The food item was stale.</li> <li>• Food quality was abominable.</li> <li>• When school was not in session, milk was spoiled.</li> <li>• Apples were bruised.</li> <li>• Peaches were wrinkled.</li> </ul>	
5. <i>Inadequate Service with Vending Machine Operations</i>	11
<ul style="list-style-type: none"> <li>• Preferred items were out of stock in the vending machine.</li> <li>• Many items were not stocked in the vending machine.</li> <li>• No bill changer was available in the vicinity.</li> <li>• No napkins or paper trays were available at the vending machine site.</li> </ul>	
6. <i>Others</i>	4

forty-eight (61%) indicated the incident happened within the past year, indicating the experience is relatively fresh in their memories. The high proportion of respondents (97%) to this question suggests that the negative feelings arising from the incidents were strong. Respondents' descriptions were classified into five broad categories: 1) various kinds of machine malfunctions and defective vending machines; 2) the inadequate system of refund request and filing complaints 3) the vending machine operators' lack of

responsiveness to users' complaints; 4) quality of food items offered in the vending machine; 5) the various inadequate service aspects surrounding vending machine operations.

Next the respondents' emotional status at the time of the incident they had described was probed, asking "how did you feel when you were faced with the situation just described?" Their responses were measured on two 7 point scales of 'very frustrated' (1) to 'not at all frustrated' (7) and 'very angry' (1) to 'not at all angry' (7). The



means were 1.96 (sd = 1.18) for 'frustrated' and 2.30 (sd = 1.25) for 'angry.' It is evident that the respondents experienced very strong negative emotions in relation to the incidents.

### **Complaining Behaviors**

As described previously, vending machines give rise to a host of problems and frequently frustrate users. To discover what kinds of complaining actions the users take when they experience problems, respondents were asked, "what action did you actually take regarding the problem with the vending machine you just described?" A list of alternatives was provided that had been identified in the focus group studies.

The respondents were told to check more than one item if appropriate. Research has shown that some consumers take multiple complaining actions (Blodgett and Granbois 1992, Huefner and Hunt 2000), as was confirmed in the focus group studies. Table 4 presents various complaints actions and descriptive statistics of the actions the respondents took. The complaint actions are grouped into no action, private action, negative word of mouth, exit, public action, and redress seeking action categories. As shown in the table, users reported various complaining behaviors. The private form of complaining behavior, "pounded or banged the machine out of frustration or anger" is ranked first (19.4%), closely followed by no action (18.9%). There may well be various motives behind this action. If such an act is out of simple emotional venting, it may not be a complaint action. However, if the intention was to leave behind a physical sign of displeasure to the vendor by inflicting physical damage on the machine, such an act is clearly a form of private complaint action. Another prevalent type of complaining was negative word of mouth by "talking to other people about the incident" to express their frustration with the incident (18.3%). Sixteen percent of the respondents stopped using the machine that gave them trouble (exit). Some respondents engaged in a public form of complaining either by "posting a note of warning on the machine for others" (5.4%) or by talking to the available personnel on site or a nearby office

(5.8%). Some determined consumers actually took "redress seeking complaining actions." They filed their complaint and asked for a refund by filling out a refund request form and mailing it (13.1%). A small number of people took pains in calling the company to lodge their complaint and ask for a refund (3.1%).

### **Comparable Retail Store Complaints**

Since many consumers have dissatisfying experiences with various small retail store purchases similar to ones made with vending machines, we were very interested in finding out how the respondents would have reacted if they had experienced a similar incident in a traditional retail store. The question "if you had the same kind of experience at a regular retail store, were you likely or unlikely to have taken some action? (e.g., ask for a refund, ask for a replacement, complain to the service clerk)" was asked. The respondents' reactions to this inquiry were measured on a 7 point scale of mostly likely (1) - not likely (7). The overall mean is 1.91 (sd = 1.56) which is much lower than median point of 4. This may help us understand why the respondents expressed strongly negative emotions at the time of the incidents as described previously. That is, considering that they most likely would have complained to the store employee if they had such an incident (or a similar one) in a store, it is natural that their frustration and/or anger were intense because nobody was on site to complain or no system of remedy was available. Further analysis with the mean values broken down into the complaint action categories offers additional insight. The mean values presented in the last column of Table 4 reveal the pattern of correlations between the complaint actions they took and the likelihood of taking remedy seeking actions in stores. That is, as the respondents' complaint actions regarding vending machines move from no action, to private action, to public action, to remedy seeking actions, the likelihood of their taking remedy seeking actions at regular retail stores also gets higher. The oneway ANOVA showed that the means were significantly different ( $F = 2.50$ ,  $df = 8$ ,  $p = 0.017$ ). This may

**Table 4**  
**Summary of Complaint Actions Taken**

COMPLAINT ACTIONS	VENDING MACHINES			RETAIL STORES		
	Frequency	Percentage	Rank	If it happened in a store*		
				$\bar{x}$	(sd)	frequency
<b>No Action</b>						
Did nothing	85	18.9%	2	2.44	(2.04)	55
<b>Private Action</b>						
Pounded or banged the machine out of frustration or anger	87	19.4	1	2.44	(1.91)	27
<b>Negative Word of Mouth</b>						
Talked to people about the incident and/or warned them of it	82	18.3	3	1.61	(0.96)	28
<b>Exit</b>						
Stopped using the vending machine that caused them trouble	72	16.0	4	1.91	(1.59)	46
<b>Public Action</b>						
Posted a note on the machine warning others	24	5.4	7	1.50	(1.23)	6
Talked to available personnel on site or at a nearby office	26	5.8	6	1.36	(0.50)	14
<b>Redress Seeking Action</b>						
Filled out and mailed a Refund Request Form	59	13.1	5	1.51	(1.12)	13
Called the company to complain	14	3.1	8	1.62	(1.12)	13
	449**	100%				

\* If you had the same kind of experience at a regular retail store, were you likely or unlikely to have taken some action?  
1 (most likely) - 7 (not likely)

\*\* Since the participants were allowed to check more than one item, the total frequency is greater than the sample size (n = 251).

suggest that there are certain personal traits that influence individuals to take different types of complaint actions when they experience dissatisfying incidents. Day, Grabicke, Schaetzle, and Staubach (1981) proposed that an individual's "propensity of complain" influences a dissatisfied consumer's complaining behavior.

#### **Vending Machine Company's Responses to Customer Complaints**

To find out how vending machine operators responded to the customers' complaints, respondents were asked whether they received a satisfactory remedy from the vending machine service company for their complaint. Among the 99 respondents who had taken a redress seeking complaint action against the company (i.e., those who had checked one of the items under Redress Seeking Actions in Table 4), only 28 people

(22%) indicated that they received a satisfactory remedy. This figure does not compare positively with the previously reported comparable figures. Strauss and Hill (2001) reported that among the consumers who complained through e-mail to the retailers and manufacturers in the U.S., 47 percent received responses and 26 percent received redress. Moore, Maxwell, and Barron (1996) found that 39 percent of consumer complaints received responses and 29 percent received an apology or explanation from the retailers in Britain. This finding explains why the lack of responsiveness to complaints is high on the users' complaint list and underlines the importance of improving the availability of and the handling of refund requests and complaints.

**Improvements Users Suggested.** It would be of great interest for vending machine operators to be aware of the suggestions consumers have for

**Table 5**  
**Suggestions for Improvements\***

SUGGESTED ITEMS	FREQUENCY
1. Offer a wider variety of items.	53
2. Offer more healthy and nutritious items.	42
3. Improve refund and complaint processes.	35
4. Reduce prices.	22
5. Improve the mechanical functioning of the machines.	19
6. Increase the number of vending machines and available locations.	14
7. Improve attendant services.	13
8. Improve maintenance of machines.	11
9. Improve the quality and freshness of items carried.	10
10. Improve the convenience of vending machine locations.	8
11. Introduce new technology to vending machines.	6
12. Others	6
* Some respondents listed more than one suggestion, each of which was counted as a separate item.	

improving vending machine services. They were asked: "what kinds of improvements on vending machines would you like to suggest to the vending machine service company to serve you better?" The respondents offered many useful, legitimate, and interesting suggestions. A number of wide ranging suggestions are grouped into ten categories based on the contents of the comments. These categories and their frequencies are presented in Table 5. Although respondents mentioned all five types of the dissatisfying experiences discussed previously, the scope of their suggestions is much broader and reveals many areas that do indeed need attention of vending machine operators. Topping the list is the respondents' desire for a wider variety of food and beverage products carried in vending machines. Next is their desire for healthier and more nutritious items available. Improvements in refund request and complaint filing is the third item. This particular problem, which received the worst evaluation in the survey, has consistently been identified as the most serious drawback of vending machine services in this study. Respondents also suggested that the prices of

products sold in vending machines be reduced. As indicated, prices received the second lowest evaluation. Consumers would also like to have more vending machines available, as well as an improved level of service and maintenance. Other suggestions include higher product quality, more convenient locations, and enhancement of technology.

## DISCUSSION

Despite the ever-increasing presence and pervasiveness of vending machines in consumers' lives, there have been no studies in marketing and consumer behavior literature that have investigated consumers' consumption experiences with vending machines. This study reported the first empirical findings on consumers' usage behavior, opinions, attitudes, satisfaction, dissatisfaction, and complaint behavior regarding the services rendered by food and beverage vending machines.

The results show that the consumers' involvement level with vending machines is higher than with many products that have long

been a part of consumers' daily lives at home such as TV, coffee, laundry detergent, and red wine. Consumers recognize vending machines as quite useful, beneficial, and important. Their frequent use of a variety of food and beverage products in vending machines, indicates the value of vending machines in their lives. These findings testify that the vending machine has actually become one of the most important non-store marketing channels as Quelch and Takeuchi (1981) predicted more than two decades ago. The vending machine industry should develop strategies to preserve and solidify these invaluable assets, the high consumer involvement and patronage. At the same time, the industry needs to look at those problem areas exposed in this study and incorporate consumers' suggestions for improvements, for its continued growth and expansion.

Compared with the high consumer involvement and patronage, vending machine services received only tepid evaluations in many areas. While consumers' evaluations were positive in location convenience, cleanness of vending machine sites, and freshness of items bought, their opinions about many other aspects were not as positive. Consumers were highly critical of the refunding request and complaint filing procedures, product prices, and machine functional problems. Satisfaction and dissatisfaction data reveal that consumers are not sufficiently satisfied with their vending machine experiences. This finding should be taken as a serious warning sign that the food and beverage vending business owners must improve their operation and services. Consumers' unfavorable comparison of their vending machine experiences to their shopping experiences at retail stores combined with their dissatisfying experiences confirm the seriousness of these lukewarm consumer evaluations and lower satisfaction level. Only about 11 percent of consumers consider vending machine shopping to be more satisfying than their comparable store experience. Vending machine operators must enhance the consumer's desire for shopping with vending machines by addressing the problems identified in the study.

The three areas in which consumers were most greatly dissatisfied as revealed in this study are all

intertwined. Machine malfunctions result in the loss of money; users are frustrated with the inadequate system of requesting refunds and filing complaints; and those who do ask for a refund or complain either do not receive a satisfactory remedy from vending machine operators or get no response to their complaint all together. One of the clearest findings that emerged from this study is that consumers become very frustrated and angry when there is a lack of or no existence of a system at vending machine locations that would allow them to solve these problems. This appears to be a continuing source of frustration, anger, and dissatisfaction.

The weakest part of vending machine transactions is that the machine alone handles all aspects of a transaction with no human contact or interaction. Most of the consumer dissatisfactions and complaints identified in this study probably would have never occurred or might have been easily resolved if a service person was at hand. However, this no-human contact is the very essence of the vending machine business and cannot be corrected. Although the level of service or communication at vending machine sites will not match the face-to face interactions in stores, proper accommodations at vending machine sites can significantly mitigate these problems. Providing refund request cards or envelopes in which the user is allowed to briefly describe the nature of the incident/complaint, the amount of money lost, and the mailing/contact address, or merely posting a 1-800 phone number(s) to call would be sufficient in addressing most of the consumers' problems. However, it is very surprising to discover that these relatively simple procedures are not in place at so many vending machine sites. The results of this study have confirmed the previous findings that a lack of proper procedures contributes to dissatisfaction and negative word of mouth (Blodgett, Granbois, and Walters 1993, Tax, Brown, and Murali 1998). It is important to note that when consumers have no recourse or venue for complaining or remedying their problems, their intensely negative emotions of frustration and anger would lead some consumers to engage in retaliatory actions including vandalism (Huefner and Hunt 2000).

Vandalism has actually been one of the vending machine industry's most prevalent problems and is a chronic source of economic damage to vending machine operators (Fitzell 1991, Sfiligoj 1994). In conclusion, the provision of complaining procedures and a refunding system at vending machine sites should be one of the most immediate areas of improvement from both managerial and economic perspectives. It is also important for vending machine operators to be far more responsive to consumer complaints to enhance the consumers' perception of procedural justice. It is unsettling that among those who took a formal complaint action, only 22% reported that they received a satisfactory remedy by the vending machine service company.

The present study identified various forms of complaining actions that vending machine users take. Most of them are private forms of complaining actions along with mild forms of public complaining actions, including negative word of mouth. Although a relatively small proportion of users (16%) took formal complaint actions, this proportion is much higher than the complaint ratio of about 10% reported by Technical Assistance Research Programs (1986). This is a clear indication that users are highly involved with vending machines and that the level of user dissatisfaction with vending machines is high.

Although the present study is primarily descriptive, intriguing findings regarding consumer involvement warrant more careful investigations about its role in consumer satisfaction and dissatisfaction in service marketing settings. It was found that the more the consumers are involved with vending machines, the more dissatisfied they are with vending machine services, and the more negatively they rate their experiences with vending machine shopping in comparison to similar retail store shopping experiences. It is postulated that when the level of vending machine service is low as found in this study, highly involved consumers who use vending machines more will be more sensitive to dissatisfying experiences than low involvement consumers. By the same logic, when the level of service quality is high, highly involved

consumers are more likely to experience a higher level of satisfaction than less involved consumers. Empirically testing these propositions will offer new insight into the relationship between satisfaction/dissatisfaction and involvement in services marketing. Celuch and Taylor (1999) have suggested that involvement research holds the potential for increasing our understanding of customer-service relationships, as well as offering insights to service marketing practitioners.

Although this research is the first empirical study that has shed light on consumer behavior with vending machine services, the study has some limitations. This study is based on a sample from a single academic community. Although academic and office locations account for about 37 percent of food and beverage vending machines, there are other important venues such as manufacturing and warehouse facilities (35 percent) and retailing sites (12%) (National Automatic Merchandising Association 2002). More empirical studies with such vending machine venues need to be conducted to discover similarities and differences among them. That will help us get a more comprehensive view of consumer behavior and experiences with vending machine use. Since the present study only dealt with the food and beverage vending machine, consumer experience with other types of vending machines (cigarettes, music CDs, and sundries/toiletries, whose shares in the vending machine business are growing) needs to be investigated in future research.

Despite these limitations, the present study makes contributions to non-store marketing and consumer behavior literature by shedding light on various aspects of consumer behavior with food and beverage vending machines, including satisfaction, dissatisfaction, and complaining behavior.

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**Appendix A**  
**Cover Letter and Instructions**

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A SURVEY  
ON  
THE EXPERIENCE WITH FOOD AND BEVERAGE VENDING MACHINES

Dear Participant:

The marketing research team in the School of Business is conducting a consumer satisfaction study. Please take a few moments to complete the attached survey. The study is about your experiences with food and beverage vending machines, including the ones around campus. The result of this study will be made available to the company that operates vending machines on campus. Thus, your participation in the survey is very important in improving the vending machine service around campus. Please be assured that your responses will be confidential and anonymous. If you have any questions about the study, call Professor Dong H. Lee, School of Business, at xxx-xxxx. Thank you very much for assisting us in this study.

\*\*\*\*\*

P.S.: Please return your completed survey by Campus Mail. Fold the survey in half and staple it. The return address is already printed on the lower part of this page. We would appreciate your returning the survey as soon as possible - hopefully within 5 days.

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**Appendix C**  
**Factor Analysis of Four Involvement Items**

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<u>Variables</u>	<u>Factor Loading</u>	<u>Communality</u>
Useful	.718	.515
Important	.873	.762
Beneficial	.868	.753
Means to me	.871	.758

Eigenvalue (Sum of Square): 2.79

Percent of Variance: 69.72

Unrotated one factor was extracted by principal component analysis.

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## Appendix B

### Questionnaire\*

Please circle the number on the scale below that best indicates your feelings.

In general, I consider the food and beverage vending machine:

Useless	1	2	3	4	5	6	7	Useful
Unimportant	1	2	3	4	5	6	7	Important
Not Beneficial	1	2	3	4	5	6	7	Beneficial
Means nothing to me	1	2	3	4	5	6	7	Means a lot to me

Approximately, how many times do you use vending machines during a full week: *on campus and off campus?* \_\_\_\_\_ time(s) (e.g., 0, 1, 2, 3, ....)

1      2      3      4      5      6      7

Please rank these product types according to how often you buy from vending machines. Put a 1 next to the one you buy most often, a 2 for the second most often, and so forth.

_____ Bottled beverage	_____ Fruits (e.g., apple)	_____ Milk	_____ Health foods
_____ Canned beverage	_____ Snacks (e.g., cookies, chips, candy bars, popcorns)		
_____ Hot drinks	_____ Frozen foods (meals)	_____ Other; Specify: _____	

How would you evaluate the vending machines *operations* on campus? (food and beverage)

Unfavorable	1	2	3	4	5	6	7	Favorable
Negative	1	2	3	4	5	6	7	Positive

Below is a set of statements about the vending machines service on campus. Please circle the number from the scale that indicates your opinion most accurately.

1. The vending machines are \_\_\_\_\_ located.  

Conveniently
1   2   3   4   5   6   7
Inconveniently
2. The areas in which vending machines are located are \_\_\_\_\_.  

Clean
1   2   3   4   5   6   7
Dirty
3. The prices of products in the vending machine are \_\_\_\_\_.  

Expensive
1   2   3   4   5   6   7
Inexpensive
4. The range of product types (see question B) available in the machines is \_\_\_\_\_.  

Wide
1   2   3   4   5   6   7
Narrow
5. In general, the variety of available choices for each product type in the machines is \_\_\_\_\_.  
(e.g.: brands, flavors, low fat vs. regular, low sugar, low calorie, chicken burrito vs. hamburger)  

Excellent
1   2   3   4   5   6   7
Poor
6. Products dispensed from the machines are \_\_\_\_\_.  

Stale
1   2   3   4   5   6   7
Fresh



### Appendix B (cont.) Questionnaire

7. The vending machines \_\_\_\_\_ function properly.

Always 1 2 3 4 5 6 7 Never

8. The bill changing machines \_\_\_\_\_ function properly.

Always 1 2 3 4 5 6 7 Never

9. The vending machines \_\_\_\_\_ require exact change.

Always 1 2 3 4 5 6 7 Never

10. The nutritional information on the items in the vending machine is \_\_\_\_\_ to read.

Difficult 1 2 3 4 5 6 7 Easy

11. Security in the areas where vending machines are located is \_\_\_\_\_.

Poor 1 2 3 4 5 6 7 Excellent

12. The available means in which you can file a complaint are \_\_\_\_\_.

Unsatisfactory 1 2 3 4 5 6 7 Satisfactory

Overall, how satisfied or dissatisfied have you been with your experiences using the vending machines on campus?

Highly Dissatisfied 1 2 3 4 5 6 7 Highly Satisfied

How satisfied or dissatisfied have you been with your experiences using vending machines in general: on campus and off campus?

Highly Dissatisfied 1 2 3 4 5 6 7 Highly Satisfied

How would you compare the above feeling with your equivalent shopping experiences at regular retail stores?

much worse somewhat worse slightly worse about the same slightly better somewhat better much better

What kinds of improvements on vending machines would you like to suggest to the vending machine service company to serve you better? List suggestions if you have any.

Think about an occasion in which you had a negative experience with a vending machine whether it was an on-campus or off-campus incident.

1. Please describe the situation very briefly.

This happened \_\_\_\_\_ on-campus; \_\_\_\_\_ off-campus in \_\_\_\_\_ (year).

2. How did you feel when you were faced with the situation just described? Circle the number that best indicates your feelings.

Very Frustrated 1 2 3 4 5 6 7 Not at all Frustrated

### Appendix B (cont.) Questionnaire

- Very Angry 1 2 3 4 5 6 7 Not at all Angry
3. If you had the same kind of experience at a regular retail store, were you likely or unlikely to have taken some action? (e.g., ask for a refund, ask for a replacement, complain to the service clerk)

Most Likely 1 2 3 4 5 6 7 Not Likely

4. What action did you actually take regarding the problem with the vending machine you described? You can check more than one item if appropriate.

- (1) ☐ Did nothing
- (2) ☐ Pounded or banged the machine out of frustration or anger
- (3) ☐ Talked to people about the incident and/or warned them of it
- (4) ☐ Stopped using the vending machine that cause the trouble
- (5) ☐ Posted a note on the machine warning others
- (6) ☐ Talked to available personnel on site or nearby office
- (7) ☐ Filled out and mailed a Refund Request Form
- (8) ☐ Called the company to complain
- (9) ☐ Other; *Please describe.* \_\_\_\_\_

5. If you checked item (7) or (8) (if you did not, skip this question), did you get a satisfactory remedy? ☐ Yes ☐ No

The information you provide here will help us to understand the results of this study better. Please be assured that your responses are anonymous and confidential.

Status: ☐ Freshman ☐ Junior ☐ Graduate ☐ Staff  
☐ Sophomore ☐ Senior ☐ Faculty ☐ Other

Residence: ☐ On Campus ☐ Off Campus

Sex: ☐ Male ☐ Female

Marital Status: ☐ Single ☐ Married ☐ Other

Age: \_\_\_\_\_

Thank you very much for your participation.

\* The original survey included a number of other questions that are not presented here because they were not relevant to the present study. However, the sequence of questions presented here is the same as in the original questionnaire.